



24th EIFCA Statutory Meeting

To be held at:

**The Boathouse Business Centre
1 Harbour Square, Nene Parade
Wisbech, Cambs PE13 3BH**

**Wednesday
1st June 2016**

1030 hours

Meeting: 24th Eastern IFCA Meeting
Date: 1 June 2016
Time: 10:30hrs
Venue: The Boathouse Business Centre,
1 Harbour Square, Nene Parade,
Wisbech, Cambridgeshire, PE13 3BH



"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."

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 23rd Eastern IFCA Meeting, held on 27 April 2016 - *Chair*
- 5 Matters arising (including actions from last meeting) – *Chair/Clerk*
- 6 2016 Wash cockle fishery – *Senior Research Officer/CEO*

Any other business

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

J. Gregory
A/Chief Executive Officer
17 May 2016

23rd Eastern IFCA Meeting

"Eastern IFCA 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 Eastern IFCA took place at The Boathouse Business Centre, Wisbech, Cambs, on 27th April 2016 at 1030 hours.

Members Present:

Cllr Tony Goldson	Chair	Suffolk County Council
Shane Bagley		MMO Appointee
Roy Brewster		MMO Appointee
Cllr Peter Byatt		Suffolk County Council
Cllr Hilary Cox		Norfolk County Council
John Davies		MMO Appointee
Cllr Richard Fairman		Lincolnshire County Council
Paul Garnett		MMO Appointee
Tom Pinborough		MMO Appointee
Keith Shaul		MMO Appointee
Rob Spray		MMO Appointee
John Stipetic		MMO Representative
Cllr Tony Turner MBE JP		Lincolnshire County Council
Stephen Worrall		MMO Appointee
Stephen Williamson		MMO Appointee

Eastern IFCA (EIFCA) Officers Present:

Andrew Bakewell	Head of Finance
Frances Burrows	Project Officer
Jason Byrne	IFCO
Nichola Freer	Head of HR
Luke Godwin	Staff Officer
Julian Gregory	Acting Chief Executive Officer (ACEO)
Ron Jessop	Senior Research Officer
Simon Lee	Senior IFCO - Compliance
Judith Stoutt	Senior Marine Environment Officer

Outside Bodies

Emma Thorpe	Natural England
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Minute Taker:

Jodi Hammond

EIFCA16/20 Item 1: Welcome by A/CEO

The A/CEO welcomed members to the meeting and began by reminding members that the roles of Chair and Vice Chair required re-election on an annual basis.

EIFCA16/21 Item 2: Election of Chair of the Authority

Nominations were requested for the role of Chair of the Authority.

It was Resolved that Councillor Goldson should continue in the position of Chairman for a second year.

Proposed: Cllr Turner
Seconded: Mr Pinborough
All Agreed

EIFCA16/22 Item 3: Apologies for Absence

Apologies for absence were received from: Messrs Bolt & Morgan (MMO Appointees), Donnelly (NE Representative) and Hirst (EA representative) and Cllrs Baker and Wilkinson (Norfolk CC).

EIFCA16/23 Item 4: Declarations of Members Interest

Messrs Bagley, Brewster, Garnett and Williamson declared an interest in Item 19 on the Agenda.

EIFCA16/24 Item 5: Election of Vice-Chair of the Authority

It was Resolved that Councillor Cox remain in the position of Vice-Chair of the Authority for a second year.

Proposed: Mr Pinborough
Seconded: Cllr Fairman
All Agreed

EIFCA16/25 Item 6: Minute of the 22nd Eastern IFCA Meeting, held on 27th January 2016

There was one minor amendment to item 16/10.

Members Resolved to sign the minutes as a true record of the meeting.

Proposed: Mr Shaul
Seconded: Mr Garnett
All Agreed

EIFCA16/26 Item 7: Matters Arising

With regard to the question of whether or not the CEO on secondment could legally take decisions for Eastern IFCA Members were advised that whilst the CEO (Phil Haslam) was available to provide advice if required, he would not be involved in decision making.

EIFCA16/13: The ACEO advised members that this had been addressed by being included as one of the research priorities in the Business plan.

EIFCA16/27 Item 8: Health & Safety Risks and Mitigation

The Head of HR had added a table for clarity which depicted the accidents / incidents which had occurred during the last three month period. During that period there had been three accidents all of which had been followed up and appropriate action taken.

Cllr Byatt questioned what was involved in the modifications which had been made to the throttle length. He was advised this would involve repositioning the throttle on FPV Sebastian Terrelinck, which would not be costly to put right.

Members were also advised that the H&S services which were provided by Norfolk County had been reviewed a comparison of the previous year's service had been provided as well as an outline of the safety risk at strategic level.

Members agreed to note the report.

At this point the ACEO advised members there would be an item for discussion under Any Other Business, which would be discussion of the Whelk Byelaw.

EIFCA16/28 Item 9: MMO appointee appraisal process

Members were reminded that the MMO makes appointments to the Authority members under MACAA. Each appointee can serve for a maximum period of 10 years, although the MMO have put steps in place to stagger the end date to ensure that the whole set of MMO Appointees are replaced at one time. In order to ensure members remain pertinent to the Authority the MMO had drawn up guidance for an Annual appraisal scheme for MMO Appointees.

The Chair, Vice-Chair and ACEO had discussed the guidance and felt the process was not too onerous and it was therefore proposed that the Chair and Vice Chair would carry out the appraisals during November each year.

Mr Spray felt the process seemed straightforward but questioned whether the 10 years maximum service was from the inception of the IFCA or from the current term. The ACEO advised it was from the inception of the IFCA.

Councillor Turner commented that he thought the MMO Appointees did a very worthwhile job and questioned whether it was possible to ask the MMO to cover expenses. The ACEO advised that the MMO don't pay expenses it is up to each individual IFCA to decide whether or not to pay Appointees expenses, which EIFCA considered annually and would be discussed during a later item on the agenda.

Members Resolved to adopt the recommended process for the annual appraisal of general members.

Proposed: Mr Worrall

Seconded: Mr Brewster

All Agreed.

EIFCA16/29 Item 10: Review of the Eastern IFCA Constitution

The Annual review of the Constitution had been prepared having taken advice from NPLaw. In line with that advice some amendments had been made all of which were set out in Appendix A. Whilst none of the changes were significant they did bring the Constitution in line with the Localism Act 2011. There were some elements which required further negotiation but the ACEO asked members to agree to the changes as set out and agree to the ACEO continuing negotiations with regard to Registered Declarations of interest with regard to income and dispensations to vote. Cllr Byatt questioned whether close family members should be part of the declaration of interest, the ACEO advised on the wording of the Localism Act and said that the Authority may be able to take a view to take it further, however this had never been done in the past.

Members Resolved to Agree to the proposed changes to the Constitution and Standing Orders

Proposed: Mr Stipetic

Seconded: Mr Worrall

All Agreed

Members further Resolved that the ACEO be delegated authority to continue negotiations with regard to Declarations of Interest.

Proposed: Mr Davies

Seconded: Mr Spray

All Agreed

EIFCA16/30 Item 11: WFO 1992 Cockle Fishery 2016

The ACEO reminded Members that the previous cockle fishery had been extended resulting in almost 5,000t being taken despite the original TAC being set at 2,000t. During the recent cockle surveys it had been possible to keep two beds open to maintain the fishery, at the request of the industry.

The initial indication from the recent surveys were that there may be significant levels of stock for the forthcoming season. If the anticipated outcome is correct members were advised that this could create potential issues with ridging out and die of due to A-typical mortality.

The ACEO advised it may be necessary to adopt contingency management measures to take the decision to open the fishery early, prior to the planned meeting in June to discuss the fishery. If this was the case any stock taken prior to the decisions being made in June would be removed from the 2017 TAC.

The Head of Research had analysed some data from the recent surveys but still had three major beds to analyse. However, he felt the threat of A-typical mortality was likely with the warm water temperatures and weakened cockles due to spawning. He also felt the risk of ridging out was probable in areas of high density cockles where they can no longer bury into the sand, this would also make them susceptible to loss as a result of rough weather.

Members were advised of the initial findings from the surveys and the likelihood that the initial TAC could be in the region of 5,000t.

The ACEO advised members that the meeting in June would consider different mechanisms for the harvesting of cockles as well as considering opening dates and the potential to vary the total daily quota for a hand worked fishery in exceptional circumstances.

There was some concern as to the ability to vary the daily quota without going to the Minister for consent however the Staff Officer believed it would be possible with a policy in place. The ACEO acknowledged the need to investigate further whether the Authority had the ability to do this.

The ACEO also advised there was likely to be debate over whether or not the fishery should be open to dredging. Mr Bagley said that the success of the hand-worked approach was self-evident with an improved TAC each year. The A/CEO suggested that members might want to consider

whether the fishery should be a hand worked fishery only, with dredging retained only as a contingency option.

Cllr Fairman questioned whether increased daily quota would eradicate the need for fishers to take more than the daily quota. The ACEO felt there would always be an element who would take more but it may be less of an incentive to take more. He did believe it highlighted the need for more flexibility in management measures.

Cllr Worrall felt it was important to be flexible to both methods.

Mr Garnett questioned whether opening the fishery early and applying the 2015/16 management measures would mean the same areas would remain closed. The Head of Research advised that the Thief Sand was closed and prone to ridging so it would be included in the open beds. Wrangle and Friskney were also likely to be affected by a-typical mortality so he felt they should also be opened.

The ACEO felt that the 2015/16 management measure would have some amendments but the daily quota and open days would remain the same.

Ms Thorpe questioned whether an increase in the Daily Quota would mean an increase in the amount of prop washing. The ACEO advised that prop washing can often release more cockles than are required, which meant that cockles were sometimes left on the sands. He acknowledged there was a train of thought that a higher quota could lead to more prop washing.

Referring to the opening of some currently closed areas Mr Garnett suggested the industry should be consulted as he was fairly certain the industry would prefer to see the Thief Sand remain closed to allow further growth whilst some areas of the Gat should be opened.

The Head of Research advised caution as there was still a need to consider the fishery for the following year. Whilst some areas this year may be likely to suffer from A-typical mortality he felt these sands held sufficient stocks to satisfy the TAC, this would make it possible to close other areas of 12/13/14mm cockle to preserve a stock for the following year.

With reference to the suggestion of increasing the Daily Quota Mr Garnett felt it would be more prudent to increase the number of days in a week when the fishery was open, he felt this would be a more gradual approach.

Mr Brewster felt there was a need for an industry meeting to consider the options, he questioned the need to increase either as the previous year 5,000t had been taken without increasing the daily quota or the number of days open for fishing. If however there was evidence the stock was likely to be lost that would be the time to adjust the management measures.

Mr Williamson advised that from the processors point of view a 4-day fishery was the best option. He noted that the suggested increase in daily quota was to go from 2t to 4t, however he felt 3t may be a satisfactory compromise. He also advised it was not just the industry who needed to be considered but whether or not the canneries would be prepared to start working to fit in with an early opening date. He also advised that if the fishery were to be opened early in May it should only be the beds at risk which were opened to avoid flooding the market which would reduce the price paid. The ACEO advised that he had received representation

from some parties whose argument was that they find it difficult to make it pay with a daily quota of 2 tonnes. The Wash based commercial fisher members indicated that the fishery was viable with a 2 tonne daily quota.

Mr Williamson noted that the proposal was for a handwork fishery, despite the unusually high proposed TAC, he questioned if this would be the case in any year even if the TAC was to be 10-15,000t. The ACEO believed it may be best to have it officially acknowledged that a dredge fishery will only be considered in very exceptional circumstances, this would mean everyone knew where they stood, he questioned whether members thought this was worth exploring and there was general agreement that it was.

Having fully discussed and considered the options, **Members Resolved to:**

Agree that estimated stocks on Daseleys are adjusted to account for any stocks that were harvested during the period between being surveyed and closure on 21st April 2016.

Proposed: Mr Worrall

Seconded: Mr Stipetic

All Agreed

Agree in principle that a continuation of contingency management measures may be appropriate in the Wash cockle fishery.

Proposed: Cllr Cox

Seconded: Cllr Fairman

All Agreed

Delegate decision making on the early opening of the 2016-17 fishery (or part of the fishery) to the ACEO in consultation with the Chair and Vice Chair of the Authority.

Proposed: Mr Davies

Seconded: Cllr Fairman

All Agreed

Agree that in the event of early opening the fishery would operate under the same management measures as the 2015-2016 fishery, subject to amendment of the closed areas.

Proposed: Cllr Cox

Seconded: Mr Stipetic

All Agreed

Agree that any stocks harvested following an early opening would be deducted from the TAC eventually allocated to the 2016-2017 TAC.

Proposed: Mr Worrall

Seconded: Mr Stipetic

All Agreed

EIFCA16/31 Item 12: Wash MPA Management (Shrimp Fishery)

Members were reminded of the Marine Protected Area management which had previously been considered by the Authority. This paper was included to update members of the conclusions of the Habitats Regulation Assessment for shrimp fishing in the Wash and North Norfolk Coast SAC,

and to propose mitigation to account for potential impacts on the features of the site.

The Habitats Regulation Assessment had been revisited taking into account new evidence, the new findings had yet to be put to Natural England, and members were reminded they were subject to NE approval.

A short presentation was made to explain the revised findings to members and to explain that it now appeared the shallow areas were less sensitive as it seemed the features were likely to recover quite quickly. The deeper water remained more sensitive and vulnerable to the adverse effect caused by the trawl shoes. Taking the new information in to account the proposal was to apply effort management to the fishery, effectively reducing the effort in areas not closed to fishing.

Five spatial closures were also being proposed to protect the features.

The next step would be to seek NE advice and if the response was favourable then Regulatory Notices for the closures and introduction of effort management measures would be drawn up. If a favourable response was not received Officers would have to reconsider the mitigating circumstances.

The Regulation and Compliance sub-committee would be responsible for ensuring management measures were in place by the end of 2016.

Members were also advised that Shrimp Gear Impact Trials were being developed which would include standard gear as well as more innovative gears. It was anticipated this would be a 2 year project involving both EIFCA and the Industry. The ACEO advised this project was beyond EIFCA resources and would require a successful funding bid from EMFF and industry support.

Mr Garnett questioned whether the proposal took into account the fact that there would be no fishing effort on the closed grounds. He also advised that to state only 14% of the area would be affected was misleading as it would be 14% of the whole SAC, but represented much greater than 14% of the shrimp grounds.

Mr Stipetic questioned whether purely shrimp gear was involved, as in the next year the cod recovery scheme could come to an end and vessels could use beam trawls with 80mm nets which could possibly cause more damage in closed areas.

Ms Thorpe advised that NE were working through the assessment. Whilst there was agreement with the conclusion of adverse effect in deeper water there was some concern about there being no adverse effect in shallow water areas, however reduction of effort may give more confidence.

Mr Bagley noted that there were still a lot of closed areas being proposed and questioned whether EIFCA were trying to protect something which didn't need protecting when it was already thriving. He was advised that EIFCA had a legal duty to protect these sub-features of a bigger feature. Mr Bagley requested a chart of the whole of the area which depicted what is actually closed throughout the district from all restrictions. The ACEO advised such a chart was available as part of the Eastern Area Marine Plans.

Members discussed in general a variety of projects which had resulted in areas closed to a fishing methods, they also questioned the reasoning behind repeatedly pumping sand into areas for sea defences when it is only moved away by the tide and ultimately effects the fishing grounds. Mr Garnett also questioned the proposal to restrict the number of shrimp permits as he felt local fishers need access to both cockle and shrimp fisheries.

The ACEO advised that the regulatory byelaw would allow reaction if necessary but in the first instance it was necessary to take a precautionary approach. He also reminded members that Defra required management measures to be in place by December. The project would take two years after which changes could be made to the closed areas.

Members Resolved to:

Note the updated assessment of shrimp trawling within The Wash and North Norfolk Coast SAC

Note the requirement to seek Natural England's advice on the assessment

Direct officers to utilise mitigation to develop management measures that meet the conservation objectives of the MPA.

Proposed: Mr Shaul

Seconded: Cllr Fairman

All Agreed

Agree that future shrimp management items are remitted back to the Regulation & Compliance Sub-Committee.

Proposed: Mr Spray

Seconded: Cllr Cox

All Agreed

EIFCA16/32 Item 13: Shrimp Byelaw 2016

Members were provided with information on the rationale used to reach the conclusion, there was a need to consider including shrimp fisheries in the permit scheme.

Members were provided with proposed management measures, these would include a permit byelaw being put in place with permit conditions to meet the requirements of the fishery to reduce the footprint over areas not closed.

To comply with the byelaw fishers would require a permit which would have a requirement to provide catch data, it was suggested such a permit would attract a charge of £44.

Members were advised the proposed byelaw would be an enabling byelaw which would allow a mechanism to be put in place to enforce permit conditions, allowing EIFCA to sustainably manage the fishery.

Cllr Byatt questioned where this byelaw would be applicable, the Staff Officer advised it would be applicable throughout the EIFCA district including recreational fishing. Mr Garnett enquired whether this would also include a 2ft push net on the beach, the Staff Officer acknowledged that yes anyone fishing for shrimp would require a permit. Mr Pinborough questioned whether there would be different categories for commercial and recreational fisheries, he didn't think it was appropriate to expect

recreational fishers getting a feed for their tea to pay £44 for a permit. The ACEO advised that maybe the permit would apply to vessels, however the Staff Officer felt the level of fishing needed to be considered and 20 people taking a small amount once a week could amount to a large amount. The ACEO felt there needed to be more consideration on this point, which Mr Stipetic agreed with as he felt it was wrong to apply a permit to a person, if a permit was applied to a vessel this would reduce the effort.

The ACEO advised that it was within the Authorities gift to permit recreational fishing but he felt this particular byelaw was aimed at commercial fishing.

Members Resolved to:

Note the rationale for introducing shrimp fisheries in the permit scheme.

Agree to make the Shrimp Byelaw 2016

Proposed: Mr Stipetic

Seconded: Mr Spray

There were three votes against this proposal but with all other votes in favour the motion was carried.

Direct officers to undertake a formal consultation for the Shrimp Byelaw 2016.

Proposed: Mr Spray

Seconded: Mr Stipetic

One vote against was noted, all other votes were in favour therefore the motion was carried.

Delegate authority to the ACEO to revisit the issue of fishing from vessels and recreational fishing prior to going to consultation.

Proposed: Cllr Cox

Seconded: Mr Shaul

All Agreed

EIFCA16/33 Item 14: Marine Protected Areas Byelaw 2016

Members were advised that following consultation no comments had been received. However, Defra were now indicating they were not happy with this style of byelaw, which could result in them not agreeing to the amended Schedule to the byelaw.

Members Resolved to:

Note the outputs of the formal consultation for the Marine Protected Areas Byelaw 2016.

Note the rationale for requiring flexibility with regards to the application of Regulatory Notices in MPAs.

Agree to submit the Marine Protected Areas Byelaw 2016 to the Marine Management Organisation for formal QA.

Proposed: Cllr Fairman

Seconded: Mr Pinborough

All Agreed

Direct Officer to pursue the removal of Schedule One from the Byelaw in accordance with independent legal advice.

Proposed: Mr Worrall

Seconded: Mr Spray

All Agreed

Delegate to the ACEO the ability to amend the byelaw to introduce a schedule to specify the designated sites in which Regulatory Notices should it prove necessary to do so.

Proposed: Cllr Cox

Seconded: Mr Pinborough

All Agreed

At this point the meeting was adjourned for a 15 minute break for lunch

EIFCA16/34 Item 15: Report on a meeting of the Planning & Communication Sub-Committee held on 24 February 2016

Members were advised that a decision had been taken to move from Annual Plans to a 5 year Business Plan with annual updates.

It was noted that, in relation to the effectiveness of outreach activity, a decision had been taken not to repeat the benchmarking exercise on the basis it would incur expenditure, £15k of public money which it was not believed would be judiciously spent.

Members were then taken through the main priorities for 2016/17, whilst it was accepted these were ambitious it was in context with the 5 year business plan and inevitably some may roll over to the next year.

Mr Davies questioned why EIFCA were looking into flatfish when they were already covered by the MMO. The ACEO advised this was a shared responsibility with EIFCA looking at the inshore fisheries, with the hope that the gaps in data will be filled by working together. Mr Stipetic advised that any data for u10m vessels will only be from buyers and sellers. Mr Davies was still uncertain where EIFCA was going with this and was concerned the IFCA was branching into areas outside their district. The ACEO assured members nothing was being done outside the EIFCA district.

Members Agreed to note the content of the report and the addition of Capital Expenditure projections to the Business Plan since it was improved.

EIFCA16/35 Item 16: Payments made and monies received during the period 1st January 2016 and 31st March 2016

Mr Shaul questioned what the Fixed Admin Penalty payments had been received for. It was advised that 19 FAPs had been issued for infringements of the closed area in the Wash. 14 of which had been received, with the other 5 being subject to a court case.

Members agreed to receive the report.

EIFCA16/36 Item 17: Quarterly Management Accounts

Members were advised this was an update of the Accounts, the final accounts for the financial year would be available at a later date. Early indications showed savings of £113k compared to the budget. This was largely due to savings in salaries as a result of the CEO being on secondment to the MMO.

The Head of Finance talked members through other variants in the accounts compared to the budget for the year.

Members Agreed to note the report.

EIFCA16/37 Item 18: MMO Appointee Expenses

The payment of expenses to MMO Appointees is subject to review on an annual basis, with the Authority being asked to consider whether or not the expenses should continue to be paid.

The Head of Finance advised that at the current time the expenses tended to fall below the budget amount and remains affordable.

Members Resolved to approve the payment of expenses to MMO Appointees for a further year.

Proposed: Cllr Cox

Seconded: Cllr Fairman

One abstention was received, all other votes were in favour, the motion was therefore carried.

EIFCA16/38 Item 19: Le Strange Private Fishery

Members were advised that the Le Strange Estate had previously been granted fishing rights to an area of the foreshore. In 2007 13 fishers took cockles from an area which they did not believe was part of the LSE. The LSE disagreed with this and took proceedings.

It was questioned whether sandbanks which were becoming attached to areas of the foreshore which the LSE have rights to should become part of their area of control. A Supreme Court had disagreed with this which suggested the fishers had been fishing legally.

With this ruling in place it meant there was potentially an area of the sea bed between the WFO and where LSE starts which was unregulated. However, until a boundary for the LSE was defined it was difficult to determine where this area was. Legal advice was being sort on the best course of action in the event of fishing activity taking place in this area.

Mr Garnett accepted there was risk to management of the area left between the WFO and LSE, however, he felt that prior to the judgement there had been a serious risk that LSE could take large chunks of the fishery for themselves.

Mr Williamson was disappointed in the ACEOs view on the outcome, he had hoped it would have been appreciated that the industry had gained back some of the grounds and finally the boundary was likely to be sorted, rather than implying the court ruling had created a problem for EIFCA.

The ACEO advised his comments had been intended to reflect that the case was outside the remit of Eastern IFCA and that whilst clearly interested in the outcome it was not a matter which the Authority could, or should have sought to influence whilst court proceedings were ongoing.

Mr Garnet felt it may be necessary for EIFCA to be involved in determining the boundary, however the ACEO questioned why there was a need to be involved if it was outside the boundary of the WFO. Mr Garnett advised the WFO boundary had been determined in areas not contended he felt it was now necessary to complete what was started in 1992.

Mr Bagley questioned whether any regulation applied to this gap of land, he was advised it was still part of the SSSI and those regulations remained in place.

EIFCA16/39 Item 20: Defra Marine Review

The ACEO updated members on Defras planned review on Marine Activity. A major review was being undertaken involving: MMO/ CEFAS / JNCC / NE / EA & IFCA's.

Phase 1 of the process was Evidence Gathering which 4 working groups were addressing. The timeframe for this phase was short with evidence required to inform a meeting of the exec committee in June. This would form Phase 2 during which the intention was to identify areas to make improvements.

The ACEO believed the outcome would involve more joint working and cohesive working for stakeholders.

EIFCA16/40 Item21: MMO/IFCA Collaboration

The ACEO updated members on two key workstreams.

Accommodation Sharing: EIFCA had acquired space in the MMO offices in Lowestoft, which supported the decision to base the patrol vessel in Suffolk.

Intelligence, Tasking & Co-ordinating: this process was intended to improve intelligence held by the MMO/IFCA's.

EIFCA16/41 Item 22: Quarterly progress against Annual Plan priorities

Most Items were complete in line with the plan, with the exception of bio security which had been rolled over to next year.

Members Agreed to note the report.

EIFCA16/42 Item 23: HR Update

Members Agreed to note the report.

EIFCA16/43 Item 24: Marine Protection Quarterly Reports

Members were advised that due to changing roles there may be some difference in reporting styles, as well as some changes in the reporting of data. The data collection process was not considered to be particularly robust.

Members Agreed to note the report.

EIFCA16/44 Item 25: Marine Environment/Research Quarterly Reports

Members Agreed to note the report

EIFCA16/45 Item 26: Any Other Business

Whelk Byelaw: Members were reminded that Emergency Whelk Byelaw had come into force 12 months previously. Officer were actively looking to replace this with a permanent byelaw, however this was still being considered by the MMO.

The Emergency Byelaw process allows EIFCA to apply for a 6 month extension, which officers had done, this was also being considered by the MMO.

Once the permanent byelaw was in place the emergency byelaw would be revoked.

There being no other business the meeting closed at 1410 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



24th Eastern IFCA meeting

1 June 2016

Action Item 6

The Wash Cockle Fishery 2016

Report by: J Gregory, A/CEO, R W Jessop, Senior Research Officer

Purpose of report:

The purpose of this report is to inform members of the outcome of the 2016 Wash cockle survey, to present recommendations for the opening of the 2016 cockle fishery and to determine the most appropriate management measures taking into account all relevant factors.

Context

The paper is intentionally detailed as it aims to expose the plethora of issues surrounding the management of a successful cockle fishery. On the face of it, this paper represents a routine procedure to open the annual cockle fishery but the decisions taken must be made with full awareness of the significant division of opinion within the Wash fishing community and the antagonistic behaviours that this subject routinely provokes.

Members would wish to note that some within the Wash fishing community perceive institutional bias at Authority level (members and officers) towards artisanal/part time fishermen over those with larger commercial operations. To assure objectivity Members are requested to re-acquaint themselves with the provisions of the Eastern IFCA constitution and MMO appointees should revisit the Terms and Conditions of Appointment provided by the MMO and in particular the following:

*'Appointees to IFCA's are legally required to represent all the local fishing and marine environmental interests in the waters of the IFCA district, in a balanced way, taking full account of all the economic, social and environmental needs of that district. Appointees should recognise that they are part of a committee and should not regard themselves as representing solely one particular interest within the IFCA district.'*¹

In developing this paper, a consultation has been conducted with Wash Fishery Order (WFO) Entitlement holders to draw upon their experience and reflect their opinions and comments.

Assumption

This report is written on the assumption that both the provisions of the Wash Fishery Order 1992 (including the licence conditions and Regulations) and Eastern IFCA byelaws will be adhered to and fishing activity will be carried out in a legal and professional manner by all participants.

¹ Eastern IFCA Constitution Chpt 3, Marine Management Organisation appointees: Terms and Conditions of Appointment Section 151(6)(c) Marine and Coastal Access Act 2009.

The Authority has been made aware of the poor behaviours seen during the 2015/16 cockle fishery (EIFCA15/82). This has been a concern for Natural England and it has been taken into account in developing the recommendations made for this years' fishery particularly in relation to the risk posed by non-compliance with regulations and management measures.

Recommendations

Recommendations have been formulated through risk analysis, dialogue with Industry representatives and with due regard to the statutory duties of Eastern IFCA.

Members are recommended to:

Note the content of the 2016 Wash cockle survey report at Appendix 1.

Note the responses to Entitlement holder consultation at Appendix 2

Note the risks associated with hand worked and dredge fishery harvest methods as presented at Appendix 3

Note that the results of the 2016 cockle survey indicate that there are significant abundance and density of adult and juvenile stock which introduces a risk of mass die-off in certain areas through 'ridging-out' and atypical mortality.

Note the rationale for recommending a hand-worked fishery only based on the higher risks associated with the dredge fishery and the preference of the majority of entitlement holders.

Note the rationale for increasing the daily catch restriction and the legal advice from Defra regarding a policy which introduces an increased threshold with regards to enforcement of daily catch restrictions under Regulation 2 (Appendix 5)

Agree to a Total Allowable Catch (TAC) of 8609 tonnes.

Agree to open a hand work fishery on a date to be determined by the A/Chief Executive Officer, noting that the fishery is already open under the 2015 management measures.

Agree to the proposed licence conditions set out in Appendix 4, including the proposed open areas on the Thief, Gat, Roger/Toft, Wrangle, Friskney and Daseley's sands.

Agree to endorse the enforcement policy at Appendix 5 relating to Regulation 2 (daily catch restriction) to effectively increase the daily quota to 3 tonnes.

Approve the delegation of powers to the A/Chief Executive Officer, in consultation with the Chair and Vice-Chair, to introduce, vary or revoke management measures/licence conditions for the cockle 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 A/Chief Executive Officer 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 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 in order 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.

Background

The Authority is the Grantee of the Wash Fishery Order 1992, which confers upon the Authority the right of a regulating fishery for the prescribed species with respect to the regulated fishery. The prescribed species include cockles, mussels and clams.

In exercising its right of a regulating cockle fishery the Authority must remain fully aware of its obligatory duties and responsibilities as set out in the Marine and Coastal Access Act 2009. The statutory duties of the Authority are as follows:

- 1) Manage the exploitation of sea fisheries resources in its district; in doing so it 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
 - d) Seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district
- 2) Seek to ensure that the Wash Fishery Order 1992 is managed by the Authority in a manner that supports the local fishing industry whilst not having a detrimental impact upon the conservation features within a protected site.

As the fishery is within a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Special Area of Conservation (SAC), the Authority must exercise care to ensure that damage and disturbance to the site are minimised so there is no adverse effect on the integrity of the site.

To manage its responsibilities set out under the Habitats Regulations 2010 as the 'Relevant Authority' the Authority has set out management policies as well as an agreed process to open a fishery ('The Cockle Charter'), including a Habitats Regulations Assessment (an "appropriate assessment"). It is against these criteria that the options presented below have been weighed and from which the recommendations of officers are derived.

Industry Perspective

Entitlement holders have been surveyed as to their opinions. This was complemented by a meeting with Entitlement holders on Friday 27 May 2016. Comments from the written responses have been factored in where appropriate. Discussions from the meeting will be reported verbally. Written consultation results are included at Appendix 2.

Cockle Survey

In order for Authority members to make decisions based on best available evidence, annual cockle surveys are conducted each spring. These surveys highlight the size of the cockle stock and their distribution over the beds. When filtered through the Authority's Shellfish Management Policies, the results from the surveys determine the size of the TAC and help to identify which beds can be opened to which types of fishery. The Senior Research Officer has reported, to the Authority, his findings on the cockle survey conducted between March 21st and Apr 26th 2016. A full report is attached at Appendix 1. From this survey, a summary of stocks was calculated (below)

	2016 Stock
Total Adult Stock (≥ 14 mm width)	25,826 tonnes
Total Juvenile Stock (< 14 mm width)	29,523 tonnes
Total Stock (all sizes)	55,349 tonnes

Having benefitted from the survival and growth of an exceptional spatfall in 2014, the above figures represent some of the highest stock levels recorded for the Wash. The total stock of 55,349 tonnes is second only to the estimated 60,000+ tonnes seen in 1967, while the adult stock of 25,826 tonnes is the highest since 2001.

The TAC for the cockle fishery has traditionally been calculated as 33.3% of the adult (≥ 14 mm width) cockle biomass. Based on an adult stock of 25,826 tonnes, the TAC for the 2016/2017 fishery is recommended to be **8,609 tonnes**.

Barring a light spatfall from 2015 of 800 tonnes and low densities of 2013 year-class and older cockles, the majority of the stock is from the 2014 year-class cohort. On the beds where growth rates tend to be faster (e.g. Wrangle, Friskney, Roger/Toft, Gat and Thief) a high proportion have reached 14mm width and have contributed towards the "adult" stock. Between them, these five beds support 18,858 tonnes (73%) of the adult stocks. On beds where growth rates tend to be slower, the majority of the cockles have not yet reached 14mm width. These are expected to grow sufficiently to contribute towards the 2017 and 2018 fisheries.

Unfortunately, the trends highlighted during past studies and observations of cockle mortality events indicate mortalities from both 'ridging-out' and atypical mortality are likely to be high this year. The high-density patches on the Thief, Gat and Roger/Toft sands are anticipated to be prone to ridging out, while the larger cockles in all five beds listed above are vulnerable to high losses from atypical mortality. In order to reduce the impact

of these expected losses, it is recommended that the 2016/2017 fishery is focused on these five beds. Following concerns raised by fishermen from King's Lynn, that the Thief Sand does not dry on the smaller tides, it is also proposed that a small area of Daseley's is opened providing an opportunity for these fishers to work the smaller tides.

Filtering the results of the survey through the shellfish management policies identifies that the requirements for a dredge fishery are met on some of the beds this year. The shellfish management policies only allow dredge fisheries on beds that are predominantly sandy and where at least 70% of the cockle biomass has reached a size of 14mm width. Of the areas proposed to be opened to the 2016/2017 fishery, the beds on the Wrangle, Friskney and Gat Sands fulfil these two criteria. The majority of the stocks on the Gat, however, are adjacent to the Gat mussel bed and would mostly fall within the 100m buffer zone that is required around mussel beds. Taking the policies into consideration, therefore, a dredge fishery could be opened this year within the Wrangle/Friskney open area.

Risk of large scale mortality

The high density of cockles present on certain beds has introduced a high risk of mass cockle die-off as a result of either 'ridging-out' or atypical mortality. Atypical mortality is thought to be caused by one or more species of *haplosporidian* parasites which infect cockles and has caused significant annual die-offs regularly since 2008. 'Ridging-out' occurs where cockles are present in the sediment at such high densities that additional growth causes them to be 'pushed' out of the sediment. Both of these can cause the loss of entire beds of cockles. The highest risk of mass die-off is during the warmer summer months.

The potential for a ridging out event was suspected in the 2015/16 fishery in the Roger/Toft/Trap area of The Wash. It is noteworthy that the contingency fishery, which operated last year was not universally supported by all of the industry. However, it ultimately had a beneficial effect because the process of thinning out the high density of cockles has resulted in the Roger/Toft/Trap sands contributing more (in weight) to the fishery than last year.

The success of thinning out the high density cockles on this bed is reflected in the proposed management of this year's fishery i.e. measures are proposed which will thin out beds and reduce the risk of die-off.

Management measures for the 2016/17 cockle fishery

The fishery is managed each year through a combination of Eastern IFCA Byelaws, Wash fishery Order 1992 (WFO) Regulations, and licence conditions (under Article 8(5) of the WFO). The licence conditions are decided on a yearly basis by the Authority to reflect the dynamic nature and changing needs of the fishery. Regulations are 'fixed' and are consistent year to year.

The proposed licence conditions for this year's fishery reflect the exceptional cockle growth and high risk of large scale die-off as indicated in the cockle survey 2016/17. In addition to the usual management measures set through licence conditions (i.e. open days, open date, method etc.) three additional licence conditions have been proposed. These reflect the needs of the fishery in the light of the poor behaviours exhibited by some during last year's fishery and the associated risk that the mitigation put forward to Natural England to enable a fishery is undermined.

In addition to the proposed licence conditions, it is proposed that Regulation 2 (daily catch restrictions) is also varied through the use of an enforcement policy to reduce the risk of die off.

The proposed licence conditions for the 2016/17 WFO cockle fishery are set out in Appendix 4 and are discussed in detail below along with the proposed variation to Regulation 2 of the WFO. It is also recommended that the Authority agrees to delegate to the CEO, in consultation with the Chair and Vice-Chair, the power to introduce, vary or revoke management measures/licence conditions for the purposes of fisheries management, including meeting the conservation objectives of the Wash and North Norfolk Coast EMS and supporting a sustainable and viable fishery. This will enable dynamic management of the fishery should it be required.

Members are asked to consider the risks involved in opening a fishery. The matrix at Appendix 3 captures the key risks that are judged likely to be introduced to the delivery of the statutory duties laid out in MaCAA 09 by the hand-work and dredge harvest methods and is provided to guide members in their decision making. The matrix is necessarily subjective in places but has been compiled drawing upon the experience and professional knowledge of Eastern IFCA staff, Natural England, commercial fishing members of the Authority and the wider commercial fishing community. Additional risks have been identified this year given the potential for die-off and given some poor behaviours seen in last year's fishery. These have been factored into the risk matrix in appendix 3 where relevant and form part of the rationale for the recommended fishery below.

Licence condition 1: Fishing Method

Whilst some areas of the Wash cockle fishery are eligible for a dredge fishery (cockle survey report 2016 – Appendix 1) officers recommend that, in line with the preference of the majority of entitlement holders (see Appendix 2), a hand-work only fishery is conducted this year.

The majority of the licence holders indicated that a hand-work fishery would be the preference giving the reason that the method has yielded a good fishery for a number of years. In contrast, some fishers indicated that a dredge fishery would enable more cockles to be taken more quickly, reducing the risk of die-off as a result of high densities of cockles.

Given the risk of die-off due to high densities of cockles, the high tempo of a dredge fishery could be of benefit in that more cockles could be taken more quickly albeit limited to only two beds. However, the risk associated with a dredge fishery is higher than that of hand-working as indicated in Appendix 3.

Given the levels of non-compliance seen in last year's fishery, the potential for non-compliance this year is increased. Whilst this obviously applies to both fisheries, the potential damage which can be caused to the fishery through non-compliant dredge fishing is greater than that of hand-working as more cockles can be illegally removed and more damage can be done to cockle stocks (primarily as a result of breakage of cockle during the dredging process).

In addition, a dredge fishery will require a much greater enforcement resource compared to a hand-work fishery, potentially putting the delivery of the Authority's other duties at risk.

Hand working is the practice of gathering cockles by rake and cockle net over the period of a tidal cycle where the vessel lays on the sand and the crew disembark to work the ground. Hand working is labour intensive and to ease the burden the practice of prop

washing is utilised which is using the wash from the vessel's propellers prior to settling on the sand in order to remove the top layer of sand and shell away from the area about to be harvested.

There is a risk of damage with a hand-worked fishery but the code of best practice associated with prop washing has the effect of reducing disturbance from this activity to acceptable levels. Previous studies have shown that this activity is not detrimental to the site (Pears *et al* 2011)², provided it is conducted in a responsible manner that does not cause excessive physical disturbance to the seabed. This will be monitored by Eastern IFCA officers.

The tempo and relatively fixed nature of hand worked fishing operations allows for more sustained and sustainable enforcement options to monitor behaviours, albeit over a longer period of time. In addition, there will not be a need to mobilise a large proportion of EIFCA staff to assist with enforcement activity associated with a dredge fishery, which will help mitigate against any risks introduced to the delivery of other IFCA core outputs.

The main risk associated with a hand worked fishery is that it will be unlikely to take the entire TAC within the usual fishing period. To enable a hand-worked fishery to take the entire TAC officers have proposed an increase in the daily catch limit by way of an enforcement policy relating to Regulation 2 (daily catch restrictions). This policy would effectively increase the daily catch limit. In addition to enabling more of the TAC to be taken, this would also reduce the risk of mass die-off by reducing the density of cockles. The proposed policy (including the potential risks associated with it) is discussed in greater detail below.

In combination with the proposed increase in daily catch limit, a hand-worked fishery will provide an opportunity for a fishery of greater duration presenting business opportunities across the breadth of the commercial cockle fishing sector. Whilst it will not play to the strengths of the business models of the larger fishing operators, it is judged not to introduce any hazard to the overall viability of any business model.

In socio-economic terms, this option will provide for greater and more sustained employment opportunities across the commercial sector and may assist in reducing the impact of displacement caused by lack of alternative fishing opportunities.

In accordance with agreed WFO management policies, a hand worked fishery is the only fishing method that can exploit the entire area of available cockle stock available in 2016. Some areas are capable of supporting a dredge fishery but this would not meet the MaCAA 09 duties and responsibilities of the Authority to the same extent as a hand-worked fishery.

Enforcement Policy relating to Regulation 2 (WFO) - Daily catch restrictions

Due to the high risk of die off in certain areas this year, it is proposed that the enforcement of Regulation 2 (daily catch restrictions) is also varied. Regulation 2 of the WFO sets the

² Pears S, Finbow LA & Worsfold TM (2011) *Assessment of potential impacts of experimental cockle fishing on the benthos at a sandbank in the Wash, July – November 2012*. Unicomarine Report ESFWASH10 to Natural England and Eastern Sea Fisheries Joint Committee, February 2011.

daily catch restriction at 2 tonnes, per vessel, per calendar day during a hand-worked fishery.

Officers recommend that the fishery would benefit from an increased daily catch restriction to 3 tonnes per day, with the potential for it to be increased to 4 tonnes in the event of a mass die-off event which is possible over the warmer summer months.

To achieve this the Regulation would need to be amended which would include formal consultation, the production of an impact assessment and approval by the Minister. In this circumstance, it is unlikely that the amended Regulation would be approved in time to have a beneficial effect on the fishery – particularly in relation to thinning out those beds at high risk of die-off.

As such, a policy has been proposed which sets out Eastern IFCA's enforcement policy with regards to Regulation 2 for this year's fishery. This can be found at Appendix 5, together with the supporting rationale. The policy sets out that enforcement action will not be taken unless a vessel is in contravention of the Regulation by a certain amount. For the purpose of this fishery, it is recommended that this level be set at 3 tonnes per licence holder, per calendar day.

The recommendation that the CEO, in consultation with the Chair and Vice-Chair, has the delegated authority to introduce, vary and revoke management measures/licence conditions makes it possible to vary this policy (to 4 tonnes) in the event that a die-off is imminent such that the cockles can be removed before they are lost to the fishery.

Industry feedback

The licence holder consultation indicated that the preference would be for the daily quota to remain at 2 tonnes per day with the main reason given being that it could lead to excess 'prop-washing'. Instead, many fishers have indicated a preference for additional open days (i.e. move from a four day per week fishery to a five day per week fishery).

Increasing the daily quota is considered the more effective option. Increasing the number of days open to the fishery is not favoured by the processors because it extends the days on which the factory has to be staffed. It would lead Eastern IFCA officers to expend additional resource in enforcing the fishery. When considered in the context of last year's poor behaviours, this has the potential to reduce Eastern IFCA's ability to meet other requirements as additional resource is allocated to this fishery. The potential for environmental impacts as a result of excessive 'prop-washing' is explored below.

Environmental impacts

The main risk associated with this policy is the potential to encourage poor 'prop-washing' practices. Where fishers usually 'prop-wash' enough cockle to take two tonnes, fishers would, under a greater daily catch restriction, potentially have to prop-wash more excessively to remove the desired amount of cockles.

However, the present increased risk of die-off is as a result of very high densities of cockles, which is reflected in the beds which are proposed to be open to the fishery (i.e. the proposed open areas are those at the greatest risk of a mortality event due to high densities). As such, where a prop-washing event would have last year yielded the required two tonnes of cockles, would this year yield a greater number of cockles (i.e. 3 or 4 tonnes depending on the densities of the bed in question).

Furthermore, if cockle density reduces to below a point where a prop-wash event would not yield enough cockles, it is likely that the bed will be at a lower risk of die-off and as

such, could either be closed or, the daily catch restriction could be reduced (subject to approval of the recommendation to delegate powers to the CEO in conjunction with the Chair and Vice-Chair).

As such, the environmental risk associated with this policy is considered low. Should the Authority consider it appropriate to adopt the policy, advice from Natural England will be sought regarding the potential for a significant impact on the Wash and North Norfolk Coast European Marine Site. Further analysis of the potential impacts of the policy are presented in Appendix 5.

Legal advice

Advice has been received from the legal department at Defra. Defra have indicated that there is a potential that using a policy (rather than a formal amendment to the Regulation) *may cause confusion and/or have reputational implications for EIFCA and by extension, Defra* but indicate that the decision is ultimately Eastern IFCA's to make (i.e. there is no legal reason why this policy could not be enforced).

The risk associated with the policy is considered low. The policy would be published alongside the agreed licence conditions in a letter to fishers and will include the rationale behind the policy and IFCOs will engage with the industry throughout the fishery to ensure that fishers understand the policy.

Licence Condition 2: Opening Date

As an extension to the 2015/16 fishery, a cockle fishery is already open in The Wash. This contingency fishery is a reflection of the high TAC and the potential for die-off. This fishery will close when the 2016/17 fishery proper starts and it is proposed that this should be as soon as the cockle charter will allow (i.e. allowing for 7-days' notice) pending formal conservation advice from Natural England.

Industry perspective

The majority of licence holders agreed that the open date of the fishery should be as soon as is possible in accordance with the cockle charter.

Licence condition 3: Open/closed areas

As per the survey results (Appendix 1) the following beds are proposed to be opened: Thief, Gat, Roger/Toft, Wrangle and Friskney (figures 4 to 7 in Appendix 1). These beds present the greatest risk of die-off due to high densities of cockles and as such, targeting these beds with fishing activity will likely reduce this risk. In addition, as a result of representation received from the fishing industry, part of the Daseley's sand is also proposed to be opened.

Previous fisheries have indicated that fishing effort is likely to occur on those beds which are most easily accessed from each port. This year, there is a need to ensure that the beds proposed in particular are fished to reduce the risk of die-off.

The industry consultation has indicated a preference by some that the entire Wash is opened such that fishers can decide where to fish. In addition, fishers from King's Lynn have indicated that they will lose fishing days if only the Thief is opened on the East side of The Wash.

The Thief is a relatively low bed and does not necessarily 'dry-out' sufficiently to allow for hand-working on smaller tides (i.e. those between 6 and 6.4 meters) or in certain weather

conditions (i.e. when wind holds water over the beds during low water). The next nearest bed available to fishers from King's Lynn is the Gat sand which similarly is quite low and may suffer from the same issues. In addition, fishers from King's Lynn have indicated that beds further out from King's Lynn (on the west side of The Wash) are not accessible in some weather conditions due to the small size of their vessels.

Other concerns raised relate to the Thief being fished too heavily (as it is the main open area for fishers from King's Lynn) which may result in a non-viable bed next year and high density patches of cockles being lost from other areas which are not currently open.

There is a risk of die-off from other areas of The Wash which are not proposed to be opened. It is estimated that a potential 5,000 tonnes of cockles may be lost from areas outside of open areas through 'ridging-out' or atypical mortality. It should be noted however that these reflect more dispersed patches of cockles throughout The Wash. The estimated potential loss through die-off in the areas proposed to be open is 20,000 tonnes – as such, effort is being targeted towards these higher risk areas.

Although there is clear reasoning for concentrating the fishery into areas considered most prone to die-offs, there is scope for opening an additional area on the east side of The Wash on the Daseley's Sand. Opening this additional area will reduce the number of days fishing that fishers from King's Lynn will otherwise potentially lose as a result of poor weather and small tides.

Should significant die-off be detected in areas which are not open, additional areas could be opened (subject to approval of the recommendation to delegate powers to the CEO in conjunction with the Chair and Vice-Chair).

Note: Some of the proposed open areas contain Several Fishery Order mussel lays. Although some of these lays have benefitted from a settlement of cockles, these lays are not part of the Regulated fishery but belong to the lay lease-holders. The lays will effectively be closed areas and charts identifying them will be provided to the fishermen prior to the fishery opening.

Licence condition 4: Days of Operation

Over the last four seasons, days of operation have been limited. In 2011 there were breaks around small tides, while in 2012, 2013, 2014 and 2015 a four day a week fishery was operated with some adjustment for tidal changes (still averaging four days a week). Comments from fishers on this limitation have been that it will:

- Allow the sands to recover
- Extend the duration of the fishery
- Allow Shrimp growth to occur, by reducing fishing effort on juvenile shrimps and subsequently increasing Shrimp landings later in the season
- Allow for periods of enforced rest for both fishing operators and EIFCA staff to mitigate against health and safety risk introduced through over-tiredness.
- Provide a schedule for processors and other industries
- Suit processing plants as four days fishing equates to five days working for staff

For a handwork fishery the Entitlement holder consultation indicated a preference for the following criteria:

- Minimum 6.0m tide height
- Open four days per week
- Open weekdays (Monday to Friday)
- Open Monday to Thursday where possible

However, the majority of fishers also indicated a preference to increase the number of days per week in the event that die-off was occurring. Many also indicated that increasing the number of days per week was of preference to increasing the daily quota.

A four day per week fishery as recommended would be unlikely to enable the fishery to take the entire TAC on the existing 2 tonnes daily catch restriction. An increase to 3 tonnes per day would mitigate against this, resulting in a fishery which would potentially last until November. Increasing the number of days per week would increase effort (although would not thin-out cockles to the same extent as increasing the daily quota) but would also lead to additional costs on the Authority in terms of Officer time.

Representation was also made that Sundays were avoided as open days to allow for factory staff working too many hours (and the associated costs to the factory). One benefit highlighted of a four day per week fishery is that processor factories can then operate a 'normal' working week and reduce staff costs.

A contingency management measure could be to increase the number of days fishing to account for any potential die-off, if sufficient risk is posed to the fishery.

Licence Condition 5: Catch Returns Data

In order to manage the TAC and monitor where cockles have been lost or harvested it is important that fishermen provide the details of their fishing activities to Eastern IFCA. Catch return books and pre-paid envelopes will be distributed to fishermen on payment of their licence fee. Catch returns are required weekly and entitlement holders who fail to return catch forms by the allotted day could have enforcement action taken against them.

It is particularly important that the catch data from both the licenced fishers and the processors is received by officers in good time this year. With the proposed increase in daily catch restriction, the assumed amount of cockle taken if no return is received for a particular day will be greater than in previous years and could result in the early closure of the fishery.

Licence condition 6: Transshipping Prohibition

Transshipping is already prohibited in the dredge fishery (and in many other fisheries). Bringing the hand-worked fishery in line with other fisheries reduces the risk of fishers attempting to unlawfully take more cockles than is permitted under Regulation 2 (daily catch restriction) or any associated policy.

Several fishers were reported to have fished for or taken more than that which is permitted through Regulation 2 and transshipped the excess to other vessels during last year's fishery. Indeed, it featured as part of the defence case in the closed areas case where it was claimed that it was common practice.

It can be argued that, in effect, allowing transshipping undermines Regulation 2 of the WFO 1992, which prohibits 'fishing for, taking or removing from the fishery' catch in excess of the daily quota. The important point here is that case law indicates that removing from the fishery is complete at the point that cockles are placed in bags (NB there is an erroneous belief amongst many fishers that removing from the fishery means removing from the regulated fishery i.e. crossing the boundary of the WFO 1992 as they enter the river).

IFCOs would endeavour to enforce such a licence condition with a degree of proportionality e.g. if a vessel were to suffer a break down during a trip, IFCOs would practise appropriate discretion when considering enforcement action.

It is unlikely that any impacts on fishing activity will occur as a result of this prohibition. Given the high density of cockles present this year, fishers are less likely to need to 'top-up' their catch from other fishers who have an excess.

Licence condition 7: Requirement to Land

The intention of this condition is to require fishers to land cockles fished and to prohibit cockles being left in bags on the sands or in the rivers.

Numerous reports were received by officers last year of some fishers collecting more than the allowed two tonnes of cockles in a calendar day and hiding these additional cockles in the river. Fishers were then reported to be collecting these hidden cockles after IFCOs had left the quay, landing cockles in addition to the daily catch restriction out of sight.

As a result of this, a significant amount of resource was used to monitor quay sides until the tide had receded to a point where the retrieval of bags was not possible due to lack of water. IFCOs were then subsequently sent to quaysides prior to the following high tide to ensure that hidden cockles were not landed by vessels prior to leaving the fleet for that day's fishing.

The introduction of this licence condition will enable officers to better enforce this element of the daily catch restriction.

This licence condition is not considered to have any impacts on fishing activity. The requirement to land reflects the normal practice of fishers.

Licence condition 8: Dual Fishing Prohibition

The intention of this licence condition is to prevent fishers claiming that any landed cockles in excess of those permitted by Regulation 2 (daily catch restrictions) were taken from outside the regulated fishery.

The judgment of the Supreme Court in relation to *Lynn Shellfish Ltd (and others) vs Loose and another (2016)* has resulted in a 'no-mans-land' between the boundary of the Wash Fishery Order and the Le Strange Estate's private fishery, which is unregulated. Whilst options are being explored to address this, in the absence of a solution if fishers were so inclined, they could claim that any cockles landed in addition to those permitted by Regulation 2 were from the 'no-mans-land' which would be difficult to disprove.

This licence condition will enable more effective enforcement of the daily catch restrictions and mitigate the risk of excessive removal of cockles from The Wash. It will also prevent any claim to have harvested cockles from a lay on the same day as exploiting the regulated fishery.

No impacts on fishing activity are anticipated as a result of this licence condition. Given the high cockle TAC proposed for the 2016/17 fishery, fishers are unlikely to have a desire to fish in two cockle fisheries per day.

Licence condition 9: Standard Bags

At the 14th Eastern IFCA meeting (4 June 2014) the Authority approved the introduction of a standard bag which must be used in the WFO cockle fishery. It is proposed that this requirement, which was also implemented in the 2015/16 fishery, is again implemented for this year's fishery.

It will ease the enforcement burden for IFCOs monitoring landings to enable a straightforward visual assessment of the landed catch to determine if further investigation (i.e. using scales to weigh the catch) is required.

Licence condition 10: Automatic Identification System (AIS)

The intention of this licence condition is to require all vessels named on a licence to have fitted a Class B AIS transponder which must be functioning when the vessel is active in the cockle fishery. This will enable Officers to determine the location of vessels throughout the fishery.

In the light of last year's large scale non-compliance incident in which twenty vessels illegally fished within a closed area, Natural England have raised concerns regarding the protection of areas which are sensitive to fishing activity. In addition, during the case heard at King's Lynn Magistrate Court regarding the prosecution of five vessels involved in the incident, the Court indicated that the use of AIS would have had a significant effect on the case. Requiring this system to be used will add another deterrent to fishing in closed areas, encourage compliance in areas closed for the protection of juvenile cockles and potentially reduce the cost on the public purse associated with a prosecution.

AIS was introduced to increase safety at sea as the technology allows vessels to identify each other which helps prevent collisions. Given the large number of vessels involved in each year's fishery (the maximum number of vessels operating in any one day was 42 in last year's fishery) there are obvious benefits in relation to safety at sea in requiring this system to be used.

There will be an economic impact on the industry in relation to the cost of the Class B transponder and its installation. Class B units cost in the region of £400 to £850 with various makes and models available. In the context of an exceptionally large TAC for this year's fishery, the cost is small and reasonable in relation to potential gains of the fishery which, based on last year's first sale price, is likely to be worth in excess of £3.4 million to the fishers.

Summary

The proposed management of this year's fishery is likely to require a degree of innovation due to the very high proposed TAC and high risk of die-off. Officers have recommended an approach which is intended to enable what should be a very productive fishery, reduce the risk of die-off, further the conservation objectives of the EMS and reduce the risk of non-compliance.

As always, there is a degree of risk in enabling this fishery and as a result of recent poor behaviours by some, this risk is higher than it may have been in previous years. The proposed management measures (including the new licence conditions) represent a proportionate response to this increased risk which should still enable a productive fishery.

In relation to the recommendation for the method of fishing this year, the risk associated with a dredge fishery are higher than that of a hand-work fishery which is compounded by a high risk of infraction based on last year's poor behaviours.

Appendices

1. Summary of the 2015 Annual Spring Cockle Survey.
2. Wash fishing industry consultation responses
3. Risk matrix
4. Proposed licence conditions for the 2016/17 cockle fishery
5. Proposed policy relating to the enforcement of Regulation 2; daily catch restrictions

APPENDIX 1

SUMMARY OF THE 2016 ANNUAL SPRING COCKLE SURVEYS

The Authority conducted the 2016 spring cockle surveys between March 21st and April 26th. The timing of these surveys, which took advantage of the spring tides in late March and through April, is consistent with the majority of Eastern-IFCA's and ESFJC's previous spring cockle surveys. During the course of these surveys, 1,297 stations from a total of 21 sands were sampled.

The results of the surveys have been summarised in table 1, which shows details of the cockle stocks found on each sand, and in figures 1 to 3 which display the distribution of adult stocks (cockles $\geq 14\text{mm}$ width), juvenile stocks (cockles $< 14\text{mm}$ width) and the 2015 year-class spatfall.

The surveys found that as a result of the survival and growth of the exceptional spatfall seen in 2014, the stocks of cockles in the Wash are currently very high. From table 1 they can be seen to be at the following level:

Total Adult Stock ($\geq 14\text{mm}$ width)	25,826 tonnes
Total Juvenile Stock ($< 14\text{mm}$ width)	29,523 tonnes
Total Stock (all sizes)	55,349 tonnes

These represent some of the highest stock levels on record for the Wash, the total stock of 55,349 tonnes being second only to the estimated 60,000+ tonnes seen in 1967, and the adult stock of 25,826 tonnes the highest since 2001. There was only a light spatfall during 2015, so barring 800 tonnes of spat and light densities of 2013 year-class and older cockles, the majority of the stock is composed of individuals from the 2014 year-class cohort. These are of an age whereby on the faster growing beds like Wrangle, Friskney, Roger, Gat and Thief a high proportion have reached 14mm width and contribute towards the TAC. Between them, these five beds support 18,858 tonnes (73%) of the adult stocks. On the slower growing beds, the majority of the cockles have not yet reached 14mm width, but are expected to contribute to the 2017 fishery.

The stocks found on the Roger/Toft sand were particularly pleasing. At the time of the 2015 survey this sand had been estimated to support 4,773 tonnes of mainly small cockles. Exceptional growth of these stocks had enabled a large fishery to occur on this bed, during which approximately 4,000 tonnes were harvested. Growth was found to have more than compensated for these losses, though, resulting in a stock of 10,946 tonnes this year.

Although current stock levels are high, and with a **TAC of 8,609 tonnes** the prospects for the 2016 fishery appear very good, some problems are predicted. On the Thief sand, where stocks exceed an average of 33 tonnes per hectare, widespread "ridging out" is likely to occur if the cockles grow much more. Elsewhere, on sands where the cockles have grown faster, atypical mortality is anticipated to kill a high proportion of the stocks. This is likely to cause significant mortalities on the Wrangle, Friskney, Roger, Gat and Thief sands. As these sands are predicted to be particularly vulnerable to losses over the summer, officers will be proposing measures that aim to minimise these losses. These proposed measures will include focusing the fishery on sands where the cockles are considered to be most vulnerable and opening the fishery earlier than usual. The legalities of temporarily increasing the daily quota for the hand-worked fishery is also being investigated with DEFRA.

SAND	Adult ($\geq 14\text{mm}$)			Juvenile ($< 14\text{mm}$)				Total Biomass (t)	% Adult	
	Area (ha)	Mean Density (no/m ²)	Mean Weight (t/ha)	Biomass (t)	Area (ha)	Mean Density (no/m ²)	Mean Weight (t/ha)			Biomass (t)
Butterwick	190	55.00	2.19	417	239	391.67	4.85	1156	1573.00	27
Wrangle	884	133.12	6.35	5616	256	44.48	1.00	257	5873.00	96
Friskney	637	101.17	6.68	4254	11	10.00	0.29	3	4257.00	100
Butterwick Ext	193	30.00	1.15	222	322	314.74	3.95	1268	1490.00	15
Wrangle Ext	237	13.00	0.59	140	144	31.67	0.48	68	208.00	67
Friskney Ext	487	31.32	1.84	895	11	10.00	0.32	4	899.00	100
Boston Main Total	2628			11544	981.6			2756	14300	81
Roger/Toft	519	136.74	6.67	3464	383	1062.00	19.53	7482	10946	32
Gat	75	345.00	15.75	1178	18	130.00	3.62	63	1241	95
Herring Hill	232	40.00	1.35	313	339	287.50	2.75	934	1247	25
Black Buoy	141	49.33	2.00	282	140	493.33	6.76	948	1230	23
Mare Tail	387	95.25	3.88	1502	338	602.94	7.85	2650	4152	36
Holbeach	608	49.84	1.95	1186	860	315.11	4.91	4220	5406	22
IWMK	182	40.77	1.60	292	320	550.42	6.37	2037	2329	13
Breast	802	49.30	1.91	1535	952	317.36	3.17	3016	4551	34
Thief	210	392.11	15.80	3311	185	686.47	17.60	3247	6558	50
Whiting Shoal	11	20.00	1.21	13	0	0.00	0.00	0	13	100
Daseley's	539	48.20	2.02	1089	545	220.00	3.90	2126	3215	34
Styleman's	35	20.00	1.05	36	0	0.00	0.00	0	36	100
Pandora	75	14.00	0.57	43	82	15.00	0.12	10	53	81
Blackguard	0	0.00	0.00	0	0	0.00	0.00	0	0	
Peter Black	55	14.00	0.71	38	101	88.18	0.34	34	72	53
TOTAL	6498			25826	5242			29523	55349	47

Table 1 - Summary of cockle stocks on the Wash intertidal beds - April 2016

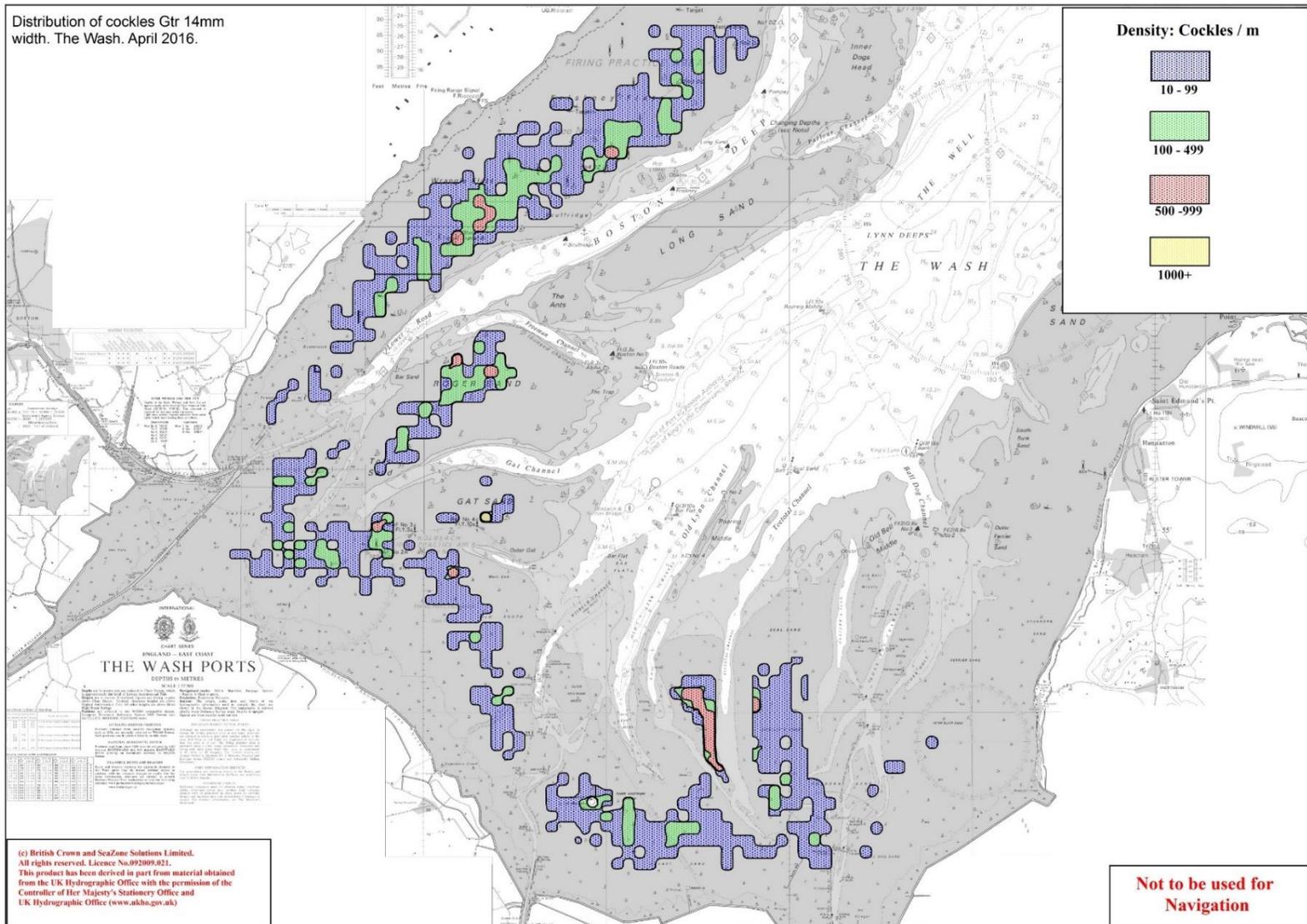


Figure 1 – Chart showing the distribution of adult cockles (≥ 14 mm width) at the time of the April 2016 surveys

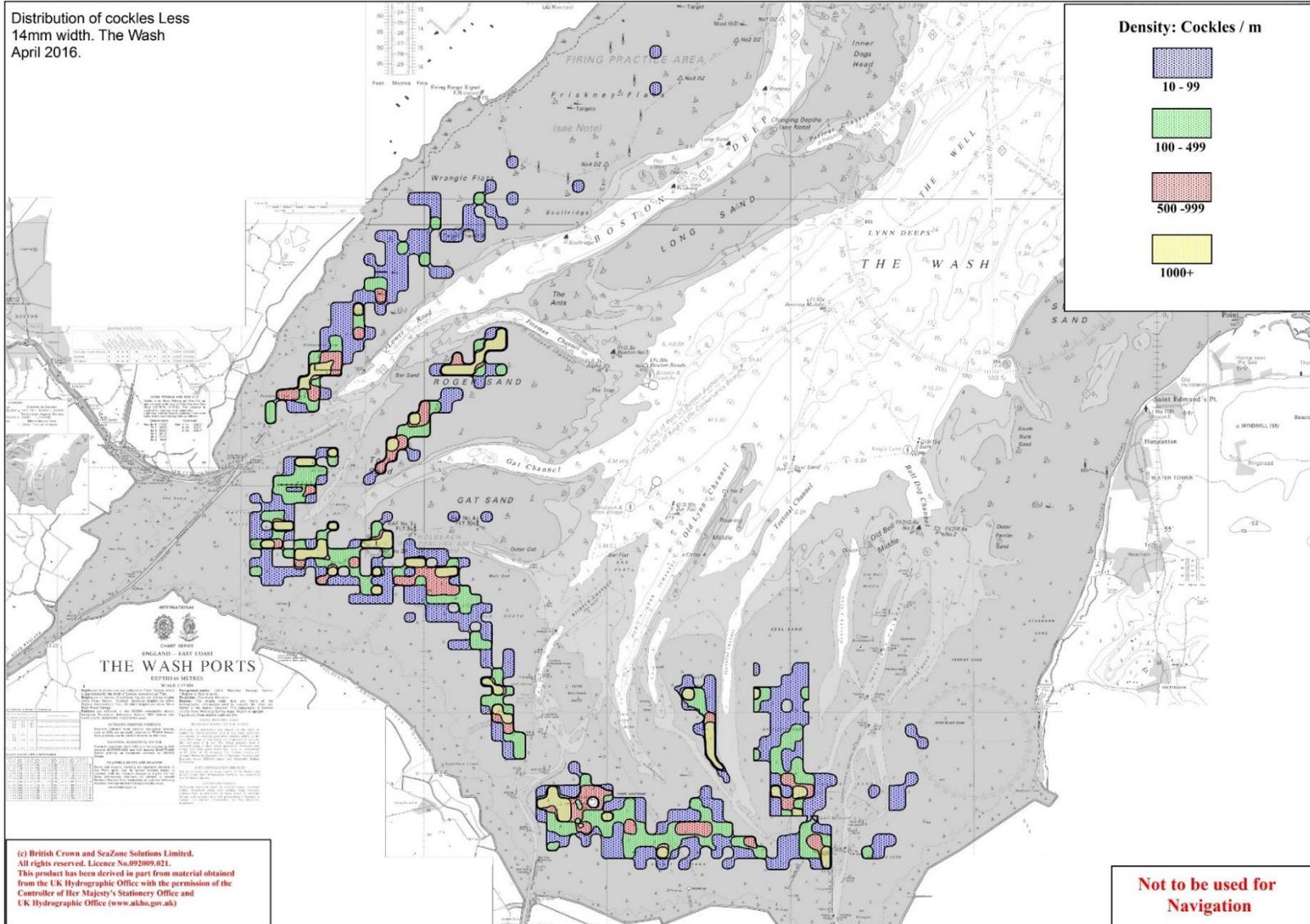


Figure 2 – Chart showing the distribution of juvenile cockles (<14mm width) at the time of the April 2016 surveys

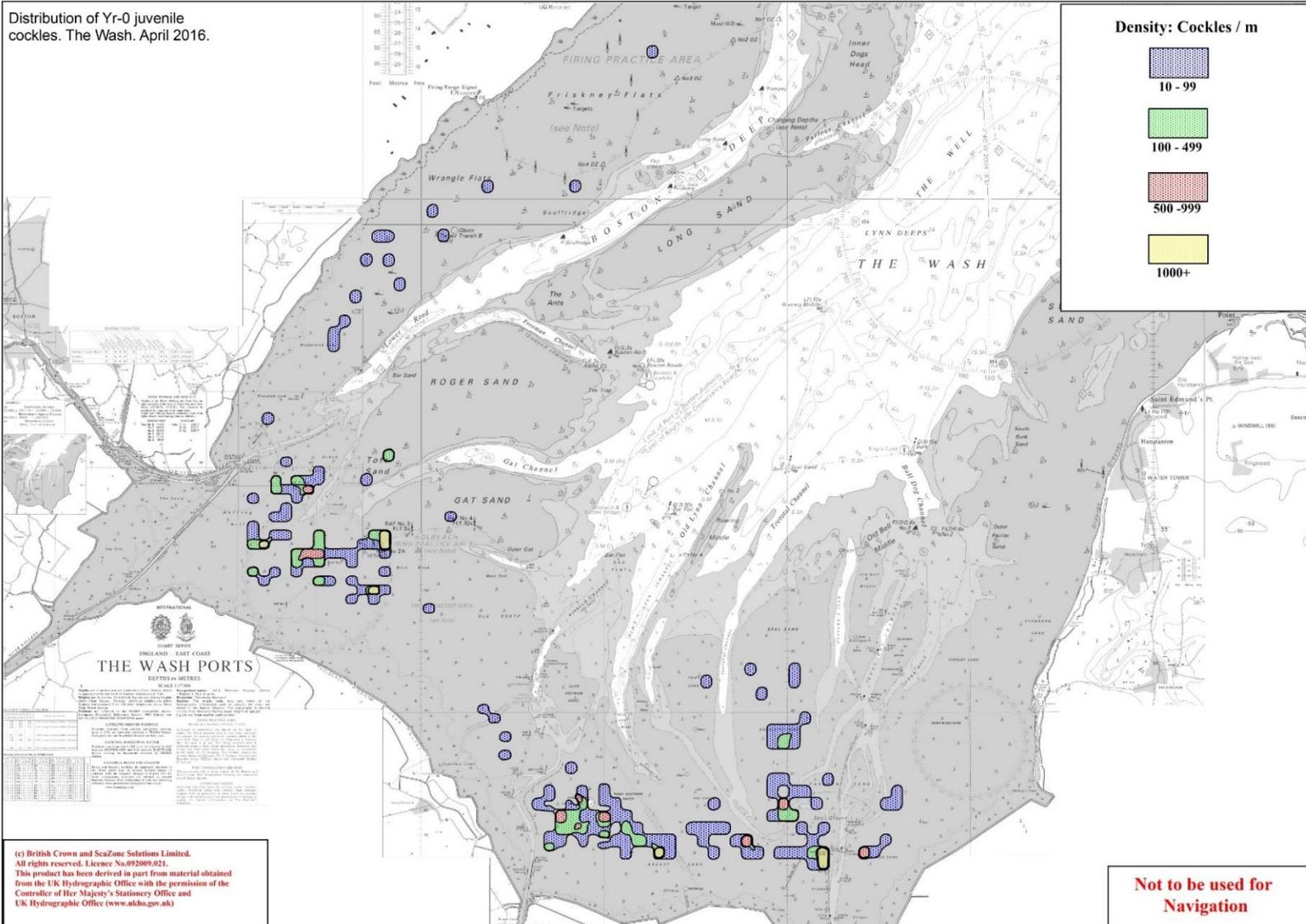


Figure 3 – Chart showing the distribution of 2015 year-class juvenile cockles at the time of the April 2016 surveys

DETERMINING MANAGEMENT MEASURES FOR THE 2016/2017 COCKLE FISHERY

The Authority encourages a co-management approach with regard to the Wash shellfisheries. As such the Authority will be consulting with all Wash Fishery Order 1992 Entitlement Holders regarding the management of the 2016/2017 cockle fishery. All Entitlement Holders will be provided with a consultation form with which to provide their opinions on various management measures.

In addition to considering the views of the Entitlement Holders, when determining management measures for the cockle fisheries in the Wash, the Authority must comply with local byelaws and the Wash Fishery Order regulations. Further, as the Wash is designated a Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI), management measures applied to the shellfisheries must not have a detrimental impact to the Conservation Objectives for the site. To this end, when determining management measures for these fisheries, the Authority follows a number of management policies that were agreed in 2007 with Natural England and industry representatives. These policies have helped guide the following proposals for the 2016/2017 cockle fishery.

Total Allowable Catch (TAC)

The TAC for the cockle fishery has traditionally been 33.3% of the adult ($\geq 14\text{mm}$ width) cockle biomass. The adult biomass identified during the surveys was 25,826 tonnes. **Based on this figure, the TAC for the 2016/2017 fishery should be 8,609 tonnes.**

Beds proposed to be opened

Hand-worked fishery

Although the management policies would allow areas throughout the Wash to be opened to the hand-worked fishery, officers propose focusing the 2016/2017 fishery on sands that are considered most vulnerable to losses over the summer. This will not only help to minimise the anticipated losses this year but should also help to maximise next year's fishery too. Figures 4 to 7 show the areas of Wrangle, Friskney, Roger/Toft, Gat and Thief proposed to be opened. As these areas support 18,858 tonnes of cockles $\geq 14\text{mm}$ width and a further 11,124 tonnes of cockles $< 14\text{mm}$ width, there should be adequate stocks to achieve the TAC from these areas. Following concerns raised by some fishermen from King's Lynn, that the Thief Sand does not dry on the smaller tides, figure 7 also shows part of the Daseley's Sand that officers propose opening in order to provide fishers an opportunity to fish on the smaller tides.

In order to protect sustainability of the stocks, it is the Authority's policy to protect areas in which Year-0 spat is present in densities of 1,000 cockles/m². Because this year all such areas fall outside of the proposed opened areas, there are no areas within the proposed open areas that will need to be protected from the fishery.

Potential dredge fishery

The shellfish management policies only allow dredge fisheries to occur on beds that are primarily sandy and where at least 70% of the cockle biomass has reached a size of 14mm width. Of the areas proposed to be opened to the 2016/2017 fishery, the beds on the Wrangle, Friskney and Gat sands fulfil these two criteria. The majority of the stocks on the Gat, however, are adjacent to the Gat mussel bed and would mostly fall within the 100m buffer zone that is required around mussel beds. Taking the policies into consideration, therefore, should the Authority determine it appropriate, a dredge fishery could potentially be conducted within the Wrangle/Friskney open area.

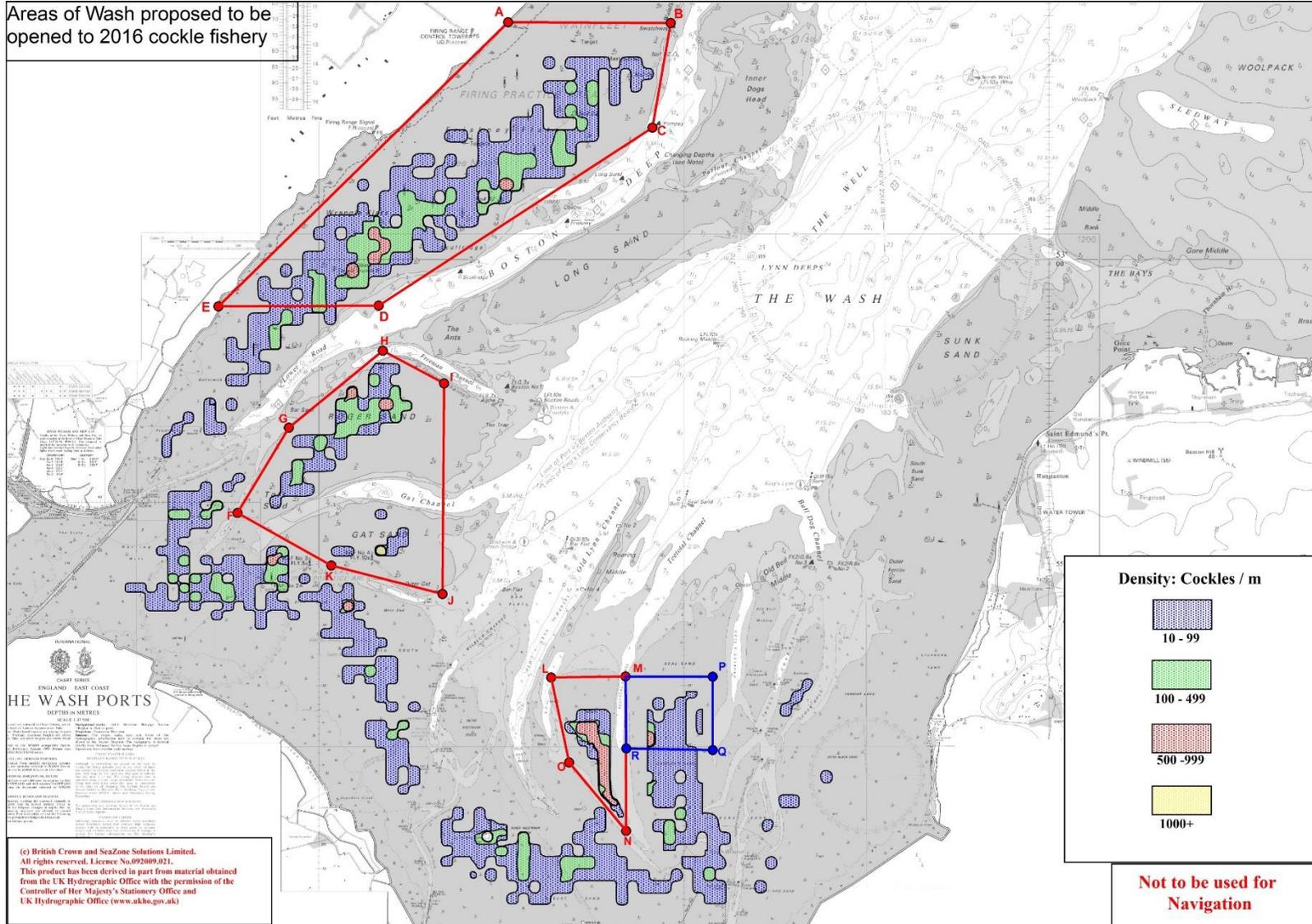


Figure 4 – Chart showing an overview of the areas proposed to be opened to the 2016/2017 hand-worked cockle fishery

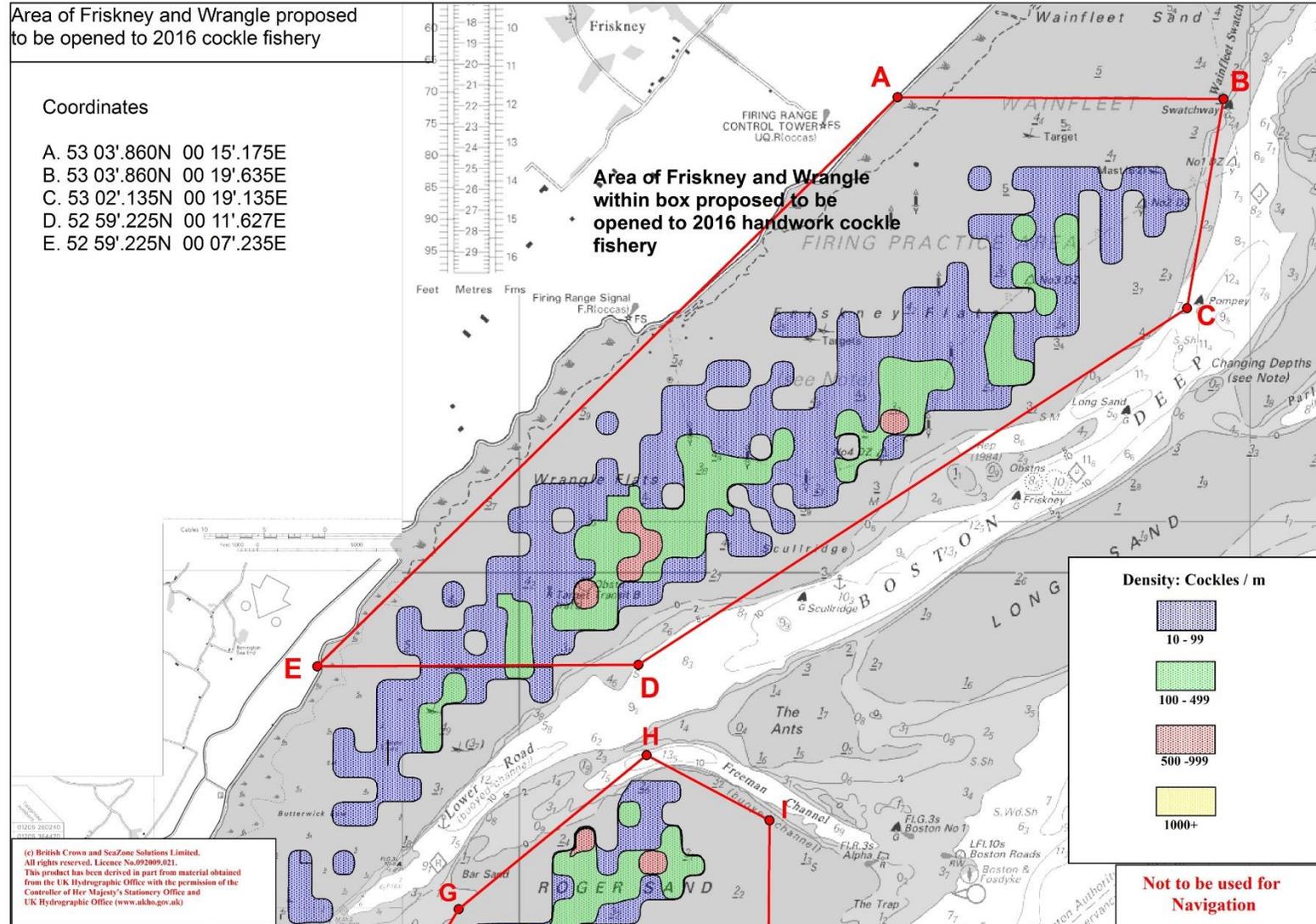


Figure 5 – Chart showing the area of Wrangle and Friskney proposed to be opened to the 2016/2017 hand-worked cockle fishery

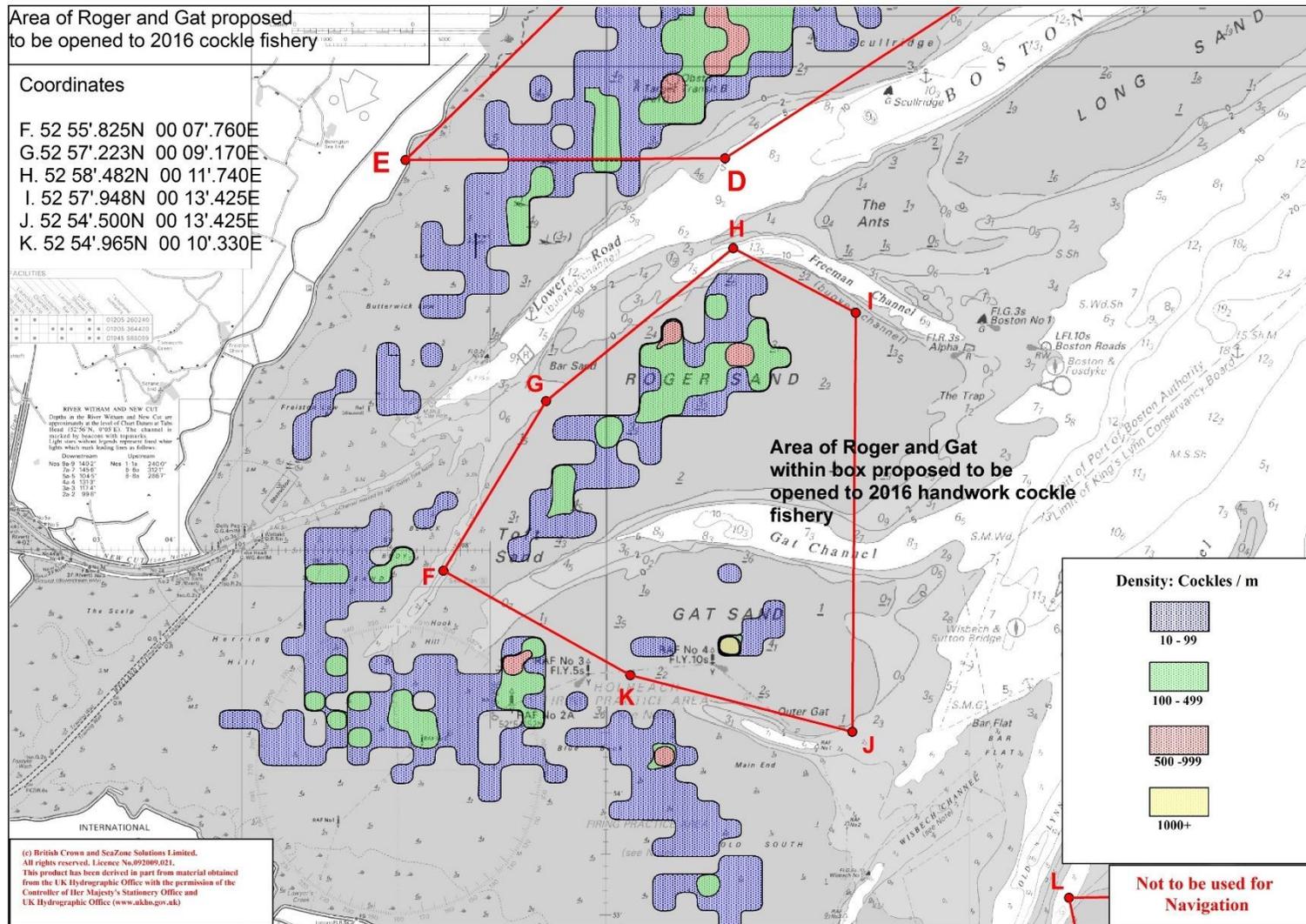


Figure 6 – Chart showing the area of Roger/Toft and the Gat proposed to be opened to the 2016/2017 hand-worked cockle fishery

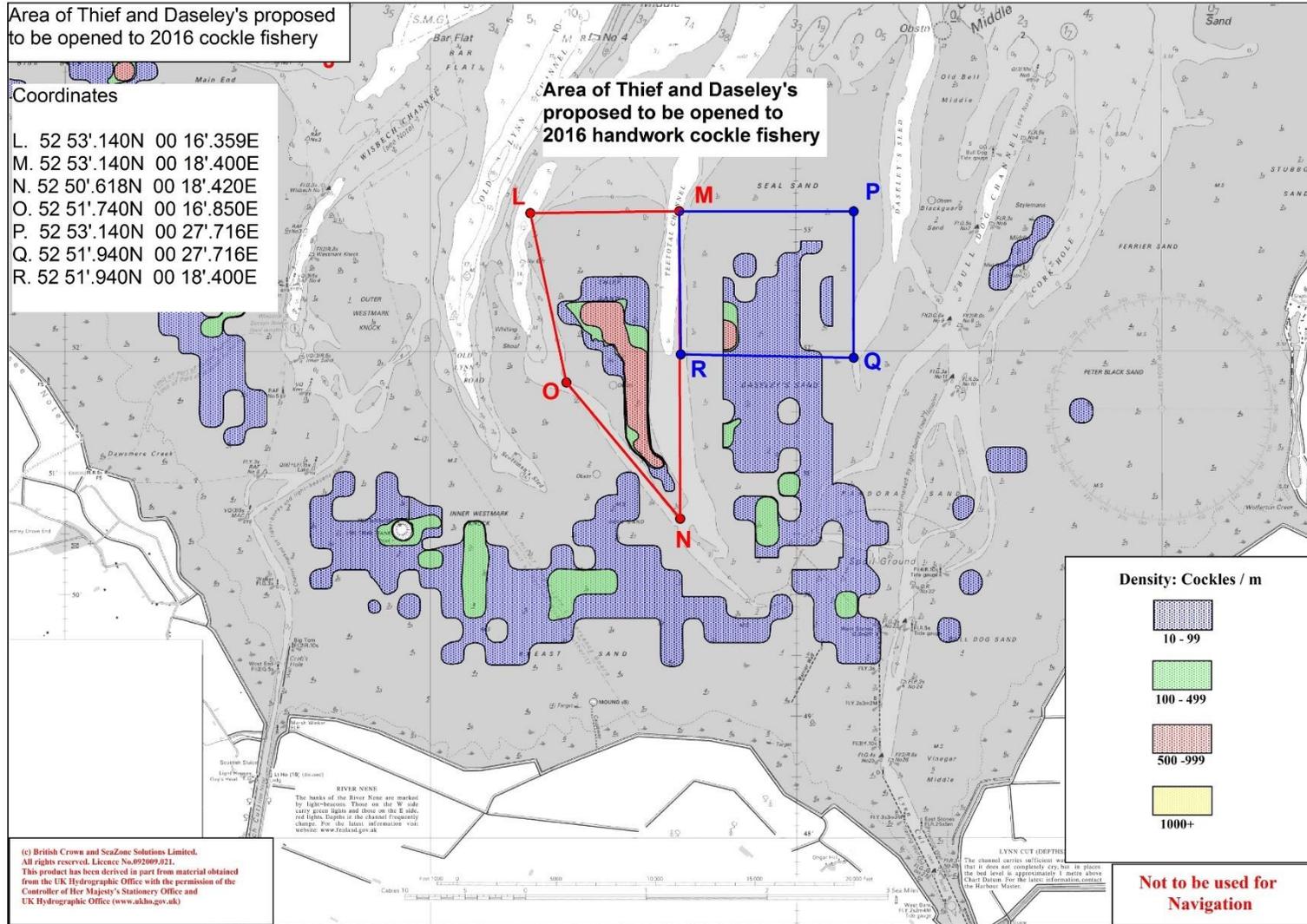


Figure 7 – Chart showing the area of the Thief and Daseley’s sands proposed to be opened to the 2016/2017 hand-worked cockle fishery

APPENDIX 2

Action Item 6

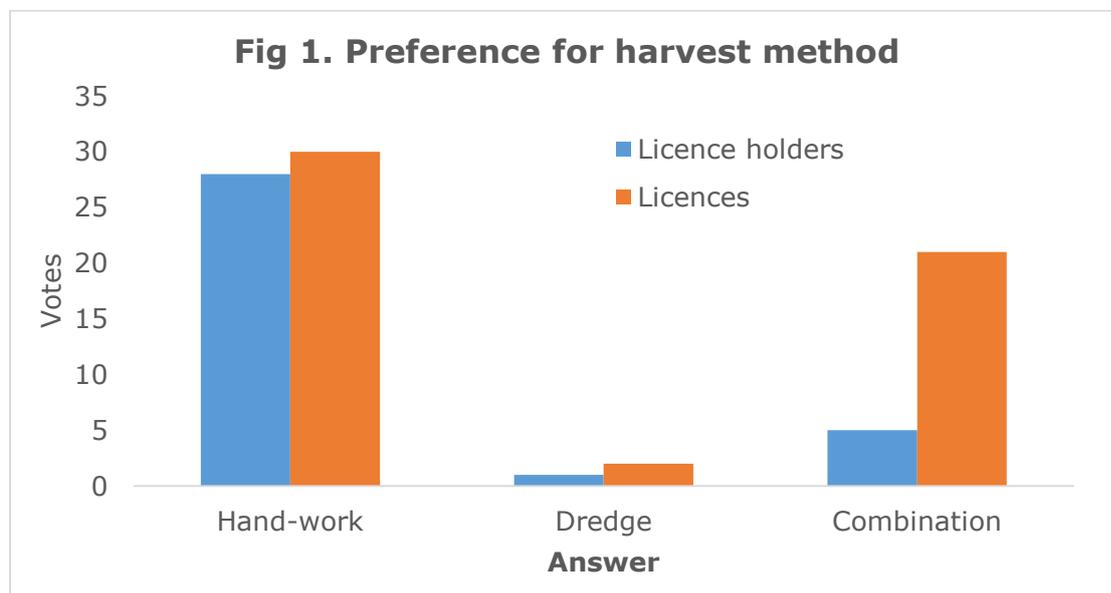
24th Eastern Inshore Fisheries and Conservation Authority Meeting

1 June 2016

Wash Fishing Industry Consultation Responses

The fishing industry is consulted each year with regards proposed management measures for the WFO cockle fishery. A total of 34 different licence holders (holding 53 licences between them) responded to the consultation. The outputs of this consultation are presented below, setting out preferences for each question asked.

Harvest Method



The vast majority of licence holders indicated a preference for a hand-worked fishery (Fig 1). Fishers commented that a hand-worked fishery is proven as a sustainable method and has sustained stocks over the last decade. In addition, some representation was made that it extends the period of the fishery, reducing effort on other stocks (most notably shrimp).

Comments in favour of a dredge fishery indicated that, as some beds have qualified this year (as per the Cocker Stock Survey 2016), it would be of benefit to the fishery to allow it as more cockles could be taken more quickly to reduce the risk of die-off due to high densities of cockles.

Preference for start date

The majority of fishers indicated a preference for the fishery to open as early as possible. Many licence holders also commented that the processor factories were not buying cockles until the 6th June 2016 and as such. Some comments were received that suggested this would be appropriate given the potential for die-off.

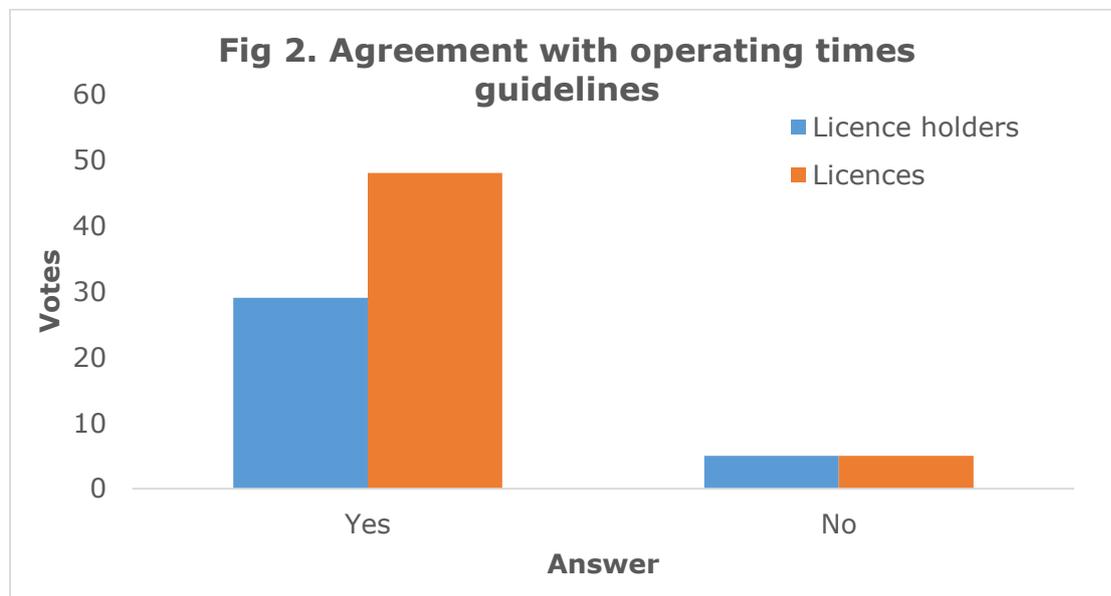
There was also a comment to the effect that an early opening would potentially reduce the price for cockles.

Opening times guidelines

Licence holders were asked to indicate a preference for or against the following opening times criteria (which were the criteria used for the 2015/16 fishery):

- Minimum 6.0m tide height
- Open four days per week
- Open weekdays (Monday to Friday)
- Open Monday to Thursday where possible

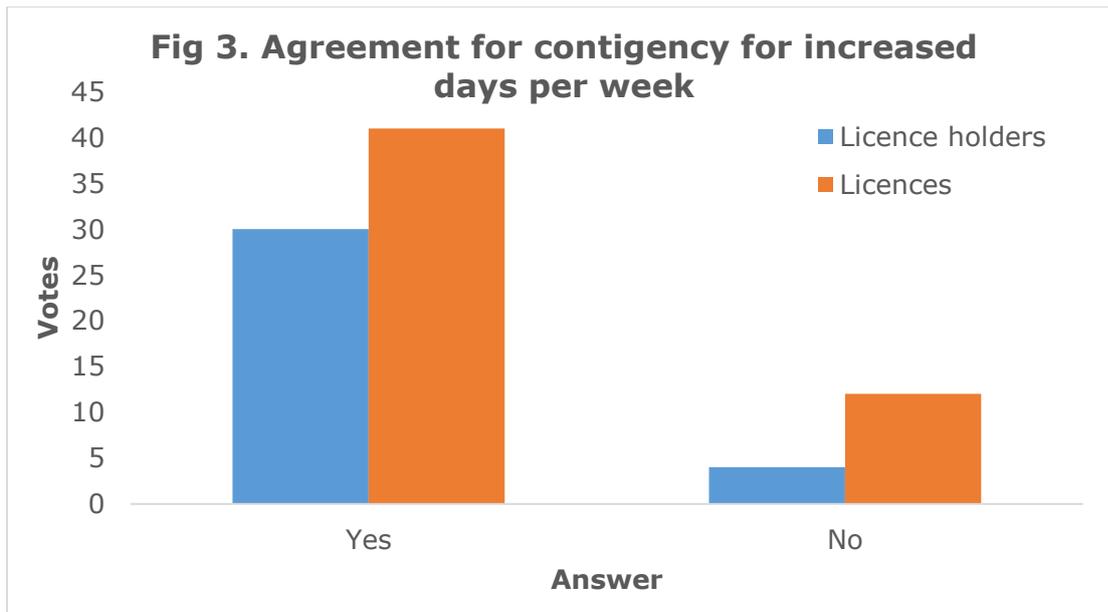
The majority of licence holders agreed with these criteria being used to set open and closed periods for the fishery (Fig 2).



Many also commented that there was a preference to increase the number of days-per-week criteria to five or more to allow for more of the TAC to be taken and to increase effort such that cockle densities are reduced to reduce the risk of die-off. Some licence holders also indicated that the fishery should be open on all available tides, only closing the fishery for tides of less than 6.0 meters.

Potential to increase number of open days in the event of a die-off

The majority of licence holders were in favour of increasing the number of open days as a contingency for cockle die-off (Fig 3).

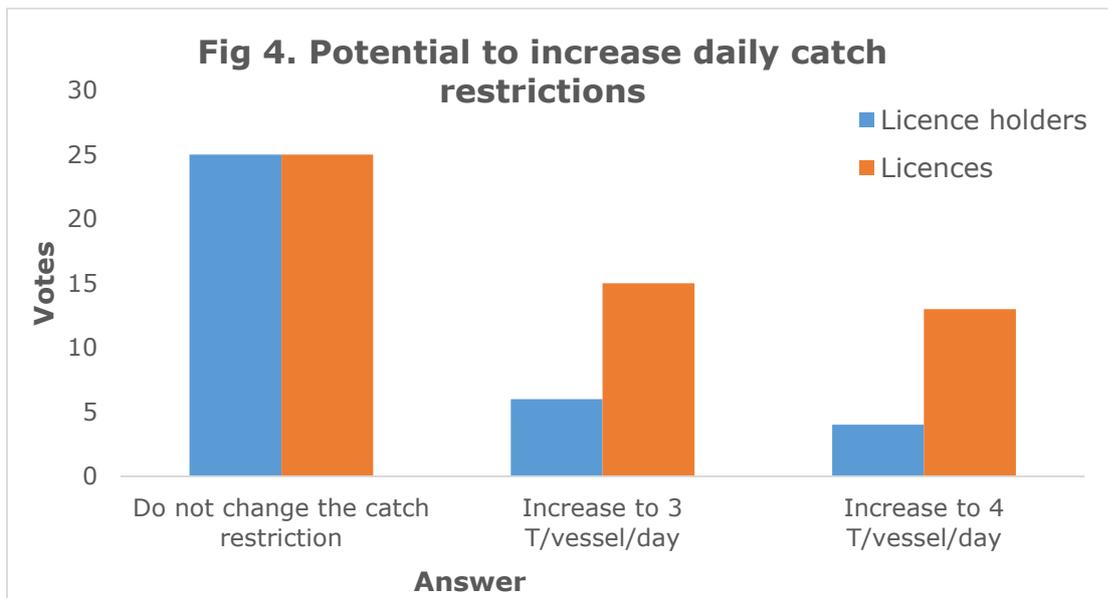


Potential to increase daily catch restriction

Licence holders were asked to indicate a preference for one of the following:

- No increase in daily catch restriction (i.e. remain at 2 tonne)
- Increase to 3 tonnes
- Increase to 4 tonnes

The majority of licence holders indicated a preference to keep the daily catch restriction at 2 tonnes per vessel per day (fig 4).



Comments indicated that the main concern of fishers was the potential to reduce the price of cockles (by flooding the market) and to increase damage to the sands by excessive 'prop-washing'. Many also commented that an increase in the number of open days per

week would allow for additional cockles to be taken to account for the increased risk of die-off.

Other suggestions included starting the fishery at 2 tonnes per day, increasing the daily catch restriction only when the risk of die-off increased and that a dredge fishery would be the most effective method for removing cockles to reduce density.

Open areas

No question was put to the licence holders regarding open areas this year as the fishery requires activity directed on the highest risk beds. However, comments and representations were made with regards to the open/closed areas.

Fishers from King's Lynn are concerned that there is only one area available to smaller vessels. The open area closest to the port of King's Lynn is the Thief. This bed is considered to be relatively low (i.e. does not dry out on neap tides). Fishers are concerned that several days fishing may be lost as this bed will not dry out on tides less than 6.4 meters and that many of the smaller vessels have indicated that they would not be able to travel to the western areas of the Wash unless weather conditions were suitable.

APPENDIX 3

Action Item 6

24th Eastern Inshore Fisheries and Conservation Authority meeting

1 June 2016

Risk Matrix

Key:

	Negligible risk
	Manageable risk
	Evident risk
	Significant risk

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way	Intensity of effort	Significant	Manageable	The tempo, intensity and highly dynamic nature of a dredge fishery is judged to introduce a significant risk of over exploitation of beds that have been opened or via the opportunistic exploitation of other beds. Whilst the TAC is finite and all cockles exploited will count against the overall catch, previous behaviours have shown that closed or restricted areas are

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way				targeted when enforcement presence is not overt. Whilst this is mitigated by the unusually high TAC this year it is still considered a risk. Conversely, a hand worked fishery is operated at a lesser tempo and is a more fixed activity that will enable IFCA staff to apply a sustained and sustainable monitoring effect and thereby mitigate any risk of overfishing.
	Excessive breakage of cockles	High	Negligible	High breakage rates that may be associated with a dredge fishery through poorly tuned and/or operated fishing gear will hazard the sustainability of stocks as a consequence of the high mortality rate for damaged cockles. There are no cockle breakage issues with a hand-worked fishery.
	Displacement of cockle fishers into other fisheries within the district	Manageable	Manageable	A dredge fishery by its nature and higher daily quota will cause the stocks of cockle to be harvested more quickly than the hand-worked fishery, which may lead to the fishing community seeking to exploit other fisheries within the district and may introduce a risk of displacement. This must be balanced against that fact that a vessel rigged for dredging cannot exploit another fishery. Furthermore, vessels used for dredging

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way				<p>operations often enter a maintenance period after the fishery has closed.</p> <p>The greater duration of a hand-worked fishery is likely to occupy a greater number of fishing operators for a longer period. That said, a vessel used for a hand worked fishery can easily change to fish for another target species increasing the risk of displacement.</p>
	Threat to the long-term sustainability of stocks	Evident	Manageable	<p>On balance, using the detail listed below, it is judged that a dredge fishery conducted in a manner similar to that experienced previously within the Wash will introduce the most risk to the long term sustainability of stocks.</p> <p>It should be noted that dredged catch is separated at the dredge head or riddled on-board, which results in smaller cockles being discarded. However, those that are discarded suffer from very high mortality rates if they are damaged and up to 20% die even if apparently undamaged. This represents an unsustainable</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
<p>Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way</p>				<p>loss of stock when balanced against the long term viability of the fishery.</p> <p>A hand worked fishery requires cockles at a certain density to make it viable and may not include riddling. This introduces risk if dense juvenile stocks are targeted as opposed to beds with less dense adult stock. This is mitigated by the relative inefficiency of hand-working which does not enable exploitation to a level that can be achieved via mechanical means. Similarly, if hand workers knowingly target juvenile and undersized cockles in easily accessible beds whilst ignoring larger adult cockles present in lower densities on beds that are further afield, it can threaten the sustainability of stocks. In 2013, despite the recommendations of officers, fishers elected to target juvenile cockles but this behaviour was supported by market conditions that demanded smaller cockle meats. One of the key mitigation factors is for buyers to demand adult cockle and decline landings of juveniles.</p> <p>An additional risk to sustainability is introduced if mounds of cockles are not raked out once the daily quota has been exploited as there is a risk that large numbers of cockles may die</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way				There is conflicting evidence regarding recovery of the grounds. In the Wash there is evidence that some beds have taken longer to recover following a dredge fishery. Equally there are reports from Cefas and other that clearly state that either dredging has no effect on subsequent spat settlement or indeed that dredging promotes physical and chemical attraction resulting in increased spatfalls.
	Trans-shipping	Evident	Manageable	<p>Transshipping is not permitted where a vessel is carrying dredge equipment (Council Regulation 850/98). The quantities that can be harvested using a dredge mean that there is a risk of transshipping in a dredge fishery in order to disguise the true quantity taken from the fishery by individual vessels</p> <p>The risk in a hand-worked fishery is still evident but less likely and therefore manageable.</p>

Liability of introduction of risk					
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		Dredge	Hand-work	Comment
<p>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</p>	Disturbance of protected features	Sediment	High	High	<p>Disturbance to sediments that support other flora and fauna within the Wash European Marine Site is a key concern.</p> <p>Both dredging and hand worked (augmented by prop washing) methods introduce significant risk if conducted badly.</p> <p>A dredge blade that is allowed to excessively penetrate the ground will have a churning effect that enables the toxic lower sediments which do not support marine life to be exposed over wide areas relatively quickly. This is mitigated by the impact of poorly deployed dredge gear which would quickly affect the steerage of the vessel so would be evident and also the dredge would block causing an interruption to fishing effort which would not make economic sense.</p> <p>Best available evidence suggests that dredging at high intensity can extend recovery time of benthic communities to the detriment of the ecosystem. Again this can be mitigated by management measures including opening other beds and/or restricting effort when catch falls below a certain quantity per hour.</p>

Liability of introduction of risk					
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		Dredge	Hand-work	Comment
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					<p>The key risk associated with a hand worked fishery is the routine use of 'prop washing' or as a method of gathering cockles before harvesting. It has been used regularly within the Wash and when poorly conducted causes deep and lasting impact upon the grounds, which is judged to be at least as damaging as poorly conducted dredging. It should be noted that in 2015 the behaviours in the fishery were encouraging with no instances of excessive prop washing causing damage to the beds (albeit pictures in the Mail Online suggested that excessive damage may be caused but officers and NE colleagues did not share this analysis).</p> <p>There is no risk of prop wash with a dredge fishery.</p>
	Protected bird species		Manageable	Evident	<p>The hand-worked fishery potentially has a greater disturbance effect on birds, as it is conducted over low water when birds gather and feed on mudflats (whereas the dredge fishery is conducted over high water). The likely longer duration of a hand-worked fishery than a dredge fishery presents a longer-term effect. However, this is mitigated by the consideration of "core bird</p>

Liability of introduction of risk					
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		Dredge	Hand-work	Comment
<p>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</p>					<p>areas” in the pre-fishery assessment and if necessary closures around such areas.</p> <p>Dredge fishing does not create the same potential disturbance of birds using the site at low water, and is therefore less of a risk.</p>
		Common seals	Negligible	Manageable	<p>A hand-worked fishery if coincident with the locations of seal populations could have a disturbance effect, but this can be mitigated by the use of closed areas (as applied in the 2015 fishery during the most sensitive period for seals).</p> <p>A dredge fishery is unlikely to cause any disturbance to seal populations.</p>
		Mussel beds	Evident	Negligible	<p>It is judged that there is a risk of damage to adjacent mussel beds if dredges are not controlled precisely.</p> <p>Hand-working will have a negligible impact upon adjacent mussel beds as these will be easily avoided during the hand-worked fishery.</p>
		Excessive breakage of cockles	Evident	Negligible	<p>The risk of excessive breakage rates is significant. Should excessive breakage rates remain unchecked there is a direct correlation</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
<p>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</p>				<p>with stocks available to support bird stocks, which would need to be reflected in the determination of Total Allowable Catch. To mitigate the impact of excessive breakage rates management measures to mandate a riddle size of 12mm and introduce restrictions on discards can help to reduce the risk.</p> <p>Hand-working will not introduce a risk of excessive breakage.</p>
	Intensity of effort	Evident	Manageable	<p>The tempo, intensity and highly dynamic nature of a dredge fishery is judged to introduce a significant risk of over-fishing either through over exploitation of beds that have been opened or via the opportunistic exploitation of beds situated on the inbound/outbound routes from landing ports. Whilst the TAC is finite and all cockles exploited will count against the overall catch, previous behaviours have shown that closed or restricted areas are targeted when enforcement presence is not overt.</p> <p>Conversely, a hand worked fishery is operated at a lesser tempo and is a more fixed activity that will enable IFCA staff to apply a sustained and</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
<p>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</p>				sustainable monitoring effect and thereby mitigate any risk of over-fishing.
	Breach of fishing gear requirements	Evident	Manageable	<p>The risk introduced through any breach of fishing gear requirements is judged to be greater for a dredge fishery by dint of the rate of fishing enabled by mechanical means. The last dredge fishery was conducted in 2008 and gear would ideally be fully set to work and tested in advance. This is not possible and members should note that all gear must be inspected by IFCA officers and certified to assure fitness for purpose. The logistics of conducting this activity on circa 50 fishing vessels within the requisite timescales will be significant. Such inspection would enable some mitigation of the risk but it is judged not to be material to the overall judgement.</p> <p>Previously the routine use of anchors and/or bags to enable prop washing was considered a distinct risk associated with a hand worked fishery. Following a brief trial in 2013 it was demonstrated that using a bag to fix the head of the vessel can, with appropriate use of engine power, reduce the impact of prop washing. This</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
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				will require further experimentation before the overall risk is able to be reviewed.
	Fishing in prohibited areas	High	Manageable	<p>There is a greater risk of fishing in prohibited areas associated with a dredge fishery. Staff resource constraints mean that the risk is not able to be mitigated in any meaningful way which drives an assessment of significant risk.</p> <p>By its nature a hand worked fishery is more fixed activity and any risk of fishing in prohibited areas can be mitigated relatively easily. It should be noted that despite this there was a significant incursion into a closed area during 2015.</p>
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	Displacement	Manageable	Manageable	<p>A dredge fishery by its nature will cause the stocks of cockle to be harvested more quickly which may lead to the fishing community seeking to exploit other fisheries within the district and may introduce a risk of displacement. This must be balanced against that fact that a vessel rigged for dredging cannot immediately exploit another fishery. Furthermore, vessels used for dredging operations often enter a maintenance period after the fishery has closed.</p> <p>The greater duration of a hand-worked fishery is likely to occupy a greater number of fishing</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
				operators for a longer period. That said, a vessel used for a hand worked fishery can easily change to fish for another target species increasing the risk of displacement.
Seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district	Fishing capability	High	Negligible	Not all within the Wash fishing community possess the capability to exploit the fishery via suction dredge, which means a decision to allow a dredge fishery would disadvantage some as they would be required to work to a lower daily quota. A hand-worked fishery can be pursued by all.
	Socio-Economic	Evident	Manageable	The shorter duration of a dredge fishery introduces a greater risk of socio-economic impact through foreshortened employment opportunities for those who rely heavily on income from the cockle fishery. It should however be noted that all Wash based vessels with the requisite licences can exploit other Wash based fisheries once the cockle season has completed and it is a matter of personal choice whether they decide to do so. That said, this can increase pressure on the other Wash fisheries and stifle attempts to rest other stocks. Greater

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
Seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district				<p>pressure on stocks leads to lowered catches therefore decreased income</p> <p>Conversely, a hand worked fishery provides for sustained employment opportunities and represents the preference of the majority with the fishery.</p>
	Corporate profitability	Negligible	Manageable	<p>For the larger commercial fishing operations in the Wash, those who have invested heavily in vessels, fishing gear and ancillary processing equipment, a dredge fishery represents the most viable business opportunity. It enables cockles to be gathered quickly for subsequent processing but not the live market (which is the most valuable) when they are at their maximum meat yield (and profitability). It allows for efficiencies in employment and other overheads costs. It provides a return on investments made to date and supports local employment opportunities.</p> <p>Furthermore, small business models can profit from a harvest of bigger, more valuable cockles from less dense beds allowing juveniles to grow on and support subsequent fisheries.</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Dredge	Hand-work	Comment
				A longer duration, lower tempo hand worked fishery that does not necessarily target the most profitable cockle stocks, introduces more risk to the larger business model and does not allow for business efficiencies which may introduce overall risk to the viability of the business and hence the employment opportunities associated with it. However for 2016 this is mitigated by the large quantity and density of cockle stocks.
	District wide impact	High	Manageable	<p>A dredge fishery will consume a significant proportion of Enforcement resource and the majority of other officers for the duration which means that resources will be withdrawn from duties elsewhere in the district which will hamper support to other commercial and recreational fishing activities</p> <p>A hand-worked fishery gives greater latitude to manage district wide duties in tandem with Wash based activity.</p>
	Regulatory interference	High	Manageable	The requirement for EIFCA officers to individually board each fishing vessel to inspect all dredge gear will inevitably drive a higher risk of interference with fishing operations.

Appendix 4

Action item 6

24th Eastern Inshore Fisheries and Conservation Authority meeting

1 June 2016

WFO Cockle Fishery 2016 – 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 cockle fishery 2016/17 from the date specified in Licence Condition 2 (Open date of fishery).

Licence Condition 1: Fishing Method

It is prohibited to fish for, take or remove from the fishery cockles using any method other than hand-working which can be augmented by prop-washing so far as it is permitted by Regulation 1 of the Wash Fishery Order 1992.

Licence Condition 2: Opening Date

The fishery will open on a date to be determined by the A/CEO

Licence Condition 3: Open/Closed areas

It is prohibited to fish for, take or remove from the fishery cockles from any area except those marked out as open in the charts publicised by Eastern IFCA.

Licence Condition 4: Days of Operation

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

Licence Condition 5: 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 Wednesday of the week following any such fishing activity.

Licence condition 6: Transhipping Prohibition

It is prohibited for any licence holder fishing for, taking or removing cockles from the regulated fishery to tranship or otherwise relocate any cockles or containers of any description containing cockles, from one vessel to another.

Licence condition 7: Requirement to Land

All cockles fished for, taken or removed from the regulated fishery must be taken straight to port and landed and must not be left on the sand or deposited in the water in bags or other containers for later collection.

Licence condition 8: Dual Fishing Prohibition

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

Licence condition 9: Standard Bags

No person shall land cockles or mussels fished for, taken or removed from the regulated fishery in any container other than a bag which must;

(1) be of the following dimensions:

- a. 120 centimetres or 60 centimetres in height
- b. 97 centimetres in depth
- c. 97 centimetres in width

(2) have the words 'Wash Fishery Order' written on at least two sides with lettering which is at least 4 inches tall.

Licence Condition 10: Automatic Identification System

No vessel shall, during publicised opening times for the fishery, be used to prospect for or to fish for, take or remove from the fishery any cockles unless that vessel is fitted with a Class B Automatic Identification System transponder which is in operation and reporting that vessel's position at all times from leaving the quayside to returning alongside on the same calendar day as the described activity takes place under the authority of the Licence.

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 5

Action item 6

24th Eastern Inshore Fisheries and Conservation Authority meeting

1 June 2016

Eastern IFCA Enforcement Policy

Wash Fishery Order (1992) Cockle Fishery 2016

Special circumstances – 2016 cockle fishery

Eastern IFCA conduct an annual cockle stock survey to determine the size of the cockle stock and inform the management measures for the annual cockle fishery. The management measures for the fishery include a combination of Regulations made under the Wash Fishery Order 1992 (WFO) and licence conditions.

Each year Eastern IFCA varies certain management measures to reflect the need of the fishery. For example; the Total Allowable Catch (TAC) is set according to the size of the cockle stock and different areas of The Wash are opened or closed to the fishery to reflect environmental sensitivities.

The 2016 cockle stock survey has indicated that there is a high risk of cockle mortality. This is likely to occur as a result of:

- a. very dense patches of cockles situated in areas associated with rapid growth (these cockles will be at high risk of 'ridging out' where cockles push each other out of the sand as they grow)
- b. Adult cockles succumbing to 'atypical mortality', an occurrence thought to be caused by a disease that has killed high numbers of cockles in the Wash since its first occurrence in 2008.

As a result, there is the potential that significant amounts of cockles could be lost with no benefit to the fishery or the environment.

In addition, the 2016 cockle survey has concluded an available Total Allowable Catch (TAC) of 8,609 tonnes. This is a significant increase what is considered a 'normal' TAC and the current daily catch restriction (of 2 tonnes per day) would be unlikely to enable a fishery to take the entire 8,609 tonnes during the normal open period.

Policy regarding Regulation 2 – daily catch allowance

Regulation 2 (of the Wash Fishery Order 1992) sets the daily catch restriction for each licenced fisher. It currently states each vessel must not take more than 2 tonnes per calendar day. A cockle fishery operating under this limitation would be unlikely to remove sufficient amounts of cockles to reduce the risk of cockle loss as a result of the special circumstances detailed above.

As such, Eastern IFCA will enforce Regulation 2 (daily quota) as per the policy set out below for the duration of the 2016/17 Wash Fishery order cockle fishery.

Eastern IFCA Policy – Wash Fishery Order 1992: Regulation 2 (daily catch restrictions)

Regulation 2 (daily catch restrictions) currently prohibits the removal of more than 2 tonnes of cockles from the WFO cockle fishery in one calendar day. Due to the special circumstances regarding the 2016 WFO cockle fishery Eastern IFCA will not pursue enforcement action relating to Regulation 2 (daily catch restrictions) unless a contravention occurs where more than 3 tonnes of cockles have been taken in one calendar day. It should be noted that for the purpose of calculating the 3 tonnes no allowance will be made for the weight of any bags, boxes or bins or any sand or other material.

Enforcement Policy – Rationale

Background

The 2016 cockle stock survey has indicated that exceptional quantities of cockles are available to the fishery this year. This is the result of an exceptionally large settlement of spat (cockle larvae) that occurred in 2014, many of which have now reached fishable size. This has resulted in a very high Total Allowable Catch (TAC) recommendation for the 2016 Wash Fishery Order 1992 (WFO) cockle fishery of 8,609 tonnes.

The fishery is managed through a combination of licence conditions (which vary annually) and Regulations (which do not vary). A limited number of individuals are licenced to fish cockles in The WFO cockle fishery. To enable the fishery to take the entire TAC it is necessary to increase the amount of cockle which can be taken each day. By increasing the daily catch restriction (which is currently set at 2 tonnes per calendar day, per vessel in Regulation 2), the entire TAC can be taken during the course of a 'normal' fishery (fig.1).

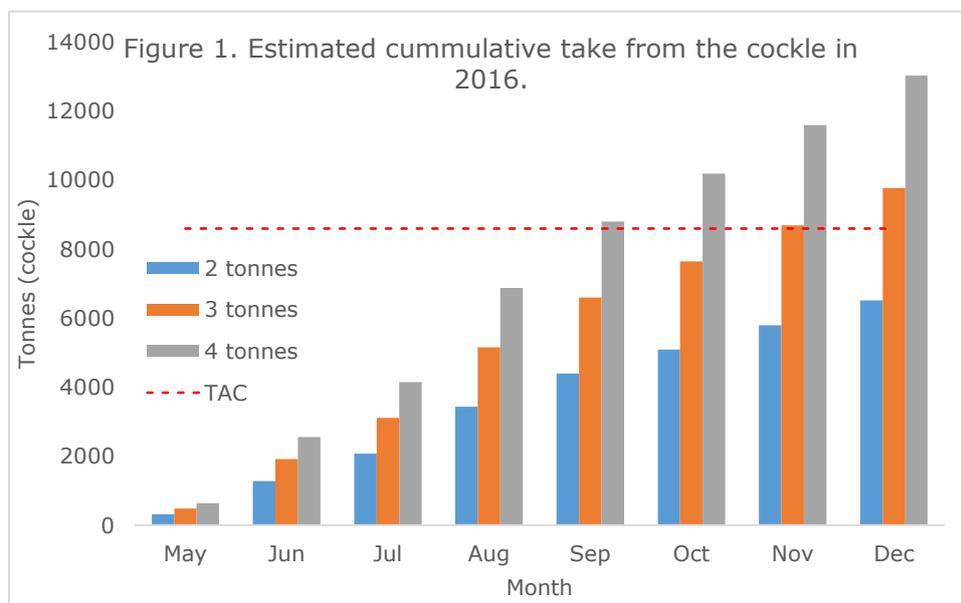


Figure 1. Estimated removal of cockles from the 2016 WFO cockle fishery based on 2015 activity levels with varying daily quotas (2, 3 & 4 tonnes per calendar day). The red line indicates the 2016 estimated TAC.

With the daily catch restriction set at 2 tonnes per vessel, per calendar day, the fishery will not be able to take the TAC during 2016. It is not uncommon for the fishery to have

remaining TAC available in the year following its opening and (as in 2015) an additional fishery can be opened prior to the next fishery to enable fishers to take more of the remaining TAC. In this case, more than 2000 tonnes of the TAC will remain to be taken.

Restricting the TAC from being taken within the 'usual' season (June to October) would however increase the risk of cockles being lost from the fishery during storms. Where cockle stocks and growth rates are high, a phenomenon called 'ridging out' can occur. This is where cockles are so densely packed into the sediment that growth during the summer months causes them to push each other out of the ground. Cockles exposed in this way often die from smothering and entire beds can be lost during storm events.

Since 2008 large scale cockle die-offs have also occurred annually in the Wash during the warmer summer months due to what has been termed 'atypical mortality'. Thought to be caused by a disease, atypical mortality has been observed to primarily affect harvestable sized cockles during warm weather. The stocks on Boston Main and the Roger/Toft sands have attained a size at which high mortalities have been observed in recent years. As such it has been predicted that the cockles in these areas will be highly vulnerable to losses during the summer/autumn when the temperatures reach critical levels.

Increased daily catch restriction

An increased daily catch restriction of 4 tonnes per vessel, per calendar day would reduce the period of the fishery – the TAC is estimated to expire in September in these circumstances (fig 1.). The benefit of increasing the daily quota to this amount would be that the majority of the TAC would be used up during the higher risk summer months when mass mortality events are most likely. Reducing the density of cockles on these high risk beds reduces the risk of the entire bed being lost through 'atypical mortality' or 'ridging out'.

In addition, cockle beds can be lost to atypical mortality very quickly, sometimes over a period of weeks. This would allow Eastern IFCA to direct high levels of fishing effort to areas at the highest risk of a mortality event and effectively 'thin out' the cockles to prevent a die-off.

Alternatively, a 3 tonne daily catch restriction would enable the fishery to continue until November, the more typical finishing point for the cockle fishery. Cockles could be removed at 150% of the rate during a normal cockle fishery and effort could still be directed to those areas where there is a higher risk of die-off. This would also leave scope for the daily catch restriction to be increased to 4 tonnes per day if the circumstances required it, for example if excessive ridging out and/or atypical mortality were observed to result in high stock losses

A 3 tonne daily catch restriction would allow for a more normal paced fishery which would still reduce the risk of a mass mortality event.

Environmental impact

The WFO cockle fishery has operated as a 'hand-work' only fishery since 2009 as conditions have not been deemed suitable to support a dredge fishery. The hand-work fishery involves fishers removing cockles by hand usually using rakes and shovels. A technique referred to as 'prop-washing' is commonly employed to assist fishers in collecting cockles.

Prop-washing involves fishers turning their vessel in tight circles around a single point. The 'prop' (the propeller) washes cockles out of the sediment and into a pile that is more easily fishable than cockles lying under the surface of the sediment.

This method, when applied in accordance with best practice, has a negligible effect on the habitat. If done incorrectly, it can result in deep troughs and/or large piles of cockles left out of the sediment which die quickly from exposure. Eastern IFCA closely monitors prop washing impacts and if bad practice occurs, has the ability to close the fishery to minimise environmental impacts.

Increasing the daily catch restriction is likely to reduce the number of prop-washing events occurring in any one area, because it will result in fewer fishing events during the season. However, it also has the potential to promote poor practice with larger, deeper troughs being created if fishers attempted to release more cockles from a given area by more vigorous prop-washing and thus causing more damage.

Given the exceptionally high densities of cockle present in this year's fishery (noting that the beds of the highest density are those which are proposed to be opened) it is likely that prop-washing to the same degree as in a 'normal' fishery would yield enough cockles to meet the requirement of the increased daily catch restriction. i.e. additional or more vigorous prop-washing is unlikely to be required. As such, it is not anticipated that any additional environmental risk is posed by the increased daily catch restriction than in a 'normal' cockle fishery.

Furthermore, Eastern IFCA has provision to close the fishery (or parts thereof) if damage occurs through this practice and monitors impacts of prop-washing during the fishery.

Economic Impact

Two main business models occur within the WFO cockle fishery. Around a third of licences belong to larger, company owned vessels. These vessels have higher overheads and as such, increasing the daily catch restriction will be of benefit to their business model. In addition, the three processing factories (two in King's Lynn and one in Boston) will reduce costs associated with processing cockle catches.

The majority of licences within the WFO cockle fishery belong to independent fishers who often have smaller vessels. Some of these vessels may be limited in the amount of cockles they can fish by vessel size or the number of crew they employ. Most of these vessels would still be able to take 4 tonnes of cockles on board (which is currently the catch restriction set for a dredged fishery).

Reducing the density of cockles on high risk beds is a legitimate method to prevent loss of cockles. If cockle beds are not thinned, there is the potential for the entire bed to be lost through 'ridging out' or 'atypical mortality'. In 2015, the Roger/Toft sand was successfully 'thinned-out' which has promoted further growth and enabled it to form part of this year's fishery. The 2016 cockle survey has indicated that several areas are at risk and the fishery is unlikely to sufficiently reduce the density of cockles under the current daily catch restriction. Failure to achieve this and subsequent loss of entire beds would have significant longer term financial impacts of the fishery.