



19th EIFCA Meeting

To be held at:

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

3rd June 2015

1000 hours

Meeting: 19th Eastern IFCA Meeting
Date: 3 June 2015
Time: 10:00hrs
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 - *Clerk*
- 2 To accept apologies for absence - *Clerk*
- 3 Declaration of Members' interests - *Clerk*

Action items

- 4 Election of Chairman of the Authority - *Clerk*
- 5 Election of Vice Chairman of the Authority - *Chair*
- 6 To receive and approve as a true record, minutes of the 18th Eastern IFCA Meeting, held on 29 April 2015 - *Chair*
- 7 Matters arising (including actions from last meeting) - *Chair/CEO*
- 8 Wash cockle survey methodology - *CEO*
- 9 2015 Wash cockle fishery - *Senior Research Officer/CEO*

Any other business

- 10 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.

P J Haslam
Chief Executive Officer
18 May 2015

18th 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 29th April 2015 at 1005 hours.

Members Present:

Cllr Hilary Cox	Chair	Norfolk County Council
Cllr Tony Turner MBE JP	Vice-Chair	Lincolnshire County Council
Shane Bagley		MMO Appointee
Stephen Bolt		MMO Appointee
Roy Brewster		MMO Appointee
John Davies		MMO Appointee
Paul Garnett		MMO Appointee
Cllr Tony Goldson		Suffolk County Council
Ceri Morgan		MMO Appointee
Tom Pinborough		MMO Appointee
Keith Shaul		MMO Appointee
Rob Spray		MMO Appointee
John Stipetic		MMO representative
Cllr Margaret Wilkinson		Norfolk County Council
Stephen Williamson		MMO Appointee
Stephen Worrall		MMO Appointee

Eastern IFCA (EIFCA) Officers Present:

Philip Haslam	Chief Executive Officer (CEO)
Andrew Bakewell	Head of Finance
Nichola Freer	Head of HR
Luke Godwin	IFCO / Project Officer
Julian Gregory	Deputy Chief Executive Officer (DCEO)
Ron Jessop	Senior Research Officer
Judith Stoutt	Senior MEO
Pete Welby	Research Officer
Ady Woods	IFCO

Other Bodies Represented:

David Abbott	MMO
Robin Masefield	Cefas
Emma Thorpe	Natural England

Minute Taker:

Jodi Hammond

EIFCA15/25 Item 1: Welcome by Chair

The Chair welcomed members to the meeting and apologised for the slightly later than expected start.

New members, Messrs Davies, Shaul and Williamson were welcomed to the meeting. The opportunity was taken to explain housekeeping issues such as fire exit etc, and advise that if there were any unknown acronyms to please ask for their meaning.

The opportunity was also taken to thank those members who had left the Authority and express EIFCA's gratitude for their contributions since IFCA inception in 2011.

EIFCA15/26 Item 2: Apologies for Absence

Apologies for absence were received from: Cllrs Baker (Norfolk County Council), Fairman (Lincolnshire County Council) & Patience (Suffolk County Council), Mr Donnelly (NE Rep) and Dr Hirst (EA Rep).

EIFCA15/27 Item 3: Declarations of Members Interest

New members were advised it was their responsibility to declare any pecuniary interest which they, their business or any next of kin may have.

In addition to already declared interests Messrs Davies, Shaul and Williamson all declared an interest in the whelk fishery and Mr Williamson declared an interest in matters relating to mussel lays and the cockle fishery.

EIFCA15/28 Item 4: Minutes of the 17th EIFCA Meeting, held on 29th January 2015

Mr Garnett advised that a comment attributed to him in the minutes relating to whelks was not correctly worded.

Members agreed to sign the minutes as a true record of proceeding with the caveat that the wording on page 15 be amended subsequently in consultation with Mr Garnett.

Proposed: Councillor Goldson

Seconded: Mr Worrall

All Agreed

EIFCA15/29 Item 5: Matters Arising

15/3 MUSSEL REGENERATION PROJECT: The CEO advised that direction had been given at the last meeting to continue to expand this project. Support for this project had been received from all but one local fishermen's association. The SRO had already identified suitable sites but the laying of culch would be delayed until early next year to ensure that any spat settlement would be captured and that the investment would be given the best chance to succeed.

15/4 WASH LAY APPLICATIONS: The CEO had been instructed to investigate the possibility of a razor fish fishery. The outcome was that the nature of the fishery would involve electronic harvesting measures and the use of a dredge which was not conducive to the habitat in the Wash. The CEO briefed that he would investigate the control of invasive species as part of the bio security review and would discuss control with those agencies charged with the responsibility.

15/15 BASS MANAGEMENT: At the previous meeting the CEO had been instructed to investigate the possibility of an emergency byelaw for bass management measures. It had been found there was some legal risk in pursuing this approach. Defra have indicated they would be putting measures in place at national and international levels, and IFCA's had been asked to introduce nursery areas and bag limits under the normal byelaw procedure, the CEO anticipated this would be ready for adoption

in January 2016. This would stop unregulated netting activities taking fish at the wrong time.

Mr Pinborough advised that he was disappointed the Emergency Byelaw had not been pursued further.

15/18 STAKEHOLDER COMMUNITY MEETING REPORT: The CEO advised that a letter had been sent to all parties on the WFO entitlement waiting list to enquire whether they still wished to remain on the list. All responses received had been that yes they would still like to be on the list which indicated there was still the need for a waiting list. The Moratorium on Entitlements remained in place whilst further work was on-going.

EIFCA15/30 Item 6: Health & Safety

Two H&S issues had been encountered since the previous meeting. One involved a member of staff who had been taken ill with a cardiac issue. Test results had been inconclusive but the Officer's work load was being monitored to ensure there was no exposure to any unnecessary risk by over exertion.

The other issue involved a member of staff with neck and shoulder problems, new equipment had been provided to alleviate the symptoms and the situation was being monitored.

Members were then made aware of the amended list of risks which identified the new risk of the physical fitness of officers to conduct more arduous duties.

The H&S support service provided by NCC had been reviewed and updated, a copy of the revised proposal was considered by members.

Members Resolved to note the content of the report and to accept the Health and Safety service provision proposal from Norfolk County Council.

Proposed: Mr Stipetic

Seconded: Mr Worrall

All Agreed

EIFCA15/31 Item 7: MMO Appointee length of service ballot

EIFCA had 11 MMO appointees amongst its membership. In order to avoid all of their memberships expiring at the same time those who had taken on the mantle of Chair or Vice Chair of a sub-committee had been given a term of 4 years. One member was mid cycle and therefore his term would not be complete at the same time as other members which left 6 members with terms of membership which needed to be staggered.

In the interest of fairness the names and duration of service were pulled from a hat by Dr E Thorpe (NE) and Dr S Bolt (AIFCA) the result being:

Mr Brewster	3 yrs
Mr Bagley	4 yrs
Mr Davies	3 yrs
Mr Shaul	5 yrs
Mr Williamson	5 yrs

Mr Worrall 4 yrs

After this time the members would either be eligible to apply for an additional period of membership or step down.

EIFCA15/31 Item 8: Review of the Eastern IFCA Constitution

The CEO advised members that in accordance with the constitution the positions of Chair and Vice-Chair should be considered but due to the County Councillors being in purdah and the Chair not having been elected until June, the current Chairs length of service would not expire until June at which point a new Chair would be elected.

Since the previous review of the constitution there had been no legislative or statutory changes, the only minor change was to change reference from 'nominated deputy' to 'deputy CEO'.

Members Resolved to accept the suggested changes with reference to the Deputy.

Proposed: Mr Pinborough

Seconded: Mr Spray

All Agreed

EIFCA15/32 Item 9: Revision of Sub-Committee structure

As a result of new members being appointed to the Authority it was necessary to update the membership of the Sub-Committees. The CEO had prepared a suggested list of membership based on the skill sets required for each sub-committee.

Members considered the proposed membership for EIFCA sub-committees and Resolved to accept them as set out.

Proposed: Cllr Goldson

Seconded: Mr Worrall

All Agreed

EIFCA15/33 Item 10: IFCA Parliamentary Report

The CEO went through the report with members and advised that one outcome of this review was that there would be an appraisal system for MMO appointees.

Cllr Goldson questioned why none of the new appointees were affiliated with Suffolk, which the CEO advised was due to the fact that no one from that area had volunteered to be a member of the Authority. Mr Williamson felt this may have been due to the daunting form which had to be completed, as well as the distance and time which would have to be expended to attend meetings.

It was noted that the Report referred to joint use of resources with other similar organisations. Particular reference was made to leasehold owners looking into co-locating with other bodies when their lease runs out. EIFCA had 2½ years to run on their lease at which point in time it would be necessary to consider possible cohabiting options.

Cllr Goldson questioned whether lobbying had taken place with appropriate MPs with regard to future funding. Dr Bolt advised that there was little opportunity to lobby individual MPs.

Members Agreed to the proposed management actions put forward in the report.

Proposed: Dr Bolt

Seconded: Mr Morgan

All Agreed

EIFCA15/34 Item 11: Association of IFCA's Update

Dr Bolt briefly introduced himself for the benefit of new members, advising that as well as being an MMO Appointee for EIFCA he was also the CEO of AIFCA and therefore represented all 10 IFCA's at a national level, supported by the Chief Officers Group.

He advised members of the main topics being considered by AIFCA at the current time which included sustainable funding beyond 2016. Unfortunately no progress could be made on this until after the election when a comprehensive spending review would be carried out.

Members were also advised that £300,000 had been made available for IFCA's to bid for, this had attracted bids amounting to £330,000 but Dr Bolt was hoping to negotiate for the additional £30,000 so that all bids could be met.

A further £70,000 funding had been spent on a Sonar Camera for use by all IFCA's which would be housed by EIFCA.

AIFCA were also facilitating the Bass Management Measures. Mr Pinborough questioned whether the bass position statement was open to comment, to which Dr Bolt advised all comments were welcome asap before the joint meeting of Defra, MMO and IFCA's. Dr Bolt advised among the issues being considered in relation to bass management was whether the best route to go down would be to introduce a byelaw or amend the Statutory Instrument.

These issues along with trying to find funding for VMS were some of the workstreams being undertaken by AIFCA.

The Chair thanked Dr Bolt for the work he was doing on behalf of IFCA's.

EIFCA15/34 Item 12: Review of MMO Appointee selection process

Mr David Abbott, Head of Compliance, for the MMO gave members a verbal summary of the process undertaken to allocate new members to IFCA's.

At the end of the initial 4 year period since the inception of IFCA's there had been 83 vacant places to fill for which there were 108 applications. 63 previous members had applied of which 59 were reappointed. The main difficulty in reappointing was to maintain continuity whilst keeping a good balance of experience and fresh ideas.

Following the recruitment phase 6 vacancies remained which would hopefully be filled by the summer.

Mr Abbott advised that whilst this process had been achieved with no disruption to the service of IFCA's it was acknowledged it needed to be more streamlined in the future which was why staggering the length of service had been introduced.

Cllr Goldson advised that EIFCA had requested a second RSA representative which had not been achieved nor had a representative from Suffolk he questioned what steps could be taken to address this in future. Mr Abbott advised they could only recruit from those who had applied, perhaps encouragement could be given to those who may be thinking of applying in future.

The CEO appreciated in future encouragement could be given but he also felt it was the responsibility of MMO representatives to get in touch with members from Suffolk in order to ensure the points of view of that sector are considered at future meetings.

Mr Pinborough added that he was disappointed that all the consultation which had taken place had not resulted in a proper balance particularly as he had written and expressed his concerns and EIFCA had clearly set out which skill sets were needed on the Authority. He was particularly concerned as he knew another RSA representative had applied but was not given an interview, why were posts filled with inappropriate people.

Mr Worrall referred to the appraisal process and advised that he felt it important to get the appraisal system in place before the next round of MMO Appointee memberships expired.

Mr Abbott advised that there was a need to balance the skills with the work of the committee and also to ensure appointees were able to function well on a committee. He further advised that the appraisal system was not there to ask members to step down but to ensure that reappointment could be agreed to if it was appropriate at the end of a term, without going through the recruitment process.

Mr Shaul advised that Mr Pinborough should not see commercial fishermen as just that, he had previously been a RSA and was supportive of that sector. The Chair advised all members should be there to represent the Authority as a whole for the good of the IFCA by working together.

Mr Spray was also surprised there were no additional members from the conservation sector he felt it put a heavy load on those who were single representatives of a specific sector. Mr Abbott advised some were interviewed but each IFCA had different requirements.

The question was raised whether additional members could be recruited which the CEO advised would involve a review of legislation.

Mr Abbott was thanked for attending the meeting.

EIFCA15/35 Item 13: Cefas Observer programme – Norfolk Coast potting vessels

Mr Robin Masefield from Cefas shellfish team gave members a brief summary of the Piecrust project which had been running for 3 years and involved the study brown crab and lobster.

The project was divided into three parts which included modelling – to bring workstreams together, growth element – monitoring the growth of crab and lobster kept in cages to get a better idea of growth rates, recruitment – putting together methodology to track year class strengths.

The project was using the North Norfolk fishery as a case study, if the methodology worked out the project would be rolled out to other IFCA's.

Part of the project would also be observer surveys, in order to achieve these fishermen were being asked to allow observers onto vessels during the summer so that the bycatch could be assessed.

The project had one further year to run, it was anticipated the data collection would be finished in September with the project written up by April 2016. Hopefully the outcome would inform on recruitment for the future.

Mr Davies advised that he did not believe it would be possible for the bycatch to be retained on-board as the vessel would not hold it, he suggested measuring samples would be more applicable. He felt that before drawing up the plan a trip should be made to sea to ascertain what would be practical.

1140 hrs – the meeting stopped for a 10 minute break

EIFCA15/36 Item 14: Whelk Emergency Byelaw

The DCEO began by reminding members of the history of this issue and reminded them that at the meeting in January a decision had been reached to put in place an Emergency Byelaw which would address the matter for a 12 month period whilst a permanent byelaw was being drawn up.

Following a quick informal consultation a draft emergency byelaw had been developed and was now put to members for consideration. The aim of the byelaw was to prevent any further increases in effort, either vessel or pot numbers.

The main heading of the informal consultation included Permit charges, returns forms, increase in MLS, increase in riddle size, escape hatches and pot limitation. Some of these matters seemed immediately acceptable however some were more contentious. Escape hatches were not readily accepted but members were advised that KEIFCA had scientific evidence to support this request. Pot limitation also raised concerns as it was felt this would have a disproportionate effect on larger vessels. However the DCEO felt a 500 pot limit was the best option as there had been more comments to say 500 was too many than had been received to say 500 was not enough.

Legal advice had been sought on the wording of the proposed byelaw and it was believed the byelaw would stand up to legal challenge.

Members took time to consider the byelaw questioning levels of bycatch, and whether or not crab and lobster fishermen would be able to land whelk.

There was also concern as to how whelk caught outside 6nm would be treated as this could cause a carriage issue if they were below the MLS, Mr Stipetic offered his assistance with considering this issue if required.

Mr Davies was quite concerned about several of the proposals particularly the cost implications as for generations there had been no charge for whelk fishing, and the introduction of escape hatches which he felt would only allow whelks to enter through the hole and on soft ground would fill with silt. He also expressed concern at the proposals for making gear as he felt it would become costly when pots were lost and additional tags would have to be purchased, in addition to the cost he felt the reflective tape on gear would make lifeboat searches difficult as it would appear very similar to a lifejacket, therefore making it a safety issue. Mr Davies did acknowledge there was a need for a cap on effort but felt that some of the proposals were unacceptable; he was

also disappointed that despite attending a meeting with the CEO and DCEO none of the concerns raised had been addressed.

The CEO reminded Mr Davies that as he was part of EIFCA he was equally responsible for any decisions made, and reminded members that they have a statutory duties under MACAA to deliver. He also advised that under MACAA EIFCA were empowered to recover funds to recoup to the public purse which was what permitting charges would be in place to reflect.

Members were advised by the CEO that the byelaw was a suite of measures which would be sustainable.

The DCEO advised that escape holes were in place in KEIFCA and were seen to be working. He advised that the average catch in a whelk pot was 2kg which did not represent a completely full pot with no movement, he also advised that if the escape hole was relatively high up the side of the pot it would not allow whelks to feed from outside.

Mr Garnett accepted there was a need to reduce the MLS and introduce a minimum bar space to riddles however he wondered whether use of reflective tape when marking the gear should be reconsidered.

The CEO advised that by requesting properly marked gear it would assist enforcement efforts distinguishing the bona-fide fishermen from those fishing illegally.

The DCEO advised that the requirement was only replicating the MCA/RYA guidelines, and if a distinct method of marking gear was not established EIFCA officers would be hauling a lot of gear.

Mr Williamson advised that his factory relied heavily on whelks so accepted sustainability of the fishery was a priority. In his opinion this could be done by controlling the landing of undersize whelk which would protect the stock, introducing a closed season, and applying measures to all whelks landed in the district not just those caught inside 6nm, which would help to deter the nomadic vessels.

The DCEO advised that a closed season had been considered but it was felt it would have no effect and there was no evidence to support it, but accepted it could be considered in the longer term.

Mr Shaul felt more pressure was being put on the fishery as a result of vessels putting pots to sea in an attempt to claim compensation from Dong Energy which was affecting the landing figures. The CEO acknowledged this may be the case but added that now they had started fishing if they were getting a return they would be unlikely to stop therefore EIFCA needed to preserve the viability of the local industry.

Mr Stipetic added that the MMO were looking at the remaining eligibility of u10 metre vessels which hadn't caught crab or lobster in recent years with a new to removing their eligibility to pursue that fishery, which may have the effect of them moving over to whelk fishing

Following comprehensive discussion of the proposed byelaw Councillor Goldson sought an amendment to the proposal, to have the need for escape holes removed from the management measures. Whilst this was seconded by Mr Shaul the vote was not carried. Therefore the original proposal was put forward for consideration.

Members Resolved to introduce the emergency byelaw for the protection of whelk.

Proposed: Mr Pinborough

Seconded: Cllr Turner
With only 3 votes against the proposal and 0 abstentions the vote was carried

EIFCA15/37 Item 15: Meeting of the Planning and Communications Sub-Committee held on 25 February 2015

Members were advised that during the meeting the Annual Plan for 2015-16, the Communications report 2014-15 and the Corporate Communication plan 2015-16 were all approved.

The CEO advised that the Annual Plan would inform the work flow for the coming financial year and the Corporate Communication Plan would ensure the officers continued to be seen and heard, the emphasis for this year would be to target schools.

EIFCA15/38 Item 16: Payments made and monies received during the period 1st January 2015 to 31st March 2015

Members were advised that the fluctuation for month 12 was largely due to the refit on Three Counties which was approximately £40,000, as well as periodic bills which were paid quarterly such as insurances Mr Worrall questioned whether the £40,000 had been anticipated for the refit. The Head of Finance advised that in line with the refit for the previous year £35,000 had been budgeted but this had been slightly higher due to the issue with the cooling system being addressed.

Members Resolved to approve payments of £401,733.10 and receipts of £36,368.02 during the period 1st January – 31st March 2015.

Proposed: Cllr Goldson
Seconded: Mr Stipetic
All Agreed

EIFCA15/39 Item 17: Quarterly Management Accounts

This paper compared the actual expenditure to that budgeted. It was noted that this financial year the expenditure had been much closer to budget than in previous years. The main variances were due to savings on salaries when the Authority had been operating without a full complement of staff, additional spending on mobile phones and the cost of conference calls, as well as some costs being put against alternative allocations would have slightly skewed some of the figures under budget headings.

Whilst not the final figures for the year these figures represented a close resemblance to those which would actually form the end of year figures.

Members Agreed to note the Quarterly Management Accounts.

EIFCA15/40 Item 18: Payment of Expenses to MMO Appointees

Members were asked to consider whether or not expenditure payments should continue to be made to MMO Appointees when attending Authority meetings.

Mr Morgan felt this item should be referred to the F&P Sub-Committee for a small increase to be given consideration. He felt this might offer

encouragement for fishermen from further south to consider applying to be part of EIFCA.

Members Resolved to continue payment of expenses until the next review at the equivalent meeting in 2016. A review of the level of expenses would be carried out by the F&P sub-committee.

Proposed: Mr Morgan

Seconded: Mr Garnett

All Agreed

1320 hrs – At this point the meeting stopped for lunch to reconvene at 1400 hrs

EIFCA15/41 Item 19: Wash Lay Applications Update

Mr Garnett declared an interest and was advised he could speak on the matter but not vote.

The project officer advised that Ministerial consent had been received for lays in excess of 10 hectares.

With regard to other outstanding lay applications it was felt the two on Wrangle Sand and one labelled TH6 had met all the EIFCA criteria for lay ground.

However, two others had not. The area proposed for TH10 had been set with cockle spat in one corner and it was suggested that lay could be given consent providing the boundary was moved away from the cockle spat, which the applicant was in agreement with.

TH9 was set with wild cockle and it was suggested that this lay should not be given consent to go ahead.

Mr Garnett advised that the area covered by TH9 and TH10 had in the past been turned down for lays because it had historically been set with cockles. With regard to TH10 he advised that the spat would spread off slightly so there needed to be a boundary in place to allow for this.

Members also considered the amalgamation of lay holders to form a partnership and two companies.

Members Resolved to:

Agree to approve lays W1, W2 and TH6ext pending Natural England advice and ministerial consent.

Proposed: Mr Worrall

Seconded: Cllr Turner

All Agreed

Agree to approve the lay TH10 as modified pending Natural England advice and ministerial consent.

Proposed: Mr Morgan

Seconded: Dr Bolt

All Agreed

Agree NOT to approve lay TH9 on the grounds that it fails to meet the provisions of the WFO (1992).

Proposed: Mr Spray

Seconded: Mr Stipetic

All Agreed

Agree to consent the partnership between Ms C Oaks, Mr John Lake and Mr John Witt and John Lake Shellfish Ltd under Article 6(6) of the WFO (1992)

Proposed: Mr Morgan

Seconded: Mr Worrall

All Agreed

Agree to consent the partnership between Mr Richard Bagley and Mr Mick Jackson under Article 6(6) of the WFO (1992)

Proposed: Mr Morgan

Seconded: Mr Stipetic

All Agreed

Agreed to consent the partnership between Mr Neil Lake and Merlinward Limited under Article 6(6) of the WFO (1992)

Proposed: Cllr Goldson

Seconded: Mr Shaul

All Agreed

EIFCA15/42 Item 20: Project Inshore stage 3

The CEO advised that Project Inshore provided a road map for inshore fisheries and the project was now putting forward those suitable for MSC accreditation, having met the objectives.

Members were advised that the handwork cockle fishery would get MSC accreditation if the industry were to request it.

Both the pink and brown shrimp fisheries were already undergoing the process.

In terms of other fisheries in the district the CEO felt these were already being managed sustainably or steps were being put in place for them to be.

Stage 4 of the project would be looking for other fisheries to be taken forward for accreditation, the crab and lobster fisheries had been put forward for consideration.

Members Agreed to note the report and that Eastern IFCA should adopt a supporting role if the local industry wished to proceed to MSC full accreditation for Wash cockle.

Proposed: Cllr Goldson

Seconded: Mr Spray

All Agreed

EIFCA15/43 Item 21: Compliance Risk Register and Enforcement Plan 2015-16

Members were advised a Risk Register for enforcement had been developed based on a combination of statistical knowledge and local information.

Mr Pinborough was pleased to see this reflected 10% RSA catch but expressed concern about the difference between MMO and IFCA landing stats, he hoped some work would be done to standardise the information gathering process. The DCEO advised there would be some investigation into introducing formal measures for data collection and

acknowledged there were some data flaws but still felt the outcome was right.

Mr Davies advised it was possible to sell up to 25kg of shellfish without having to report it.

With reference to the Enforcement Plan members were advised enforcement could be applied if necessary but the aim was for compliance. Communication with officers took place in the form of a weekly TCG meeting during the summer and fortnightly meetings during the winter, these allowed for any emerging issues to be picked up and priorities addressed.

The DCEO advised this was the first attempt at an enforcement plan which would be refined with experience.

Members Agreed to adopt both the Compliance Risk Register and Annual Enforcement Plan for the 2015-16 financial year.

Proposed: Dr Bolt

Seconded: Mr Garnett

All Agreed

EIFCA15/44 Item 22: Annual Research Report 2014-15

Previously the Research Report had been one large report detailing the research throughout the year, which had become quite bulky.

The report had been made into discreet subject reports for each project, all of which were available on the website and would be published closer to the actual date of the survey.

Members Agreed to note the report.

EIFCA15/45 Item 23: Research and Environment Plan 2015-16

The draft was put forward for consideration by members. The Plan set out the core project for both the Research and Environment teams with a section provided to show how much time would be spent on each project.

The amount of work achievable had been limited to available time with 80% of the research time available being spent on core projects leaving only 20% for discretionary projects such as the Mussel Regeneration Project. These projects were also guided by other structures in place such as the Annual Plan.

Members Agreed to approve the Research and Environment Plan 2015-16.

Proposed: Mr Worrall

Seconded: Cllr Goldson

All Agreed

EIFCA15/46 Item 24: FPV Sebastian Terelinck Naming Ceremony

Members were aware that a further protection vessel was being purchased by the Authority, which would be named after a serving officer who died in 1913. The CEO proposed the vessel should be named in conjunction with the King's Lynn Heritage Day on Sunday 13th September 2015.

Mr Garnett advised there were two Sebastian Terelincks at the time and it was his belief it was the younger one not the older one which had died at sea. The CEO advised he would investigate this.

Cllr Goldson agreed in principle to this date but advised he would not be available to attend.

Members Resolved to approve the plan to conduct the naming ceremony in King's Lynn coincident with the planned Heritage Day with a budget of up to £3500 to fund the event.

Proposed: Cllr Goldson

Seconded: Mr Morgan

All Agreed

EIFCA15/47 Item 25: Horsehoe Point cockle fishery

Members were advised that historically any cockle spat which settled in this area was carried away during the winter. The previous winter had been an exception and the spat had stayed in place. Class A Water classification for this fishery given, meaning there was now the potential for this stock to be fished.

The area to be fished was only approachable by land which was a concern for NE as the area was salt marsh.

Emma Thorpe advised that the main concern was access over the salt marsh as NE were conscious this would have a long term effect. There was also concern about the bird disturbance as the fishery would take place at peak bird time and could have an effect on the food availability. Investigation had highlighted an area where track could be laid for a period of 4-6 weeks if permission was given by the landowners. Further investigation into the effect opening the fishery may have on the bird population was being carried out by local bird experts.

Mr Brewster enquired whether NE had looked at fisheries in Wales which are only accessible by land to see how they manage to open the fishery. Emma advised the issues at Horseshoe Point were the access over Salt Marsh which was different to other areas where cockles are accessed by land.

Mr Garnett questioned whether cockles would be opened for fishing on both sides of the run as he felt there was no easy way of crossing the run so access would be needed from both the south and north. The SRO advised most of the cockle was on one side of the run, and he believed the water classification only applied to the southern side.

Members Agreed to note the report and directed the CEO to open the fishery by appropriate means if it is viable to do so.

Proposed: Mr Morgan

Seconded: Mr Shaul

All Agreed

EIFCA15/48 Item 26: Quarterly progress against Annual Plans

This was a matter for information. Members Agreed to note the report.

EIFCA15/49 Item 27: Update of HR Activity

This was a matter for information. Members Agreed to note the report

EIFCA15/50 Item 28: Marine Protection Quarterly Reports

The DCEO advised that the role of Marine Protection was to be reviewed over the next 6 month period.

Vessels:

FPV John Allen was back from Northern Ireland having been modified. The utility of this vessel had been significantly expended as a result there would be diminishing sea time for *RV Three Counties* and a review would begin into what to do with the vessel.

Mr Shaul questioned whether *FPV John Allen* would be used to haul pots, the DCEO advised that *FPV Sebastian Terelinck* would be capable of hauling pots but the intention was only to lift the first one, two or three, not whole shanks. However, before any pots were hauled how KEIFCA operate would be looked into and hopefully the crew would go out with some industry members for guidance.

The build of *FPV Sebastian Terelinck* was progressing with the hull have been moulded, it was expected to be complete in July.

This was a matter for information. Members Agreed to note the report.

EIFCA15/51 Item 29: Senior Research Officer and Senior Marine Environment Officer quarterly reports

This was a matter for information. Members Agreed to note the report.

EIFCA15/52 Item 30: Any Other Business

No other items had been raised for discussion

There being no other business the meeting closed at 1500 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



Action Item 8

19th Eastern Inshore Fisheries and Conservation Authority meeting

3 June 2015

Wash cockle survey methodology

Report by: P J Haslam, CEO; R W Jessop, Senior Research Officer

Purpose of report

The purpose of this report is to brief members on the outcome of a review into the Wash annual cockle survey.

Recommendations

It is recommended that members:

- **Note that the current survey methodology reflects best practice and is recognised nationally as an appropriate means to gather stock abundance data.**
- **Agree that the current survey methodology should be maintained.**

Background

Eastern IFCA and its predecessor has been carrying out cockle surveys in the Wash since 1995 and before that, Cefas and other Government agencies were conducting annual surveys from the mid-eighties. The purpose of the surveys is to establish data regarding the abundance, density and location of cockle stocks in order to inform fishery management policies and decisions.

Of late, there has been a degree of stakeholder concern over the methodology used to conduct and the overall timing of the sampling regime. Noting these concerns, a review of cockle survey methodology and practice has been conducted.

Report

The report of the review is at Appendix 1. Key findings are as follows:

- The surveys need to be carried out as part of the Authority's duties under the Wash Fishery Order 1992 and statutory Birds and Habitat regulations.
- The surveys can be conducted on any tide but are significantly constrained by neap tides. The most efficient practice is to coordinate activity with spring tides
- Any reduction in the number of survey stations sampled has a direct correlation to the accuracy of the ensuing data

- Significant efficiencies have been achieved by digitising the processing of raw survey data on board the Research vessel at the moment of collection which has effectively saved a week of office based effort.
- The current methodology used for collecting, processing and interpreting cockle survey data is a distillation of best practice gained from over 20 years of experience.

Financial implications

There are no immediate financial implications to accepting the recommendations above. Cockle survey practice will be held under review to ensure that cost efficiency and value for money is delivered whilst executing statutory duties.

Legal implications

There is no legal risk in accepting the recommendations above.

Conclusion

The processes underpinning the opening of the annual Wash cockle fishery from sea and shore based sampling practice through data processing and production of management information for Authority approval has been scrutinised to assure fitness for purpose and cost effectiveness. The findings show that while there may be alternative means to deliver the surveys, they are not without risk and do not present greater efficiencies or cost effectiveness. Indeed, current standards and practices embed an ownership amongst officers of the whole process which helps ensure appropriate professional rigour.

Appendix:

1. Review of WFO cockle surveys.

Review of WFO cockle surveys

Requirement for surveys

The cockle surveys provide evidence to inform the management of the WFO cockle fishery. This includes providing the following information:

- Stock biomass of cockles $\geq 14\text{mm}$ - used to inform the size of TAC
- Stock biomass of cockles $< 14\text{mm}$ - used to determine proportion of juvenile/adult stocks on each bed
- Stock biomass of Yr-0 juveniles cockles - used to determine juvenile areas to be protected.
- Distribution of the above stocks on the sands - provides spatial data for us/industry
- Population age dynamics - provides supporting information that can be used to determine health of stock and future predictions.
- Additional environmental data - used to support HRA's

Resources used

In 2014 the surveys used the following resources to complete

- 13 days of vessel time - Three Counties and crew (from 19 days rostered - 6 days lost to weather/breakdown)
- 2 days foot surveys from shore
- 49 research officer days involved in above field work
- 8 Research officer days to analyse data, draw charts, write reports and produce presentations etc

Timing of surveys

Surveys were conducted between March 29th and April 29th. Sands with fewer cockles are surveyed first to allow the denser beds slightly longer to grow.

Analysis was conducted between May 1st and May 29th. Meeting papers were submitted by mid-May.

Survey method

Survey stations can be sampled either on foot at low water or with a Day grab from TC at high water. Only about a quarter of the stations can be safely accessed from shore without a vessel. Some are inaccessible on foot.

Deploying the day grab from TC requires 5 crew but in good conditions can be achieved with 4 experienced officers.

Surveys are conducted on spring tides to allow access to all stations. Many of the higher stations cannot be accessed by vessels on neap tides, and the lower stations do not dry at low water.

The timing of high water on spring tides mean we can grab over both high water tides each day and measure samples over the day-time low water period when the vessel dries out and rests on the sands. The night time low water period is suitable for sleeping. The timing with neap tides is problematic and means it is only reasonable to work 1

tide/day on those tides. Using only spring tides means the vessel/crew can perform other necessary duties during periods of neap tides.

Depending how muddy the sediment is, when grabbing, we can usually sample between 15-24 stations/hour from TC. This equates to about 45-80 stations per tide if we don't have to steam far to survey area.

We tend to work blocks of days at a time (staying out at night close to station) because this allows us to maximise the high water periods. On the days we need to steam to or from port, we lose at least half of a survey tide. On a day trip for example, we would struggle to achieve more than 40 samples.

During foot surveys, we usually have 3 surveyors on the sands plus backup either ashore or on the vessel. Depending how muddy the ground is, and how far must be walked to the first station, each person can usually sample between 10 (muddy) and 18 (sandy) stations per tide. It is only possible to survey like this during the day-time low water period. Because of the distance between transect lines, a 3-man team on the sand is optimal. When additional team members are added, the outer transects tend to be at a greater distance to access before surveying commences.

Prior to 2014, survey data were scribed on paper and then digitised during neap tide periods and after the surveys had been completed. During 2014 we successfully tested entering the data directly into a digital database. Although this slowed the measuring process by about 25% during the surveys, it saved a week of data entry at the end of the surveys. (the additional 25% measuring did not impact on how many days the surveys took to complete, but meant officers accrued a few more hours than usual during the course of the surveys).

Excluding the Long Sand (which we rarely survey) the total number of sample stations is 1,348. Not all of these get surveyed every year (some are too high to access if we lose the larger tides through weather). Most years we manage to survey about 1260-1300 stations. These stations are on a regular grid pattern, with the same stations being used each year.

Assessing survey efficiency

One of the main criticisms directed at the surveys is the time it takes from commencement of the surveys to the opening of the fishery. If the weather is warm, significant cockle growth can occur during this period causing an under-estimation of stocks and changes to the proportion of $\geq 14\text{mm}$ cockles on individual sands. Additionally, with increasing workloads, all of our current research programmes require assessing for efficiencies.

The survey process has been assessed to ascertain where efficiencies could potentially be made, which in addition to reducing resources could potentially reduce the delay between commencement of the surveys and the fishery.

The surveys are only one part in the process required to open a cockle fishery. Once the surveys are completed and the data analysed, approval for the fishery must be sought from the Authority at either a MPA or full Authority meeting. For this, papers need to be submitted at least 5 working days before the meeting. Following Authority approval, a full HRA must be completed and submitted to NE (usually a draft HRA is developed prior

to the Authority meeting in order to speed up the process). Following approval from NE, the Cockle Charter requires that a further 7 days' notice is given before the fishery is opened, allowing fishermen time to prepare for the cockle fishery. Together, the above process requires about three weeks from the submission of the Authority papers. For an early-June opening, therefore, papers need to be submitted by the 15th May.

Data analysis/report production

Process involves several stages:

Data entry – In the past this took about 1 week, but using the new database has reduced this process to a few hours to transfer files.

Data analysis/chart production - Analysis of the data and chart production is conducted using MapInfo GIS. SRO is very experienced at this process and has reduced analysis time of spatial data down to about 1 week (used to take about 3 weeks). Other officers however are not practiced with this task so would take significantly longer. MapInfo runs very slowly when accessing files from the server, so for a large project like this, it is better to run off laptop hard drives (approx. 3 x faster).

Consultation, management options and report production – Depending on the complexity of the management measures and availability to meet with other team members, this process takes about 7 days. A presentation is prepared for the Authority after the papers have been submitted. A draft HRA is also prepared at this stage and informal interaction with NE conducted.

In order to have papers submitted by 15th May, data analysis must commence by 1st May.

Survey

The survey method is described in the sections above. There are a number of ways in which efficiencies could be made. These are discussed in the table below. It should be stressed that any efficiency saving poses an associated risk of reduced accuracy and loss of reputation. These surveys, more than any other we conduct are scrutinised by both the industry and conservation bodies. The results are regularly ground-truthed and tested by the 100+ fishermen participating in the fisheries, so any inaccuracies would quickly be highlighted with a potential loss of reputation for the Authority.

The surveys in their current format are widely recognised as being best practice. Although there is a perception that they are overly resource intensive in terms of vessel and staff time, in reality this is not actually the case. Over the course of the year, they take fewer resources than most of our other research projects but produce large benefits for the amount of effort involved. To an extent it is this large benefit that generates a somewhat misleading perception that these surveys are a large drain on resources.

The following table reviews various changes that could be made to the survey methodology and their associated risks.

Measure	Method	Risk
Review sampling strategy to reduce number of survey stations		
Reduce resolution of sampling	<p>The current stations are arranged in a regular grid pattern in which sample stations are either 370m x 340m apart or 280m x 340m apart. The same positions are repeated each year.</p> <p>Reducing the resolution of the sample stations to 400m x 400m would reduce the number of stations from approx. 1300 to approx. 900.</p>	<p>At the current level, each station represents about 11.05ha of bed. Reducing the resolution would increase this to 16.00ha. This would impact on the overall accuracy of the survey and also increase the risk of totally missing small high-density patches of cockles.</p> <p>The strength of our surveys is in their historic record. If needed specific sites can be analysed temporally to identify changes. Changing the resolution would mean we could no longer directly compare spatial data with those from the past record.</p> <p>Although the number of stations would be reduced by 30%, this would not all be gained in efficiencies. Because the stations would be further apart, time taken travelling between them would increase. This would not have a large impact on the sites accessed by the vessel, but would on foot surveys, in which more time is spent travelling between stations than actually sampling them.</p> <p>Changing the stations would not be an insignificant task. The new grid would need to be mapped in GIS, the coordinates entered into the database and also manually entered into both the vessel's Olex plotter and MapInfo 7 systems. This process would take approximately 40 hours.</p>
Changing sampling to a random grid	Rather than surveying in a regular grid, change to a less intensive random sampling strategy	See points above. Any reduction in sampling resolution would reduce the accuracy of the surveys and changing survey sites would prevent direct comparison with the historic record. The new stations would require plotting and

		<p>their positions entering into the database and plotters.</p> <p>Regular grids are ideal for mapping stock densities. It would be much harder to map densities from a random grid. This would significantly increase the time spent at the analysis stage.</p> <p>It is easy to navigate between stations in a regular grid by following the direction of the transect lines. Navigating between random sample stations is much harder and more time-consuming.</p>
<p>Sampling strategically</p>	<p>Excluding the Long Sand, there are 1,348 stations, of which we manage to sample about 1,300 in a given year.</p> <p>Having reviewed the survey record between 2007-2014, cockles have not been found at 327 of the stations during this period. If these stations were no longer sampled, it would reduce sampling requirements to 1,021 stations (a saving of 24%).</p> <p>Using this method, the positions of the existing sample stations would not need to be changed, negating the problems associated with the above two methods. Instead, sites identified as not supporting cockles in the past would be omitted.</p>	<p>Since we began conducting these surveys, their extent has increased over time in response to cockles being found by the industry in unsurveyed areas. These have included significant stocks on high ground at Butterwick, the whole of the Dills, a patch on the Roger sand, the southern part of the Thief and Whiting Shoal. This year a large part of the fishery took place on a part of the Gat sand that falls outside of our survey area. Missing such areas risks loss of reputation for EIFCA.</p> <p>The main risk of this approach would be if settlement occurred in an area that was no longer surveyed, it would be missed.</p> <p>The full 24% reduction would not be saved from the survey process as some sites would become further apart. In several cases the identified stations are on high ground that is currently accessed on foot from shore. In these cases, the surveyor would still be walking over the station in order to access more distant sites.</p>

Review survey method to identify efficiencies		
Utilising neap tides in addition to spring tides	The time taken to complete the surveys could be condensed by surveying during neap tides in addition to spring tides.	<p>Although this would reduce the overall time from start to finish, surveying would be less efficient on neap tides. As such, the amount of officer time spent surveying would increase if this approach was adopted.</p> <p>There would be serious staff rostering problems associated with this approach as the vessel would need to be at sea continually. Currently staff downtime, vessel maintenance, and other necessary duties are performed during periods of neap tides.</p> <p>This method would only be beneficial if the main driver was to condense the overall survey period.</p>
Utilise fishing vessels to conduct surveys	If fishing vessels were chartered to conduct the surveys in support of TC, the time taken to complete the survey programme could be condensed. Additionally, because the fishermen would be part of the process, efficiencies would be made in our overall staff time.	<p>We currently only have a single day grab. There are others available from other IFCA's and Cefas but this will be prime survey time so their availability is questionable.</p> <p>We currently only have one set of 0.01g scales that are required for measuring samples. These cost about £400 each.</p> <p>Health and Safety issues. Most fishing vessels are not rigged for deploying day grabs. Even when conducting a survey for sublittoral mussels using the most modern fishing vessel in the fleet, we ran into serious H&S issues while deploying the grab. Each deployment risked injury to fingers and ultimately resulted in damaging the grab itself after about 30 samples.</p> <p>Positions of required sample stations would need to be</p>

		<p>entered into vessel plotters.</p> <p>There would need to be close coordination and supervision to ensure all stations were sampled without duplication. Care would also need to be taken that data was properly organised.</p> <p>There would be significant additional costs involved with chartering vessels.</p> <p>There would be practical issues associated with working from fishing vessels. Few vessels currently stay out overnight or are adequately equipped to do so. This would probably mean them being limited to shortened survey periods with long steaming times.</p>
Using volunteers	<p>Volunteers could be used to support staff on the vessels or when walking sands. This could either be used to reduce staff hours or reduce the time taken to complete survey.</p> <p>This worked well with Laura Rutland in the past.</p>	<p>Access to volunteers at the required time would be problematic. A lot of volunteer offers come from students looking for summer work. April is generally not a good time for getting student support due to exams.</p> <p>H&S issues. We are limited in what we can allow volunteers to do on the vessels, so we would probably still require a full crew for the duration of the survey. In such cases, even if they help with the measuring/recording of data, our own crew are still captive. If well supervised, however, they could enhance the capability of foot surveys (note limitations on foot surveys given in text above).</p> <p>Support for data entry is no longer required as data is now entered directly during sample measuring. Analysis of data is very specialist so inappropriate here.</p>
Using remote	Possibility of using RoxAnn and/or side scan to map	This is not actually possible with our current equipment.

sensing techniques	cockle beds	<p>Both systems require deeper water to operate than we would have on the cockle beds. Also, cockles are smaller than either system can resolve. Because they tend not to leave much of an identifiable presence on the seabed surface, their presence would almost certainly be masked by features like sand ripples and waves, or changes between sand and muddy conditions. At very best, this method would be highly inaccurate at mapping bed extent.</p> <p>The method would only map the extent of the beds. Samples would still need to be collected using traditional methods to determine density and stock biomass etc.</p>
Use of suction dredges to collect samples	Surveying could be conducted by towing suction dredges along transect lines and recording catch rates.	<p>In theory this would work well. However, the survey footprint would be much larger than current. 1300 grabs samples a total of 130m² of ground and collects about 10-20 kg of samples. A standard suction dredge would impact this amount of ground in 175m. The survey would require dozens of km of tracking and produce tonnes of samples. This would be far too much to measure, difficult to record and an inappropriate level of disturbance.</p> <p>Dredges are not 100% efficient, so will lead to underestimation of biomass. For short tows, it is difficult to assess start and end positions of transects.</p> <p>Would need to charter fishing vessel to conduct survey.</p>
Review method of analysis to identify efficiencies		
Digital data entry during survey	Entering data directly into database when samples are measured. This was trialled last year and saved approximately 1 week of data entry at the end of the	Issues with server access and VPN encryption mean the database needs to be ran from a C-drive and backed-up when possible. This poses the inherent risk of loss of data

	survey.	<p>if anything is broken or malfunctions.</p> <p>Although this condenses the overall time taken to conduct the survey process, not all of these savings are made in staff time because it takes longer to measure the samples.</p> <p>Overall, it is recommended that this method is taken forward with recommendations to back up data on portable hard drives and to the server when possible.</p>
Using automated mapping techniques	The cockle density charts are currently produced in MapInfo manually. This requires about 3-5 days to produce cockle densities on each bed for the $\geq 14\text{mm}$, $< 14\text{mm}$ and Yr-0 stocks. We also produce charts showing the distribution of stocks present in densities > 1.5 tonnes/hectare. This process could be speeded up significantly by creating the charts automatically using functions in our Vertical Mapper software.	<p>Caution needs to be applied here</p> <p>Although the software is designed for exactly this type of function, and our regular grid survey pattern is ideal for the purpose, a great deal of care needs to be taken when attempting this. To save time this method was used once to map the YR-0 stocks and everything (including the protected areas) ended up 150m north of where they should have been at the cost of our reputation.</p> <p>By mapping manually, the SRO is able to check the data for errors, knows precisely what protocols are being used to map by and gains a very good perception of the stocks. With auto-mapping, these checks and balances are lost. Our data is closely scrutinised on the ground by the industry, and mistakes quickly identified. It is a good tool for mapping less important features, however, such as lanice, macoma and sediment types.</p>
Review of overall process to identify efficiencies		
Review cockle charter	In order to allow sufficient time for crews to re-equip their vessels, 7 days' notice must be given of the intention to open the cockle fishery. When dredge	The cockle charter was developed following serious accusations from the industry of staff misconduct that ultimately led to an external enquiry The cockle charter

	<p>fisheries are involved, this is quite appropriate but for hand-worked fisheries is unnecessary. This time could be reduced, eliminated or notice of "potential" fishery given.</p>	<p>protects both officers and the industry, so care should be taken if changes are considered.</p>
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Vision

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Action Item 9

19th Eastern Inshore Fisheries and Conservation Authority meeting

3 June 2015

The Wash Cockle Fishery 2015

Report By: P J Haslam, CEO, Ron Jessop, Senior Research Officer

Purpose of report:

The purpose of this report is to inform members of the outcome of the 2015 Wash cockle survey and to present recommendations for the opening of the 2015 cockle fishery and to decide upon the most appropriate management measures taking into account all relevant factors presented in the paper.

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.

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.

Assumption

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

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 2015 Wash cockle survey report at appendix 1.

Note the responses to Entitlement holder consultation at Appendix 2

Note the risks associated with hand worked harvest method as presented at Appendices 3

Note that the results of the 2015 cockle survey indicate that there is only the potential to support a hand-worked fishery. A dredge fishery or a combination of a hand worked and a dredged fishery is not possible owing to stocks not meeting agreed WFO management policy thresholds

Agree to a Total Allowable Catch (TAC) of 2079 tonnes.

Agree to open a hand work fishery in accordance with the recommendations at Appendix 1 on a date determined by the preference of the majority of Wash fishery Entitlement holders.

Approve the delegation to officers to determine opening times for the fishery based upon:

- The preferences of Entitlement holders
- Appropriate tides
- A regular break in the fishery by operating four days per week
- Extension to five days per week should atypical mortality be judged to be a significant factor

Approve the delegation of powers to the Chief Executive Officer to immediately (without seven days' notice) close a fishery or parts of a fishery should malpractice and/or unacceptable levels of sediment damage be observed.

Approve the delegation of powers to the Chief Executive Officer to close the fishery when it is estimated that the TAC has been exhausted (such estimations being based upon a combination of catch returns, data from processors and fishery officer observations).

Approve the delegation of powers to the CEO to restrict access to cockle beds if juvenile stocks are judged to be disproportionately targeted.

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.

Additionally, because 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 there is no unnecessary disturbance to 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'). 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 will be complemented by a meeting with Entitlement holders Monday 1 June 2015. 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

The Senior Research Officer has reported, to the Authority, his findings on the cockle survey conducted between March 18th and Apr 18th 2015. A full report is attached at Appendix one. From this survey, a summary of stocks was calculated (below)

	Tonnes of Stock 2015	Tonnes of Stock 2014
Total Adult Stock (≥ 14 mm width)	6,238 tonnes	11,009 tonnes
Total Juvenile Stock (< 14 mm width)	26,713 tonnes	8,310 tonnes
Total Stock (all sizes)	32,951 tonnes	19,319 tonnes

The surveys found there had been an exceptional settlement of spat on many of the beds during 2014. At the time of the survey, their biomass was estimated to be 19,048 tonnes, representing one of the largest settlements on record. While this level of juvenile stock should provide for some good fisheries from 2016 onwards, the sparse coverage of adult stock currently present offers only moderate opportunities for this year's fishery.

The TAC for the cockle fishery has traditionally been calculated as 33.3% of the adult (≥ 14 mm width) cockle biomass. The adult biomass identified during the surveys was 6,238 tonnes. Based on this figure, the TAC for the 2015/2016 fishery is recommended to be **2,079 tonnes**.

Due to the low levels of adult stocks and the widespread distribution of Yr-0 juveniles present this year, it has proved difficult identifying suitable areas of sizeable cockles to fish, while not disturbing the widespread coverage of the Year-0 juvenile stocks. Traditionally the Wash fishery has focused on harvesting mainly Year-3 and the faster growing Year-2 cockles. In recent years, the impact of high "atypical" mortalities among the adult cockle populations has led fishermen to target cockles that are younger and smaller. Due to the exceptional nature of this year's stocks, officers have analysed the data to identify areas that also include faster-growing Year-1 cockles that could potentially contribute towards this year's fishery. Although these stocks have not contributed towards the TAC, officers feel they will provide fishing opportunities, particularly later in the season. Due to the high levels of Yr-0 cockles present, officers do not feel targeting some of the faster growing Yr-1 cockles this year will have an adverse impact on the sustainability of the stocks. It should be noted, several of the areas proposed to be opened this year are centred around juvenile stocks that were protected from the fishery last year, highlighting the benefits associated with protecting juvenile stocks.

During the analysis of the data, officers have looked for fishing opportunities for both the handwork and dredge cockle fisheries. In order to protect juvenile cockle stocks, dredge fisheries are restricted to those beds that support a cockle stock composition consisting of at least a 70% adult cockle ($\geq 14\text{mm}$ width) biomass. Further, in order to protect the stable biota associated with muddy sediments, dredge fisheries are restricted to areas that are predominantly composed of mobile sandy sediments. Due to the widespread dominance of the Year-0 cockles this year, the only bed that achieves the required adult composition of 70% is the Peter Black sand. As this bed only has an adult stock of 78 tonnes, however, and its sediment is predominantly muddy, it is unsuitable for supporting a dredge fishery. **Due to the composition of the stocks, therefore, the agreed management policies offer no prospect for a dredge fishery during the 2015-2016 season.**

Because it is possible for the handwork fishery to identify and operate within discrete patches of larger cockles, it is possible to open beds to the hand-worked fishery that fall below the 70% adult biomass threshold. It is, nevertheless, important to still protect high densities of Year-0 juvenile cockles. In recent years it has been possible to open all beds to the hand-worked fishery with closures around areas in which the Year-0 cockles have exceeded densities of 1,000 cockles/m². However, the exceptional nature of the 2014 settlement, coupled with low adult stock levels, makes management of this year's fishery more complicated. The Senior Research Officer's survey report in Appendix 1 describes in detail the officers' recommendations for the sites to be opened to the handwork fishery this year. This includes a combination of open and closed areas, plus some stocks that are recommended to be opened slightly later in the season after they have been given an opportunity to grow.

The entitlement consultation indicated a preference for self-regulation with regards to protecting the year-0 and year-1 cockles. For year-0 closed areas there were 9 votes for and 14 votes against. For year-1 closed areas there were 7 votes for temporary closed areas and 12 votes for no year-1 cockle closed areas (appendix 2).

Risk

The Officers of the Authority would encourage Members to consider the risks involved in a hand worked 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 method 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.

Recommended fishery method – Hand-worked fishery (augmented with prop washing) only

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. Some degree of prop-washing may be required on all but the densest pockets of cockles. This makes the cockles easier to access, and also enables the retention of pools of water in

which the cockles can be washed. A code of best practice associated with prop washing has been drawn up which, if adhered to, reduces disturbance to sediments from this activity to acceptable levels. It is relevant to note that previous behaviours have demonstrated that some are willing to use malpractice such as 'blowing out'² in order to exploit the resources available by the most effortless means.

It is relevant to note that current interpretation of Regulation 1 of the Wash Fishery Order prohibits the use of bags or anchors to hold the head inasmuch as '*no vessel participating in the hand-worked cockle fishery may employ any equipment that either fixes the vessel to the seabed or slows the vessel's movement while the vessel's engine is running. This includes anchors, sea anchors, drogues or any other equipment that could be used as an anchor or sea anchor.*'

The reason for this prohibition is that it was previously considered to carry a high risk of excessive damage to the sands. An experiment conducted by Eastern IFCA officers during the 2013 cockle season indicates that when done responsibly, the use of a bulk bag to hold the head of the vessel whilst 'prop washing' resulted in less disturbance to the sand than a vessel not using a bag. These findings have yet to be fully validated and as a consequence the prohibition remains in effect.

There is a risk of damage with a hand-worked fishery which will need to be closely monitored. The code of best practice associated with prop washing has the effect of reducing disturbance from this activity to acceptable levels. It is the officers' opinion that this activity is not detrimental to the site, provided it is conducted in a responsible manner that does not cause excessive physical disturbance to the seabed.

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 the majority 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 such as the ongoing work to address regulation to protect features within European Marine Site.

A hand worked fishery will enable the gathering of the TAC and will also 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.

The opportunities and threats associated with this type of fishery can be summarised as follows:

² An extreme form of prop washing, sometimes using anchors, which results in deeper holes in the sands

Opportunities

- Hand working represents a proven and sustainable method of harvesting cockles.
- Hand working will occupy the majority of Wash based fishermen for a longer duration reducing the impact of displacement caused by lack of alternative fishing opportunities. That said, it is possible that boats from the larger operators may only participate in the fishery for a short duration before targeting other species such as shrimp.
- Hand working using judicious prop washing is acknowledged as offering little threat to designated marine protected areas.
- A hand worked fishery presents an opportunity for all with the Wash fishing community to participate in the fishery.
- Hand working requires minimal capital investment in the vessel³ and associated fishing equipment, and minimal cost in on-going equipment maintenance
- Hand working will enable the gathering of the TAC but may be divided between those immediately available in the 2015 summer fishery and other stocks that mature are exploited in early spring 2016.
- Hand working provides 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.

Threats

- Damage to grounds - the deep circular scarring caused by malpractice when conducting the process of 'prop washing', which accompanies a hand-worked fishery, and results in significant and lasting 'blowing out' rings.
- Further damage to sands can be caused by the keel of boats attempting to move off sands before there is sufficient water to allow the vessel to fully re-float.
- Stock sustainability – prop washing can also cause large residual piles of cockles to be left on the sand which inevitably die as a result if the Code of Practice, which recommends that residual cockles are spread out on completion of fishing activity, is ignored.

³ Most vessels belonging to Wash fishermen are likely to already be suited to hand working due to the other constraints of vessels suited to exploiting the other Wash fisheries

- Stock sustainability – poorly considered fishing efforts or raw economics mean that juveniles are exploited over adult stock because they occupy beds that are easier to access and/or are present in densities that makes hand working easier. This results in future years stocks being depleted while older, potentially more valuable stock is left unexploited.
- Stock sustainability - a hand worked fishery can easily change to fish for another target species increasing the overall pressure on fisheries. This is mitigated by the tempo of fishing activity and the need for crew rest and recovery which means that in practice most only hand work cockles, unless there is a significant break in the fishery owing to neap tides.
- Larger business models reportedly struggle for viability during a hand worked fishery

In accordance with agreed WFO management policies, a hand worked is the only fishing method that can be recommended to exploit the cockle stock available in 2015 and meet the MaCAA 09 duties and responsibilities of the Authority.

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 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.

For a handwork fishery the Entitlement holder consultation indicated no preference (7 votes for, 16 against) for the following criteria:

- Minimum 6.4m tide height
- Open four days per week
- Open weekdays (Monday to Friday)
- Open Monday to Thursday where possible

However of those who voted against the recommended criteria (above) only one voted against a four day week with a preference for Monday to Thursday. The main objection was with regards to the minimum tide height being 6.4m – 15 Entitlement holders recommended a minimum tide height of 6m. In addition, 7 voters suggested that only the afternoon (PM) tides be open to fishing.

Opening Date of the fishery

The opening date of the fishery will depend upon:

1. The advice of Natural England following their appraisal of the Habitats Regulation Assessment; and
2. In accordance with the Cockle Charter, once agreement has been reached with Natural England, the Authority will provide at least seven calendar days' notice of the opening date to allow fishermen to prepare their vessels and obtain a licence.

In preparation of this, the Authority has already submitted the Habitats Regulation Assessment for hand working to Natural England (NE) so this will not delay the opening of the fishery.

The Entitlement holder consultation indicated a preference for an early start to the fishery in mid to late June (appendix 2).

Daily Quota

In accordance with Regulation Number 2 of the Wash Fishery Order 1992, the daily quota per vessel will be

Quota Limitation	Method
2 Tonnes	Hand worked

Catch Returns Data

In order to manage the TAC and monitor where cockles have been lost or harvested it is important that fishermen provide to Eastern IFCA the details of their fishing activities. A catch return book and pre-paid envelopes will be distributed to fishermen on payment of their licence money. Catch returns are expected weekly. Entitlement holders who fail to return catch forms by the allotted day could see their entitlement licence suspended or for repeat infractions, cancelled. Skippers working on behalf of entitlement holders could see financial penalties used.

Appendices

1. Summary of the 2015 Annual Spring Cockle Survey.
2. Wash fishing industry consultation responses
3. Risk matrix
4. Cockle fishery 2014 Industry feedback

APPENDIX 1

19th Eastern Inshore Fisheries and Conservation Authority meeting

3 June 2015

SUMMARY OF THE 2015 ANNUAL SPRING COCKLE SURVEYS

The Authority conducted the majority of the annual spring cockle surveys between March 18th and April 18th. A further day was utilised on May 9th to survey 18 remaining stations in Holbeach that poor weather had prevented from being surveyed in April. 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. This timing allows sufficient time for the data to be analysed and a Habitats Regulation Assessment to be conducted for a mid-June opening of the fishery.

During the course of the surveys, 1,219 stations from a total of 21 sands were sampled. This is slightly fewer stations than usual, primarily due to the relatively small spring tides that were encountered this year preventing vessel access to the higher stations. Unfortunately, the two largest tides on which those stations could be accessed coincided with strong NE winds so had to be cancelled. As these stations are high, however, and usually only support sparse populations of small cockles, their omission will have had only a minimal effect on the overall TAC for the fishery. Figures 1 and 2 show the distributions of adult and juvenile stocks found during these surveys, while table 1 provides a summary of these stocks. From this table the current stocks can be seen to be at the following levels:

Total Adult Stock (≥ 14mm width)	6,238 tonnes	
Total Juvenile Stock (<14mm width)		26,713 tonnes
Total Stock (all sizes)		

32,951 tonnes

The surveys confirmed there had been a very good settlement of spat on many of the beds. Figure 3 shows the distribution of these Year-0 juveniles. These have an estimated biomass of 19,048 tonnes, which is one of the largest settlements on record. While there is optimism that this level of juvenile stock will provide very good fishing opportunities for a number of years from 2016 onwards, the sparse coverage of adult stocks that are currently present offer only moderate opportunities for this year's fishery. Although the adult cockle biomass of 6,238 tonnes will provide a TAC of 2,079 tonnes, the difficulty will be finding suitable areas of sizeable cockles to fish that do not disturb the widespread coverage of the Year-0 juvenile stocks.

Traditionally the Wash fishery has focused on harvesting mainly Year-3 and the faster growing Year-2 cockles. Since 2008, however, high annual mortality rates have had a severe impact on the adult cockle populations, reducing their numbers before they can be fished. As a result, in recent years the industry has tended to target cockles that are younger and smaller. Due to the exceptional nature of this year's stocks, which are dominated by the Year-0 cohort, the officers have analysed the data to identify areas that also include faster-growing Year-1 cockles that could potentially contribute towards this year's fishery. Although these stocks have not contributed towards the TAC, officers feel they will provide fishing opportunities, particularly later in the season. It should be noted, several of these areas are centred around juvenile stocks that were protected from the fishery last year. Together with patches of older cockles, these present fishing opportunities on several sands.

Figure 1. Distribution of cockles
Gtr 14mm width. The Wash
April 2015.

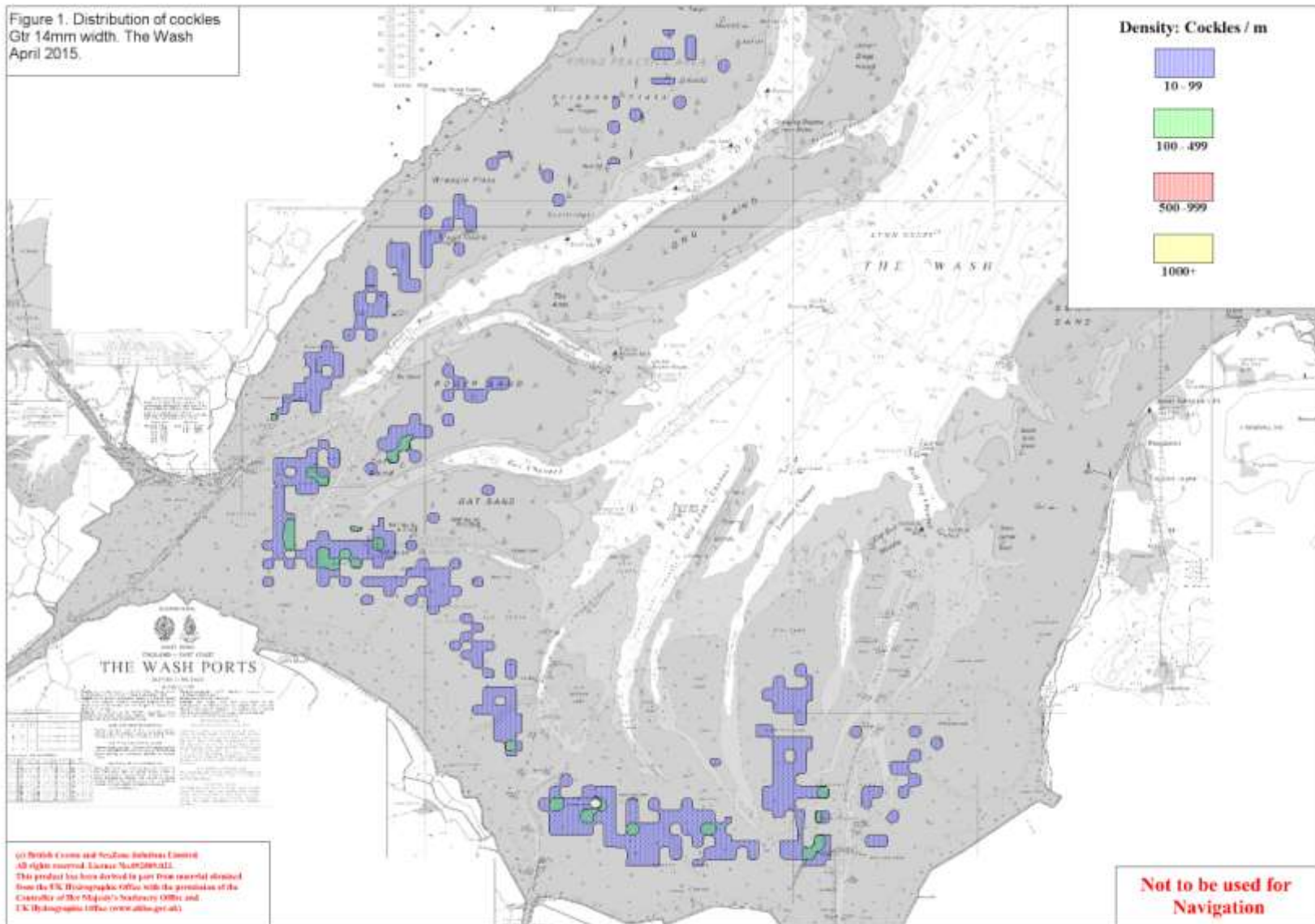


Figure 2. Distribution of cockles Less 14mm width. The Wash April 2015.

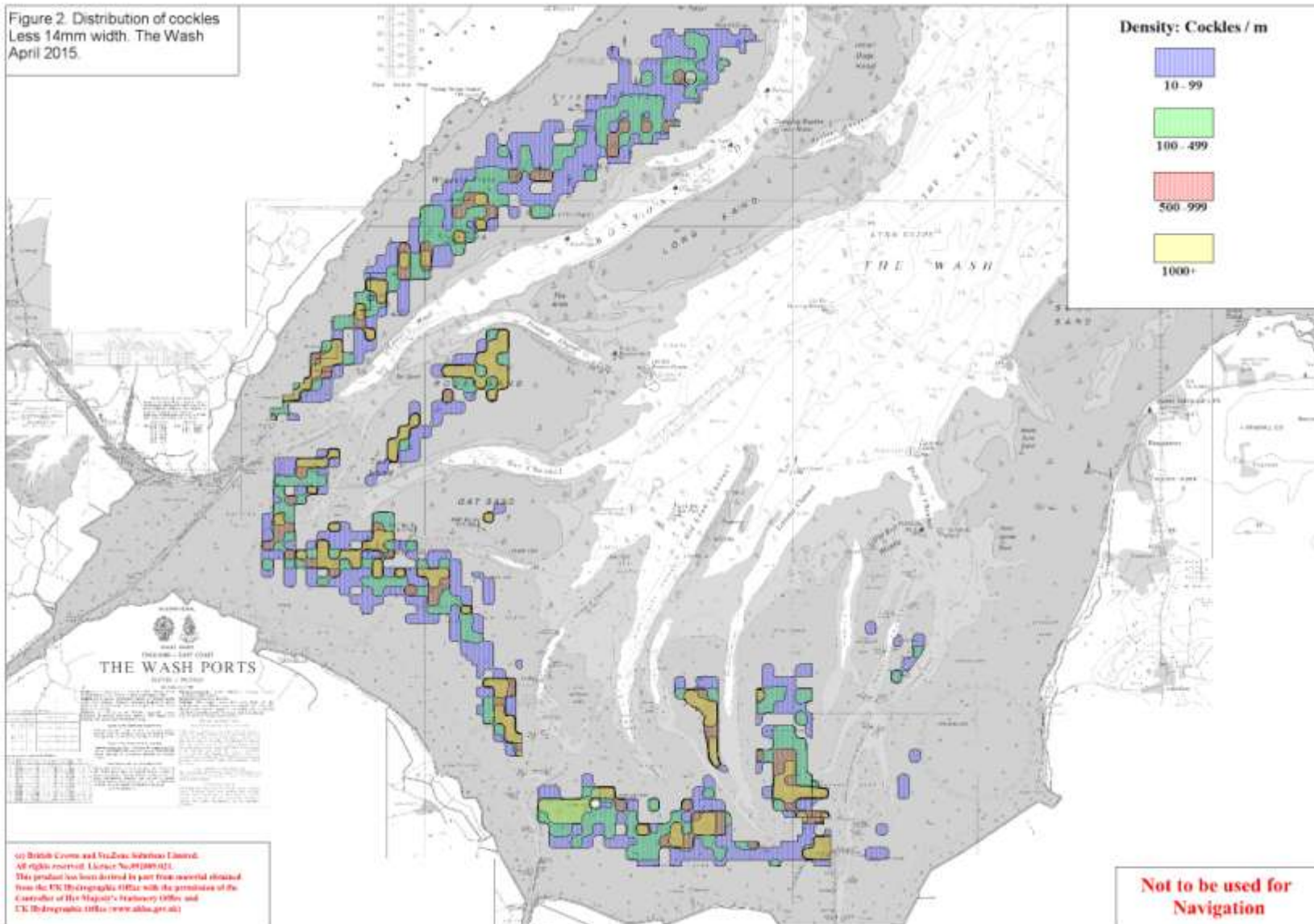


Figure 3. Distribution of Yr0 cockles. The Wash April 2015.

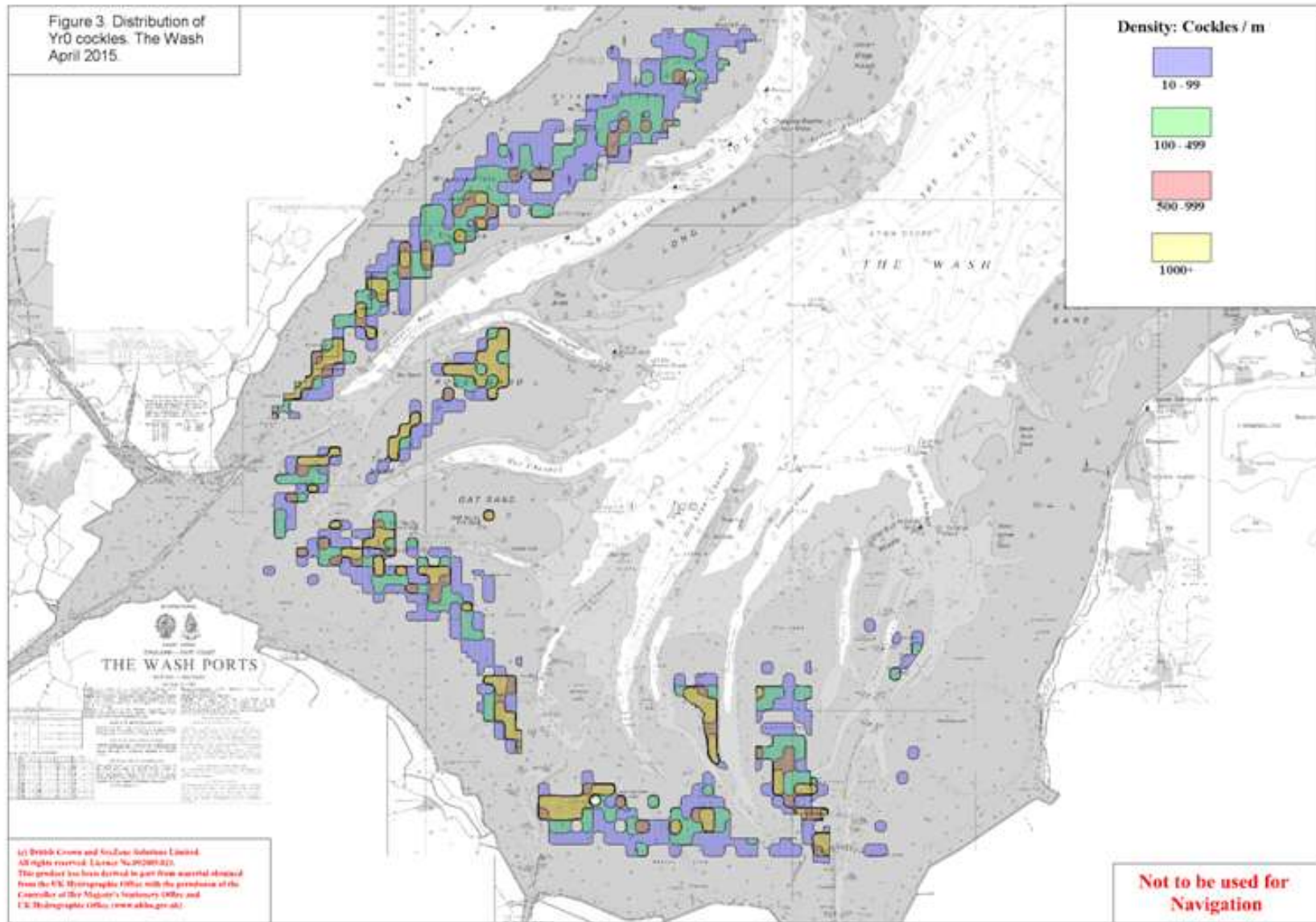


Table 1 - Summary of cockle stocks on the Wash intertidal beds - April 2015

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	132	17.86	1.04	137	285	1395.19	4.47	1274	1411	10
Wrangle	177	13.89	0.94	166	833	333.82	2.77	2309	2475	7
Friskney	58	12.86	0.87	50	649	140.15	2.00	1297	1347	4
Butterwick Ext	189	24.67	1.01	191	244	847.65	3.37	822	1013	19
Wrangle Ext	73	25.00	1.04	75	237	81.25	0.94	222	297	25
Friskney Ext	118	13.00	0.99	116	589	63.78	0.87	511	627	19
Boston Main Total	746			735	2837			6435	7170	10
Roger/Toft	236	42.63	2.02	477	513	2011.20	8.37	4296	4773	10
Gat	22	20.00	1.78	39	38	1605.00	18.07	645	684	6
Herring Hill	167	68.89	2.77	463	272	332.07	4.05	1100	1563	30
Black Buoy	161	68.82	3.31	531	166	1361.67	6.81	1128	1659	32
Mare Tail	289	61.25	2.86	826	460	830.22	4.86	2237	3063	27
Holbeach	505	29.46	1.61	810	908	500.47	2.16	1961	2771	29
IWMK	212	62.50	2.71	574	296	1145.91	3.48	1029	1603	36
Breast	675	40.97	1.74	1172	882	520.12	4.26	3753	4925	24
Thief	6	10.00	1.09	6	176	1860.70	8.82	1554	1560	0
Whiting Shoal	0	0.00	0.00	0	10	40.00	0.39	4	4	0
Daseley's	389	22.86	1.00	388	558	753.73	3.66	2040	2428	16
Styleman's	0	0.00	0.00	0	55	94.00	0.37	20	20	0
Pandora	69	40.00	2.00	139	34	2195.00	14.35	485	624	22
Blackguard	0	0.00	0.00	0	11	10.00	0.07	1	1	0
Peter Black	115	14.00	0.68	78	71	26.67	0.35	25	103	76
TOTAL	3592			6238	7288			26712.8	32951	19

DETERMINING MANAGEMENT MEASURES FOR THE 2015/2016 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 2015/2016 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 2015/2016 cockle fishery.

Total Allowable Catch (TAC)

The TAC for the cockle fishery has traditionally been 33.3% of the adult (≥ 14 mm width) cockle biomass. The adult biomass identified during the surveys was 6,238 tonnes. **Based on this figure, the TAC for the 2015/2016 fishery should be 2,079 tonnes.**

Potential Fisheries

Dredge Fishery - In order to protect juvenile cockle stocks, dredge fisheries are restricted to those beds that support a cockle stock composition consisting of at least a 70% adult cockle (≥ 14 mm width) biomass. Further, in order to protect the stable biota associated with muddy sediments, dredge fisheries are restricted to areas that are predominantly composed of mobile sandy sediments. Due to the widespread dominance of the Year-0 cockles this year, the only bed that achieves the required adult composition of 70% is the Peter Black sand. As this bed only has an adult stock of 78 tonnes, however, and its sediment is predominantly muddy, it is unsuitable for supporting a dredge fishery. **Due to the composition of the stocks, therefore, there is no prospect for a dredge fishery during the 2015-2016 season.**

Hand-worked Fishery

Because it is possible for the handwork fishery to identify and operate within discrete patches of larger cockles, it is possible to open beds to the hand-worked fishery that fall below the 70% adult biomass threshold. It is, nevertheless, important to still protect high densities of Year-0 juvenile cockles. In recent years it has been possible to open all beds to the hand-worked fishery with closures around areas in which the Year-0 cockles have exceeded densities of 1,000 cockles/m². However, the exceptional nature of the 2014 settlement, coupled with low adult stock levels, makes management of this year's fishery more complicated. In areas where Year-1 cockles are likely to be targeted, this may require phased opening dates that would allow these stocks time to grow. Figures 4-8 illustrate where adult and Yr-1 cockles exceed 100 cockles/m², where Yr-0 cockles exceed 1000 cockles/m², and the mean sizes of the sampled cockles (blue dots). These charts have been used to show areas that are proposed to be opened or remain closed to the 2015-2016 handwork fishery.

Boston Main and Roger/Toft

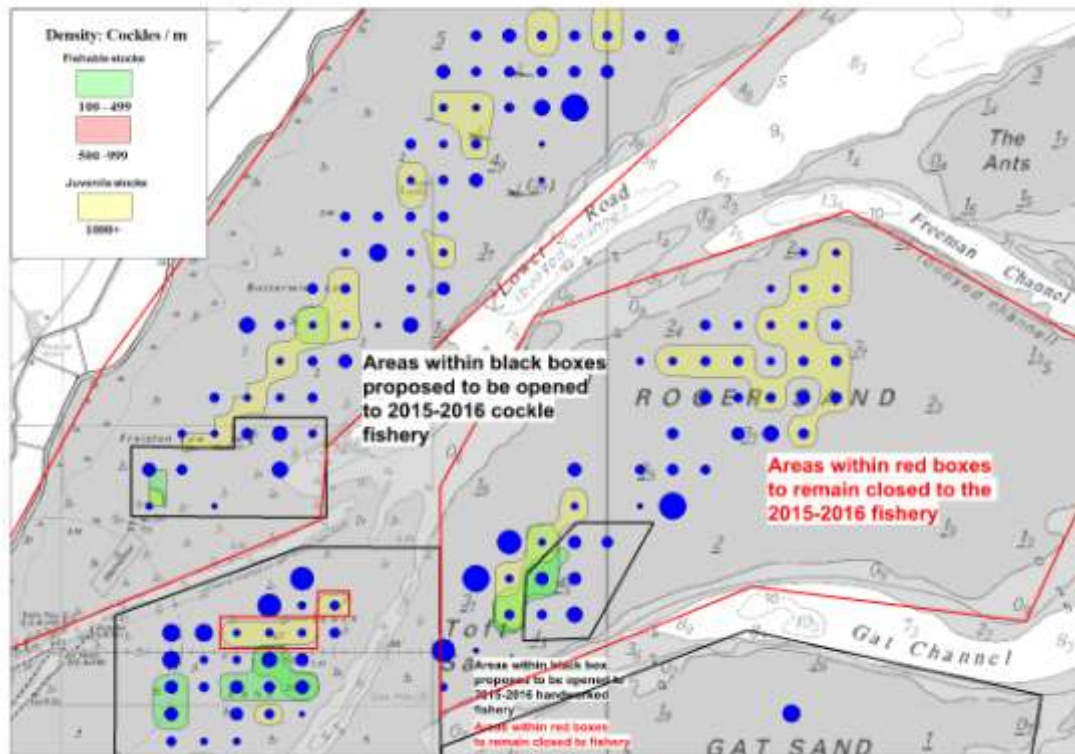


Figure 4 – Chart showing proposed open and closed areas on Boston Main and Roger/Toft.

Boston Main supports good distributions of Year-0 juvenile cockles. These are growing well, and those situated at Friskney and some sites at Wrangle are likely contribute heavily to next year's fishery. Although some of these cockles could potentially reach fishable size this summer, officers strongly recommend that they remain closed this year due to their importance to next year's fishery. There are patches of older cockles at the southern end of Butterwick, though, that could be opened

The Roger/Toft sand supports widespread patches of high density Yr-0 cockles, so should remain closed. The bed does support a patch of older cockles, however, that officers recommend should be opened in order to support the viability of local industry.

Black Buoy, the Dills, Herring Hill and Mare Tail

Black Buoy sand, Herring Hill and western Mare Tail support some of the higher density stocks of older cockles that remain in the Wash. These are anticipated to contribute heavily to the 2015-2016 fishery. Spat settlement in this area during 2014 was less widespread than on other sands but present in localised patches. As such, it will be possible to open a large area covering these sands within which smaller closed areas will be required to protect the Year-0 juveniles.

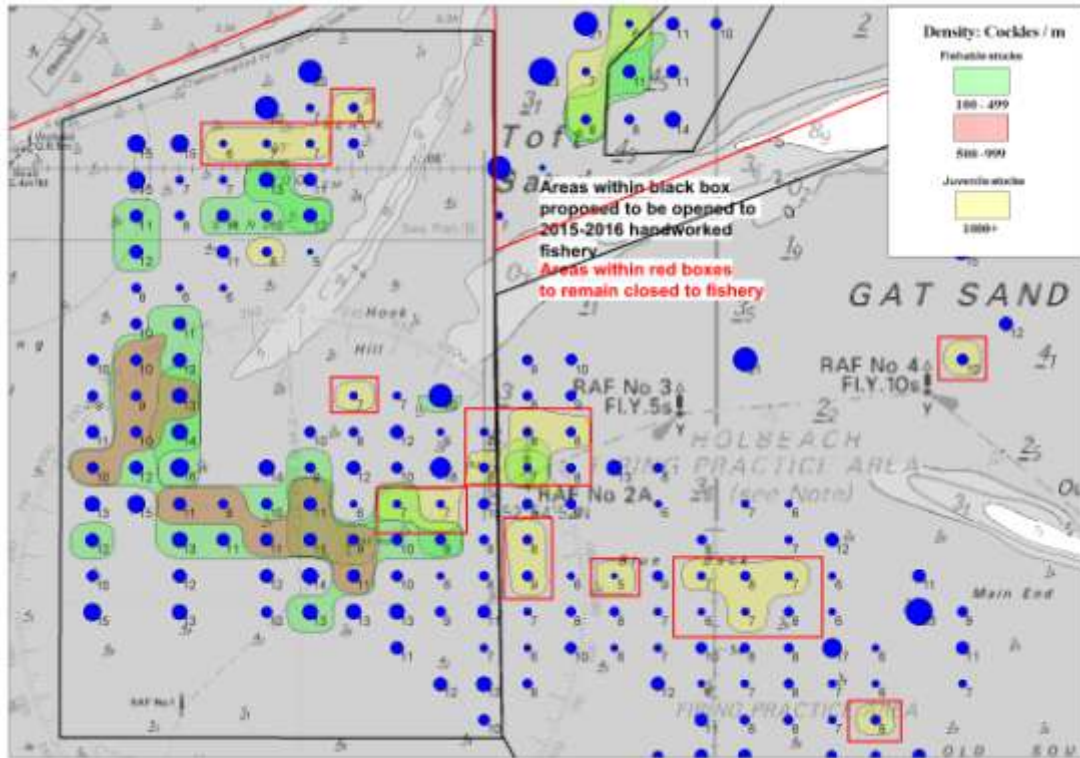


Figure 5 – Chart showing proposed open and closed areas on Black Buoy, the Dills, Herring Hill and Mare Tail

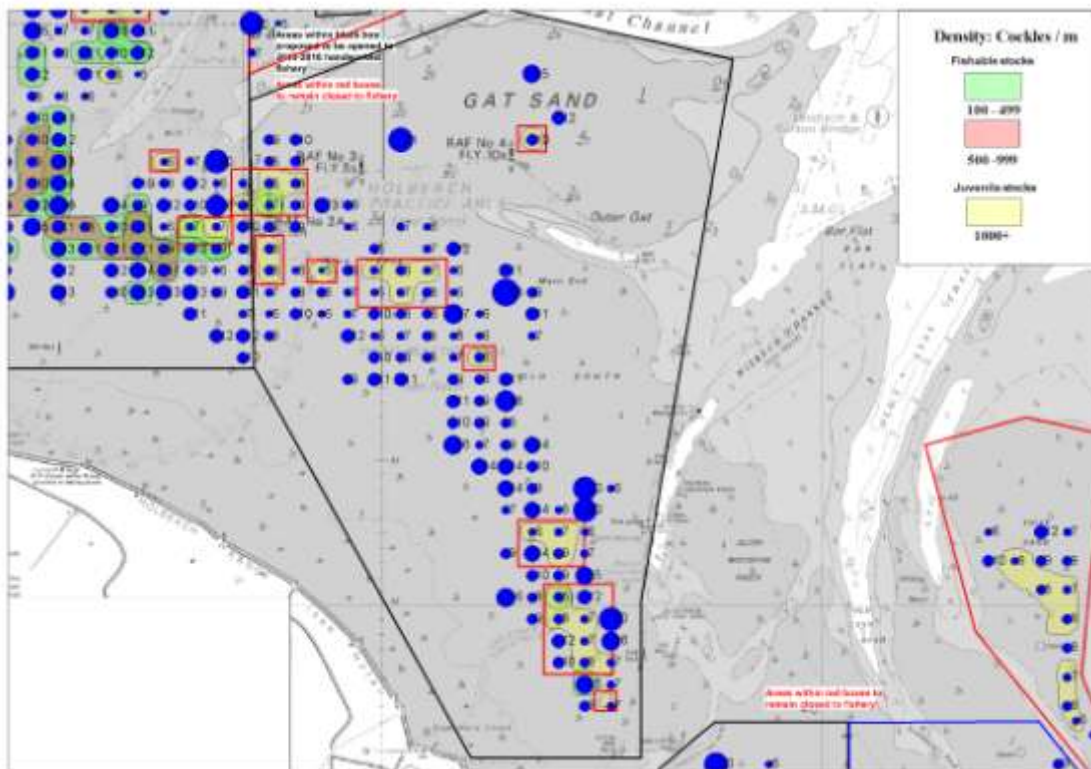


Figure 6 – Chart showing proposed open and closed areas on Holbeach and the Gat sands

Holbeach and the Gat

The surveys only found sparse patches of adult cockles at Holbeach and the Gat, barring a single-higher density patch at the southern end of the survey area in Holbeach. During the 2014-2015 season, there was only limited interest from the industry for fishing Holbeach, although the Gat provided good fishing opportunities at the beginning of the season. Although fishing opportunities are not expected to be great on these two sands, officers recommend that both of these beds are opened to the fishery with closed areas to protect dense areas of Yr-0 juveniles.

Inner Westmark Knock and West Breast

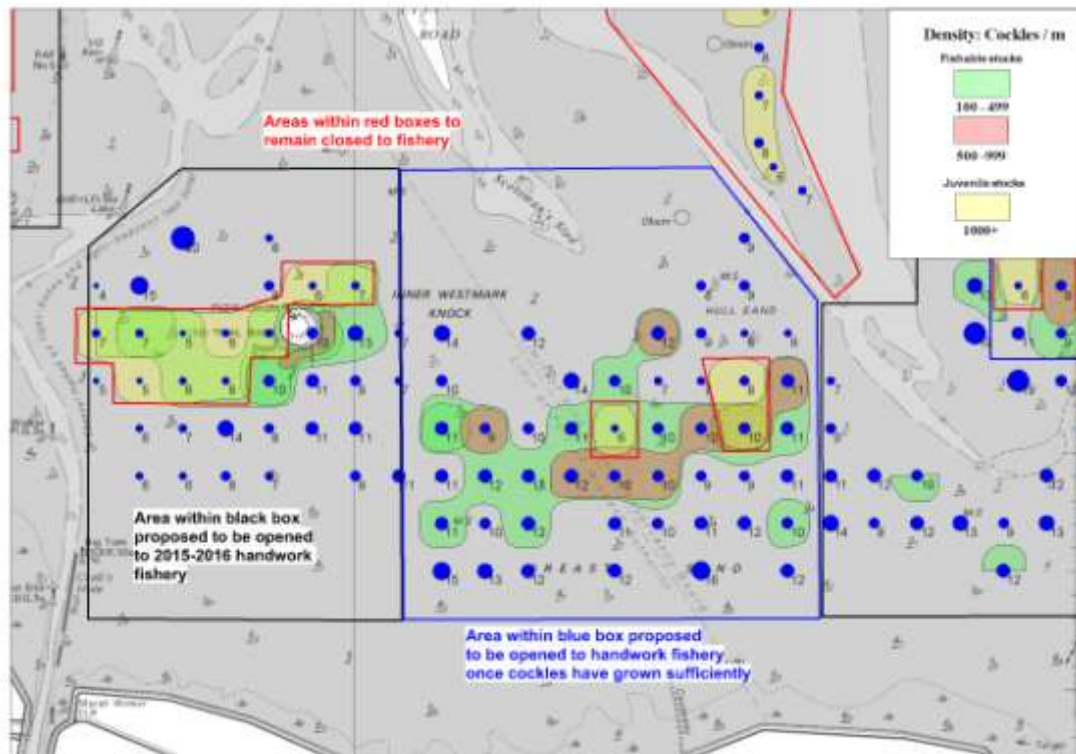


Figure 7 – Chart showing proposed open and closed areas on IWMK and the West Breast sands

The Inner Westmark Knock sand supports an area of Yr-1 cockles that were protected from the fishery last year. This sand, however, has attracted a further spatfall during 2015 that will need protecting. As the chart above shows, there is a high density patch of sizeable cockles close to the Trial Bank. It is recommended that, in order to support the viability of local industry, this area should be opened

The western part of the Breast also supports high densities of Yr-1 cockles that are present in fishable densities. These are slower growing, however, and at the time of the survey were not of fishable size. The officers recommend that the stocks within this area are opened later in the season once they have been assessed to have reached fishable size.

East Breast, Thief, Daseley's, Pandora, Peter Black

The Thief sand was found to support dense patches of Yr-0 juvenile cockles and very few adults. Officers propose that the Thief sand remains closed to this year's fishery.

The other sands highlighted in figure 8 support mixtures of fishable and Yr-0 stocks. Officers propose the area incorporating the East Breast, Daseley's, Pandora and Peter Black are opened to the fishery, but closures are placed around high densities of Yr-0 juveniles. Additionally, there is an area on Daseley's that supports high densities of Yr-1 cockles. At the time of the survey these had not reached a fishable size. Officers propose this area is opened later in the season once they have been assessed to have grown sufficiently.

The grab samples identified small patches on Pandora and the East Breast sands that supported high densities of sizeable cockles. Both of these patches fall within the proposed open areas, but as each patch only covered a single grab station, it is difficult to assess from the survey how much of a fishery they could support.

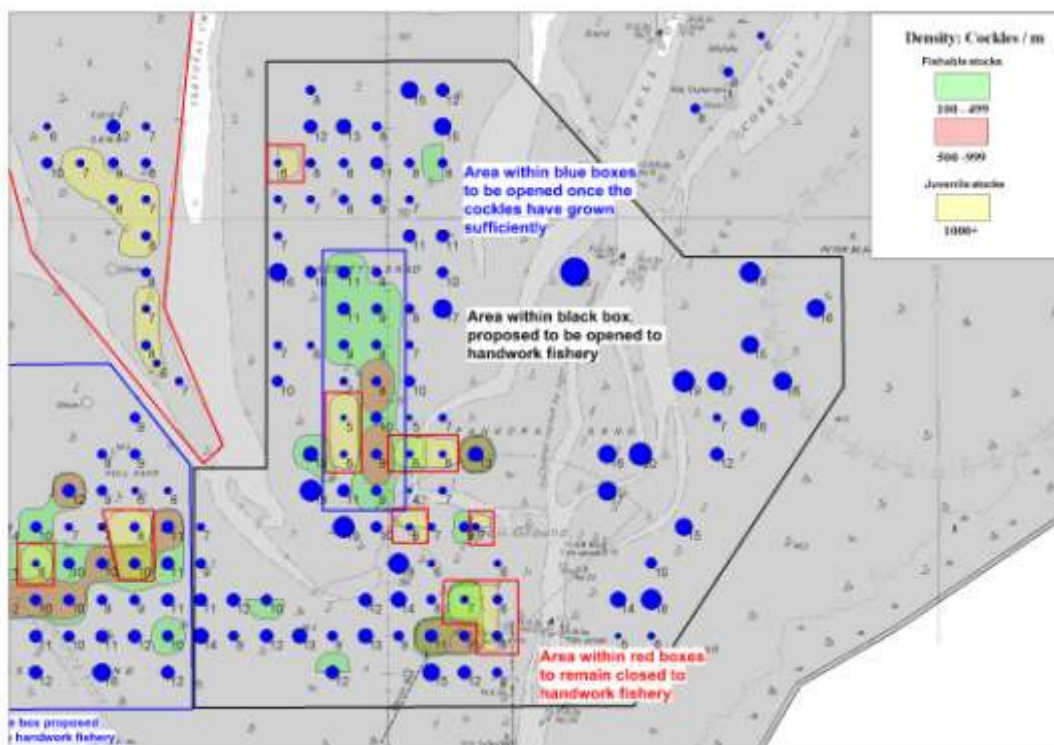


Figure 8 – Chart showing proposed open and closed areas on the East Breast, Thief, Daseley's, Pandora and Peter Black sands

Table 2 – Summary of the management measures proposed for each bed for the 2015-2016 handwork cockle fishery

Bed	Proposed management measures for 2015-2016 fishery
Butterwick	Closed except for highlighted open area
Wrangle	Closed
Friskney	Closed
Roger/Toft	Closed except for highlighted open area
Black Buoy/Dills	Open except for highlighted closed areas
Herring Hill	Open except for highlighted closed areas
Mare Tail	Open except for highlighted closed areas
Gat	Open except for highlighted closed areas
Holbeach	Open except for highlighted closed areas
IWMK	Open except for highlighted closed areas
West Breast	Open except for highlighted closed areas
East Breast	Closed until stocks have grown sufficiently to be fished
Thief	Closed
Daseley's	Parts of the bed opened except for highlighted closed areas. Part of the bed closed until stocks have grown sufficiently to be fished
Pandora	Open except for highlighted closed areas
Peter Black	Open

Due to the resolution of the sampling regime used during the surveys, in which samples are collected 350m apart, officers recognise that small patches of high density fishable cockles can remain undetected between survey stations. In years when stock levels are sufficient to open all of the beds, these omissions do not impact on the industry's ability to fish these stocks. This year, however, when only limited areas have been opened, officers would like to work with the industry to ensure that if significant fishing opportunities are found in closed areas that have not been identified in the surveys, such areas can be re-assessed and potentially opened. Note, this does not include the Yr-0 cockle stocks in Wrangle and Friskney, which as mentioned above will contribute towards next year's fishery.

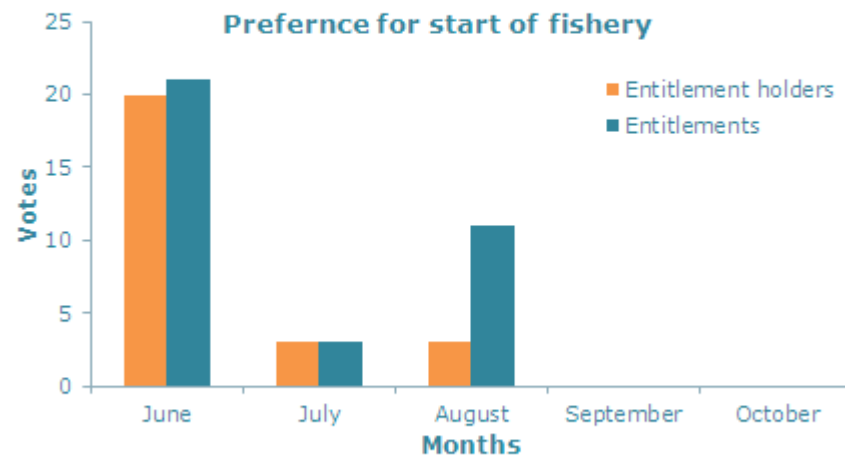
APPENDIX 2

Action Item 9

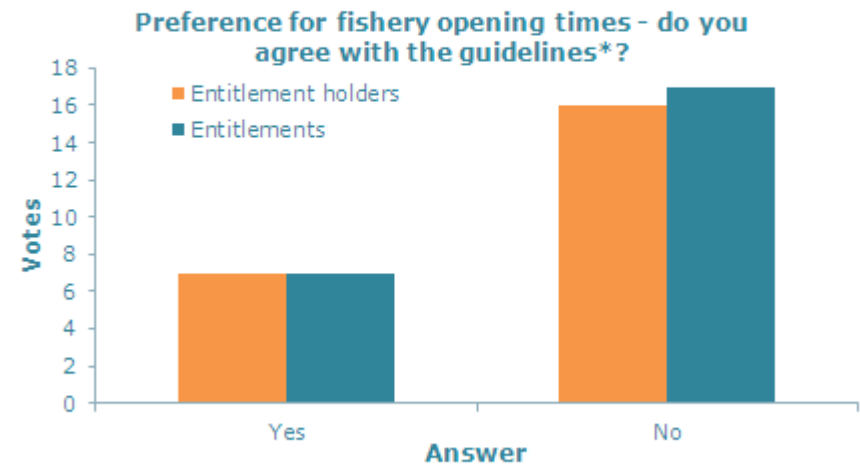
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3 June 2015

Consultation results

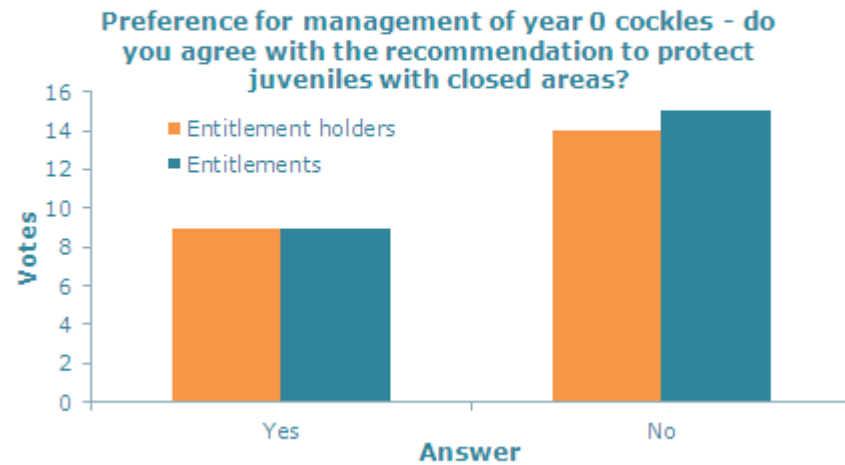


Consultation results

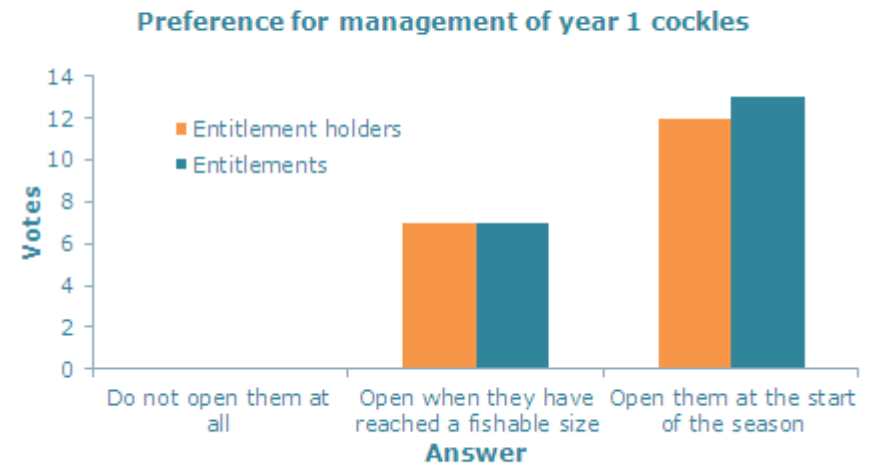


N.B. * Guidelines for opening times for the 2015 cockle fishery are as follows; Minimum 6.4m tide height, open four days per week, open weekdays (i.e. Monday to Friday) and open on Mondays to Thursdays where possible.

Consultation results



Consultation results



Action Item 9

APPENDIX 3

19th Eastern Inshore Fisheries and Conservation Authority meeting

3 June 2015

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	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way	Intensity of effort	Manageable	A hand worked fishery is operated at low 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

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way	Excessive breakage	Negligible	There is no correlation with a hand-worked fishery.
	Displacement	Manageable	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.
	Threat to long term sustainability of stocks	Manageable	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

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
<p>Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way</p>			<p>means. This can be mitigated on beds containing juveniles can be proper use of large mesh cockle net. There is a method of agitating the cockles and mud-sand in the cockle net which works the sediment and small cockles out of the meshes if done properly.</p> <p>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 both 2013 and 2014, 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</p>

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
<p>Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way</p>			<p>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> <p>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.</p>

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
<p>Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way</p>			<p>The health of the benthic community in the sediment co-existing with the cockles is important and can be adversely affected particularly by dredging but also to a much lesser degree by prop washing. The benthic community comprises bacteria, fungi, benthic algae, microscopic and macroscopic invertebrates. The benthic sediments should also contain some organic detritus and minerals which feed the fungi and bacteria which feed the benthic algae and microscopic invertebrates. The cockles consume suspended organic material, benthic algae and pelagic algae. Cockles produce more organic detritus for the bottom of the foodchain. Oxygenation (from cockles' burrowing activities) and pH are likely important because these influence the species balance</p>

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
Seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way			and hence value (to cockles) of the benthic bacteria etc. (same as in human stomach). Disturbance into the oxic layer will have some effect with short recovery time (weeks, because it is in the range of winter storms). Deeper disturbance into anoxic layers, typical of cockle suction dredging in The Wash, will affect anaerobic bacteria (abundance and species balance), pH (released sulphur derivatives), and deeply stored organic material will have a profound negative effect on productivity at the base of the foodchain, with long (multiple years) recovery time.
	Trans-shipping	Manageable	The risk in a hand-worked fishery evident but less likely and therefore manageable.

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		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	Disturbance	Sediment	High	<p>Disturbance to sediments that support other flora and fauna within the Wash European Marine site is a key concern.</p> <p>Hand worked (augmented by prop washing) method introduces significant risk if conducted badly.</p> <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</p>

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		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>				be noted that in 2014 the behaviours in the fishery were encouraging with no instances of excessive prop washing causing damage to the beds.
		Birds	Evident	There is the potential for a hand-worked fishery to have the greater disturbance effect on birds owing to the nature and duration of the fishing activity. However, this can be mitigated by the use of closed areas and appropriate enforcement presence and monitoring.
		Seals	Manageable	A hand-worked fishery if coincident with the locations of seal populations will have an effect but this can be mitigated by the use of closed areas
		Mussels	Negligible	Hand-working will have a negligible impact upon adjacent

Liability of introduction of risk				
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties		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>				mussel beds.
	Excessive breakage		Negligible	Hand-working will not introduce a risk of excessive breakage.
	Intensity of effort		Manageable	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
	Breach of fishing gear requirements		Manageable	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 will require

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	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>			further experimentation before the overall risk is able to be reviewed.
	Fishing in prohibited areas	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.</p>
	Displacement		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

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
		Manageable	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	Negligible	A hand-worked fishery can be pursued by all.
	Socio-Economic	Manageable	A hand worked fishery provides for sustained employment opportunities and represents the preference of the majority with the fishery.
	Corporate profitability	Manageable	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

Liability of introduction of risk			
Marine and Coastal Access Act 2009 duty	Risk to delivery of MaCAA duties	Hand-work	Comment
Seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district			associated with it.
	District wide impact	Manageable	A hand-worked fishery gives greater latitude to manage district wide duties in tandem with Wash based activity.
	Regulatory interference	Manageable	For a hand worked fishery as routine presence and monitoring will be sufficient to assess compliance.

Appendix 4

Action item 9

19th Eastern Inshore Fisheries and Conservation Authority meeting

3 June 2015

WFO Cockle Fishery 2014 – Industry feedback

The feedback attached below is included to provide detail to Authority members and to expose the differing view from different sectors of the Wash based fishing community.

Cockles

Most fishermen would agree last season was the worst for many years. Cockles were generally small and of poor quality, and for the first time ever the modest TAC has still not been taken, and most likely will not be taken before the fishery closes. This group needs to see this fishery reinstated to its former status as one of the premier inshore fisheries in the UK. If the right cockles are taken at the right time, then this fishery could easily double in value. The perceived problems are as follows:

- 1) No economic access to adult cockles.
- 2) Two ton quota is increasingly not viable for larger vessels. (Weak euro and small cockles compounds the problem).
- 3) Most beds not eligible for dredging because despite the committee's wishes, growth rates are not taken into account. *- how can we help?*
- 4) Closed areas of juvenile stocks are included in bed calculations to ascertain whether beds are eligible for dredging. *- balance around beds juvenile*
- 5) EIFCA claims they cannot police a dredging fishery without withdrawing resources from other fisheries.
- 6) Lack of policing of illegal fishing of closed areas, and fishing of bulk bags.
- 7) TAC is mainly taken up of juvenile stocks, and with adult stocks prone to 'die off' means the fishery is losing stocks at more than the 33% which is generally deemed to keep cockle fisheries sustainable.
- 8) Recent studies prove 'blowing out' is more damaging to the grounds than EIFCA officers have previously claimed.
- 9) Dredging v blowing always decided on a vote. No vote to be taken before all restrictions are known.
- 10) No allowance for waste.

Possible solutions

- 1) Allow dredging. Only viable way to fish most adult stocks.
- 2) Increase daily quota or go to individual, non-transferable quotas. (49% wanted this)
- 3) If growth rates not applied, then a size limit must be introduced. Most cockles are sizeable at time of fishing, but probably not at time of survey. Or delay start of season so survey can be carried out later in the year to reflect more accurately what stocks are present.
- 4) Juvenile closed areas should be taken out of any calculations as they are not part of fishery. Can EIFCA explain why this is not done as a matter of course?
- 5) Claims that a dredge fishery cannot take place without effecting the policing of other fisheries. Whilst not policing illegal fishing of closed areas and fishing of bulk bags is a classic case of double standards and a deliberate attempt to influence the committee against dredging. Last year Kent & Essex held a dredged fishery for 40 vessels on less resources than EIFCA. Why did EIFCA not send officers down to Kent & Essex to learn how they managed?
- 6) Set conditions so adult stocks can be targeted.
- 7) Natural England is concerned ground that has been subjected to 'blowing out' takes over six months to recover. EIFCA should be as concerned. No reported die offs of adult stocks on the Le Strange fishery or the Thames fishery. Both are exclusively dredged fisheries, one of which is situated in The Wash.
- 8) No sector should be penalised. EIFCA should recognise the fact that all sectors should be allowed to operate profitably.
- 9) In the past we were allowed 10%.



11/2

BOSTON & DIST.

FISHERMEN'S



ASSOCIATION

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CHAIRMAN: Ken Bagley
Tel: 01205 360288

VICE-CHAIRMAN: David Hardstaff
Tel: 01205 356138

9 April 2015

Dear Sir

Mr Haslam

Re: 2014 Handworked Cockle Season

The Boston Fishermen's Association members would once again like to congratulate and thank Eastern IFCA for a successful handworked cockle season during 2014.

Although the price paid for cockles during 2014 was a little lower than in previous years, the steadiness of the season produced a far longer open cockle fishery thus giving most fishermen the opportunity to earn a realistic income almost through to Christmas time. The cockles on the beds were able to continue growing during the course of the fishery and the seabed damage caused by mechanical dredging was once again avoided thus helping to ensure a sustainable fishery for future seasons. The amount of actual days at sea was good for our industry as well as for the fishery in general and the 2 tonne per day quota once again proved to be financially viable as was shown by the amount of vessels that took part in the 2014 fishery season. Participants in the 2014 cockle fishery were given written notice of planned dates of fishery closures so that most maintenance and repair tasks could be carried out without fear of losing valuable fishing days and the need to take risks in order to frantically ensure you were able to 'fish' each day in case the fishery suddenly ended was eliminated. The combination of the 2 tonne quota multiplied by the amount of boats expected to partake of the fishery divided into the TAC for the 2014 cockle season enabled Eastern IFCA to be able to assure people that the fishery would be open for the listed number of dates they provided thus giving everyone the reassurance of stability for the season.

We would like to reiterate our strong belief that harvesting cockles by handworking methods is the key behind the positive recovery rate of the cockle beds seen over the previous few years as there is much less disturbance to the natural habit of the cockle when harvesting by

this method as opposed to the merciless devastation we have seen caused by mechanical dredging in the past.

It is our true and firm belief that a handworked cockle fishery continues to be the way forward for the survival of both the fishery itself and for the industry in this area as a whole. We can no longer justify the pillaging of a fishery in order to produce large profits in as little time as possible in order to move onto the next species, it has been proven to have a negative effect on both the fishery and the majority of the industry in The Wash. A measured and now proven effective handworked cockle fishery is the fairest and most sustainable option in order to continue producing a viable cockle fishery for all in The Wash whilst also preserving stocks to meet the needs of the wildlife habitat and ensuring sufficient stocks for future years' growth.

We the undersigned all strongly believe that a Handworked Cockle Fishery should continue to be the only permitted method of harvesting cockles in The Wash in future years.

Yours faithfully *IC Bagley*

Ken Bagley, Lucy Marie *IC Bagley*

Roy Bagley, Sovereign *R Bagley*

Alan Bagley, Intrepid *A Bagley*

Shane Bagley, Lili Mae *Shane Bagley*

Richard Bagley, Cally Seranne *R Bagley*

Alan Brewster, Kathryn James *A. A. Brewster*

N Brewster, Seven Sisters *N. E. Brewster*

Kevin Brewster, Tracey Elaine *K. Brewster*

Roy Brewster, Vicky Ellen *R. A. Brewster*

Wayne Brewster, Patricia B *Wayne Brewster*

Kevin Dixon, Tricia B

K Dixon

Lee Doughty, Jaime Louise

L Doughty

James Geelhoed, Five Js

J Geelhoed

Mick Kettleboro, Maggie S

M Kettleboro

Jamie Lee, Abigail

J Lee

Lee Porter, Little Leer

Ben Ralph, Merlin

Pat Ralph, Our Lady

Dave Ruck, Medway

Kevin Smith, Boy Steven

K Smith

Roy Yarnell, Christine Claire

R Yarnell

Owing to spaces not signed the people missing are on holiday and can not get to sign but are in agreement with the rest of the association.

K Ruck