



17th EIFCA Meeting

To be held at:

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

28th January 2015

1030 hours

Meeting: 17th Eastern IFCA Meeting
Date: 28 January 2015
Time: 10:30hrs
Venue: The Boathouse Business Centre,
1 Harbour Square, Nene Parade,
Wisbech, Cambridgeshire, PE13 3BH



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

Agenda

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

Action items

- 4 To receive and approve as a true record, minutes of the 16th Eastern IFCA Meeting, held on 29 October 2014 - *Chair*
- 5 Matters arising (including actions from last meeting) - *CEO*
- 6 To receive a report to consider Health and Safety risks and mitigation - *CEO*
- 7 Meeting of the Regulatory and Compliance Sub-Committee 25 Nov 14 - *DCEO*
- 8 Meeting of the Finance and Personnel Sub-Committee 16 Jan 15 - *Hd Fin / Hd HR / DCEO*
- 9 Provisional budget for 2015/16 and to note the provisional forecast for 2016/19 - *Hd Fin*
- 10 Payments made and monies received during the period Oct 14 to Jan 15 - *Hd Fin*
- 11 Quarterly Management Accounts - *Hd Fin*
- 12 Mussel Fishery 2015 - *SRO/CEO*
- 13 Mussel Regeneration Project - *SRO*
- 14 Wash Lay applications update - *Project Officer*
- 15 Bass management - *CEO*
- 16 Whelk management - *DCEO*
- 17 Revision of WFO licence tolls in line with inflation for the 2015-2016 financial year. *Hd Fin*
- 18 Stakeholder community meeting report - *CEO*
- 19 "Recording your Inshore Fishery Activity" presentation - *Ewen Bell (Cefas)*

Information items

- 20 Quarterly progress against Annual Plans - *CEO*
- 21 Marine Protection quarterly reports - *DCEO*
- 22 Marine Environment Quarterly Reports:
 - a. Senior Research Officer
 - b. Senior Marine Environment Officer

23 Update of HR activity – Head of HR

Any other business

24 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.

i. EIFCA/Seasearch East Diving Memorandum of Understanding - *CEO*

P J Haslam
Chief Executive Officer
13 January 2015

16th 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 October 2014 at 1030 hours.

Members Present:

Cllr Hilary Cox	Chair	Norfolk County Council
Cllr Tony Turner MBE JP	Vice-Chair	Lincolnshire County Council
Shane Bagley		MMO Appointee
Peter Barham		MMO Appointee
Stephen Bolt		MMO Appointee
Roy Brewster		MMO Appointee
Connor Donnelly		Natural England representative
Cllr Richard Fairman		Lincolnshire County Council
Jacqueline Foy		MMO Representative
Cllr Tony Goldson		Suffolk County Council
Roger Handford		Environment Agency
representative		
Dr Ian Hirst		Environment Agency
representative		
Neil Lake		MMO Appointee
Cllr Keith Patience		Suffolk County Council
Tom Pinborough		MMO Appointee
Rob Spray		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
Julian Gregory	Deputy Chief Executive Officer
(DCEO)	
Stephen Thompson	Research Officer
Ady Woods	IFCO

Other Bodies Represented:

Emma Thorpe	Natural England
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Minute Taker:

Jodi Hammond

EIFCA14/86 Item 1: Welcome by Chair

The Chair began the meeting by welcoming Cllr Patience who would be attending the meetings until such time as Cllr Byatt was back from sickness absence. Dr Ian Hirst was also welcomed to the meeting.

EIFCA14/87 Item 2: Apologies for Absence

Apologies for absence were received from: Cllrs Baker & Wilkinson (Norfolk County Council), Mr Stipetic (MMO Representative), and Messrs Garnett, Morgan, and Vanstaen (MMO Appointees).

Members considered the reasons given for not being able to attend and formally agreed to accept the apologies.

It was noted that Jacqueline Foy would act at MMO Representative in the absence of Mr Stipetic.

It was agreed to accept the Apologies for Absence

EIFCA14/88 Item 3: Declarations of Members Interest

No declarations of interest were recorded.

EIFCA14/89 Item 4: Minutes of the 15th EIFCA Meeting, held on 29th October 2014

Members agreed to sign the minutes as a true record of proceedings.

Proposed: Councillor Goldson

Seconded: Councillor Fairman

All Agreed

EIFCA14/90 Item 5: Matters Arising

14/72 ANNUAL REPORT – Members were advised the report had been published and a copy had been received by Defra.

14/74 LAYS IN EXCESS OF 10 HECTARES – As instructed at the previous meeting the Minister had been written to, to seek retrospective consent for lays in excess of 10 hectares.

The CEO advised as a result of The Openness of Local Government Bodies Regulations 2014 meetings could now be recorded, filmed, or live blogged whilst in progress. The EIFCA Constitution had been amended accordingly.

Cllr Goldson advised that within SCC any member who did not wish to be visibly recorded did not have to be, the CEO had been advised otherwise but agreed to enquire further.

EIFCA14/91 Item 6: Replacement of Environment Agency Additional Member

The CEO advised that Mr Handford was no longer in a position to be the EA Representative and Dr Ian Hirst had been put forward by the EA as his replacement.

Members agreed to accept Dr Hirst as EA Representative on the Authority, thanked Mr Handford for the vital role he has played as a member of the Authority and wished him luck for the future.

EIFCA14/92 Item 7: Health & Safety

An update on H&S issues was given by the CEO. Since the last meeting there had been 5 incidents. Four of which required no further action but one on-board a fast RIB had resulted in an internal investigation which was being reviewed by NCC. The outcome is likely to identify improvements to be made to the safe system of work including upgrading FPV PISCES with additional seating to accommodate 4 crew members.

The CEO advised that despite efforts being made to ensure robust H&S practices were in operation within EIFCA there were still some practices which were not quite at the level required. Consequently an NCC officer had been to sea to conduct an audit of standards and practices and would forward a report identifying areas requiring improvement. A similar process would also be carried out within the office.

Mr Barham questioned the wording used within the H&S risk register and advised he would like to see evidence of where the risk of staff stress through exposure to unacceptable behaviour by stakeholders had been addressed through the corporate communication strategy to engage stakeholders.

Members agreed to receive the report.

EIFCA14/93 Item 8: Finance and Personnel Sub-committee meeting held 15th October 2014

It was noted that under HR matters the results of the Best Employee Engagement Survey 2014 showed an improvement on those when the survey was carried out in 2012. Cllr Goldson felt this was a good reflection of how EIFCA was moving forward.

Members Agreed to note the report

EIFCA14/94 Item 9: Marine Protected Areas Sub-committee meeting held 15th October 2014

Members were advised that the Lay lease had been reviewed with suggested amendments being discussed and agreed by the Sub-committee. Amendments included dealing with movement of seed in and out of the district, limiting stocking density, marking out of lays and an appropriate process to account for the death of a lay holder.

Nine lay applications were also considered. Whilst some were provisionally accepted dependant on the presence of seed/brood at the time of marking out, others had been deferred until the Minister had responded regarding the allocation of lays in excess of 10 hectares and/or the current settlement of seed cockle was reviewed during the spring surveys.

Members Agreed to note the decisions made by the MPA sub-committee

EIFCA14/95 Item 10: Payments made and monies received during the period Jul 2014 to September 2014.

Members were provided with an overview of where money had been spent during this period and funds received. It was noted the majority of expenditure was on salaries, and additional income was recorded due to the sale of EIFCA vehicles.

Members Resolved to approve payments of £450,459 and receipts of £46,620 during the period 10th July – 15th October 2014.

Proposed: Stephen Worrall

Seconded: Connor Donnelly

All Agreed

EIFCA14/96 Item 11: Quarterly Management Accounts

Members were advised that at the end of the second quarter there were savings of approximately £89,000 compared to the budget. This was largely due to less salaries than anticipated being paid out. As the staff were now running at full complement it was unlikely this saving would continue. However it was anticipated that at the end of the year there would probably be some saving, subject to unexpected expenditure being incurred.

The method use for the sale of EIFCA vehicles was questioned. The CEO advised that three had been sold to a local dealer and the 4x4 had been sold on a local auction site. All had received competitive prices.

Members Resolved to formally note the Quarterly Management Accounts.

EIFCA14/97 Item 12: Bass Stock Management

The CEO advised members that whilst Bass had always been an important species to the RSA Community they were becoming increasingly valuable to the commercial sector which was putting a lot of pressure on stocks.

Current ICES advice indicated that to keep stocks at a sustainable level it was necessary to reduce the amount fished by 80%.

Members had been provided with a comprehensive paper on legislation applicable to the species and potential management methods. It was noted there was a rumour that EU and Defra may be planning to put in place measures at the international and national levels by the end of the year but this was yet to be confirmed and the CEO believed EIFCA should be proactive and take local steps within its power to protect the species.

It was noted that the focal point for bass within the EIFCA district was in the estuaries in Suffolk and around Sizewell but they had also been noted running throughout the district. Members also discussed the variance between sea bass and river

bass, as well as the numbers which were farmed and imported, the increasing number being farmed around the UK and the increase in landings which was reducing the adult bass stock.

Various means of improving stock levels such as increased MLS and the introduction of closed nursery areas were considered as was the level of stock removed by the commercial sector compared to the RSA sector, as well as the number taken by seals.

It was apparent there was not sufficient data to provide all the answers but Mr Barham was sure there should be sufficient data available to prepare an Impact Assessment, he also advised looking at catch per unit effort (CPUE) compared to catch and natural predation. He believed Option 4 (as presented in the paper) was the best option provided there were measures in place to monitor the impact of introducing the option to check whether it had an effect.

There was also discussion about the methods of fishing as it is not only commercial fishermen and anglers who take the stock but also other methods of fishing which land the species as a bycatch.

Members considered the recommendations provided in the paper and considered that whilst Option 5 would be the only way to ensure a reduction in landing of 80% it was not an ideal solution and could have ramifications for local businesses therefore Option 4 would be the best step to take in the first instance, with the proviso that if necessary the fishery could be shut if there was no improvement.

Members Agreed to note that bass stocks at a national and international level are under significant pressure and at risk of collapse, they also agreed that the evidence presented drove a need to take local management action.

Members Resolved to introduce incremental regional Bass management measures as set out at option 4 in the papers. It was Agreed that this would be an additional output over and above the priorities stated in the Annual Plan 2014-15 which may cause a re-direction of resources with the attendant impact on previously agreed outputs.

Proposed: Cllr Goldson

Seconded: Mr Worrall

All Agreed

EIFCA14/98 Item 13: Horseshoe Point cockle fishery

As part of the transition to EIFCA, the Authority inherited the Horseshoe Point cockle beds, and the byelaws and permitting scheme applicable to them. In recent years there has been insufficient stock to warrant the opening of a fishery, consequently the water and shellfish quality for this area had not been sampled or classified.

Having conducted cockle surveys this year the Research Team found stock which would permit a fishery amounting to 600t if it was opened in spring 2015, providing the local authority could

have the water classification in place. Due to the lack of access by vessel this would be a handwork only fishery.

Members noted this paper was provided as a matter of information, however, Mr Barham advised that he believed under marine planning any unused or new fishery needed an Environmental Impact Assessment and had to be treated as a new plan or project. The CEO advised that as standard practice it would be subject to a test of likely significance and a HRA, however he would investigate further.

Mr Donnelly advised that he also thought it would be treated as a plan or project and advised there would be a need to discuss management controls such as how much stock would be taken etc.

The CEO advised that it was the intention to provide a fishing opportunity if possible but all checks and balances would be gone through prior to opening a fishery.

Mr Lake questioned the permitting process and whether there would be limitations on the number of permits issued. The DCEO was unsure whether EIFCA would have the ability to limit the number of permits. Mr Lake felt this was a cause for concern as he believed there would be large numbers from the west coast who would wish to take part in the fishery.

Members Agreed to note the report

EIFCA14/99 Item 14: Renewable Energy development Commercial Fisheries Working Groups

Members were advised of the role being played by the CEO at Commercial Fishing Working Groups which were set up to ensure co-existence between the two industrial sectors.

It was noted that the CEO had taken on the role of Chair at these meetings as he was completely independent and had nothing to gain or lose whatever the outcome. To a certain extent this had ensured meetings had moved along smoothly. However, this was only the case when the meetings were held in appropriate venues and were publicly advertised and minuted, providing a transparent basis for any business conducted including the formulation of mitigation measures where disruption to fishing practice is proven. The CEO advised that he would be reluctant to continue acting in the capacity of Chair should the basic rules of the meeting be ignored and no evidence base was being applied to base decisions on.

Mr Barham believed the exploitation of the seabed was only going to increase and he fully supported the CEO in chairing these meetings, however he felt it was important to have the option to withdraw in order to maintain the credibility of the Authority, equally he advised the CEO needed to make it clear when he took on the role what his terms of reference were.

Members Resolved that it was appropriate for EIFCA officers to take part in Commercial Fishery Working Groups and that the CEO be delegated the authority to accept any invitations to chair such meetings if by accepting the invitation the statutory duties of the Authority were furthered. It was also Resolved that the CEO could withdraw from any position of Chair of a CFWG

if there was evident risk that the impartiality and/or reputation of the Authority would be brought to disrepute.

Proposed: Mr Barham

Seconded: Cllr Patience

All Agreed

Mr Bagley questioned whether it was possible to have one large chart with all the dredging, windfarm sites etc, in the area displayed on it. The CEO agreed to take such a chart to the next meeting.

EIFCA14/100 Item 15: Calendar of Meetings to October 2015

Members were provided with a list of proposed meeting dates for 2015.

Members Agreed to the meeting dates for 2015 as set out.

EIFCA14/101 Item 16: Common Fisheries Policy (CFP) Reform Update

The DCEO provided members with a brief update on changes being made to the Common Fisheries Policy. It was stated that the original CFP having failed in some areas which had consequences such as declining fish stocks.

The new CFP had been applicable from 1st Jan 2014 and would radically change the fishing industry.

Members noted there was nothing immediate to concern IFCA's but they would be kept informed of any progress which may mean additional work streams for EIFCA.

EIFCA14/102 Item 17: Quarterly Plans again Annual Plans

The CEO advised most work streams were progressing on schedule with some items having been completed and signed off.

- The Mussel Regeneration Project was underway with the cockle shell having been laid down which had attracted 16 times more spat than the control area, hopefully this would be sustained throughout the winter.
- The RSA strategy had been published, despite contacting the district councils there had been no response, however the CEO was ready to provide advice as soon as it was requested.
- The Lay Application process was progressing in accordance with the timetable.
- Community engagement projects for the year were mostly complete with one school visit pending.
- Community Engagement meetings were organised for November with the Wells and Suffolk events utilising the office based trailer.

Members Agreed to note the report

EIFCA14/103 Item 18: Marine Protection Quarterly Reports

The DCEO advised there had been some confusion over the accuracy of data and reminded members that the area officers only record estimated landings not definitive figures. It was hoped that in the future it would be possible to provide more robust landing data.

Members Agreed to note the report

EIFCA14/104 Item 19: Marine Environment Quarterly Reports

Members noted the content of the report and acknowledged that the majority of the work was focused on the management of EMS.

Members Agreed to note the report

EIFCA14/105 Item 20: Update of HR Activity

The Head of HR gave a brief resumé of the main HR activities which had taken place during the quarter. It was also noted that upcoming activities would include IIP accreditation and a development day for line managers.

Members Agreed to note the report

EIFCA14/106 Item 21: Community Engagement Meeting Dates

Members noted the meeting dates and Agreed to attend the meetings where possible.

EIFCA14/107 Any Other Business

SEA GOING ASSET REVIEW: The DCEO provided members with a paper updating members on the review of seagoing assets. They were reminded that in the past they had agreed to the use of Cabin RHIBs as enforcement vessels, which had brought about the purchase of FPV JOHN ALLEN. This vessel had been operating for 16 months during which time it had been found fit for purpose and would be retained as an enforcement vessel. The F&P sub-committee had agreed to a number of upgrades for this vessel and members were being asked to agree to the use of Redbay Boats as a sole supplier for these upgrades. The reason behind this request was based on continuity of quality of fixtures and fittings.

In addition to this members were also asked to agree to the Vessel Procurement Panel (Chair of the Authority, Chair of F&P, CEO and DCEO) being delegated powers to continue to oversee the purchase of a second cabin RHIB. The tender process for this RIB was already underway.

Councillor Fairman expressed concern about the tender process if Redbay Boats were to tender, as they would already have the design for the original vessel and would have an outside advantage over other tenders. The DCEO advised that EU legislation process would have to be met so Redbay would not be at an advantage, he also advised the next vessel would differ to the current RHIB. Councillor Fairman remained unconvinced and questioned whether the criteria for the new vessel came within a design already on Redbays books. The CEO advised that Redbay subsequent to the Authority's initial purchase, had built a bespoke enforcement vessel for the Northern Ireland fisheries but that vessel was in response to a bespoke capability requirement. There was no evidence to suggest that Redbay boats enjoyed an advantage over other bidders.

Councillor Turner questioned whether the origin of the components of the vessel would be investigated to see if they were UK or European. He advised the LCC tried to legally ensure the majority of their suppliers were based in Lincolnshire. The DCEO advised this was the intention. Mr Pinborough emphasised the need to be clear and transparent with everyone being given the same opportunity.

Members Resolved that Redbay Boats be engaged on a sole supplier basis for upgrade works.

Proposed: Cllr Goldson

Seconded: Mr Barham

All Agreed

Members Resolved that the Vessel Procurement Panel would oversee the procurement of the new enforcement vessel, approve the selection of a bid to supply the vessel and agree the contract with the successful bidder.

Proposed: Mr Donnelly

Seconded: Mr Worrall

All Agreed

There being no other business the meeting closed at 1250 hours.

Vision

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Action Item 6

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Health and Safety risks and mitigation

Report by: P J Haslam, CEO

Purpose of report

The purpose of this report is to update members on health and safety risks and associated mitigation introduced to manage liabilities.

Recommendations

It is recommended that members:

- **Note the contents of this report**

Background

H&S law mandates through the general duty of employers to their employees that it shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees¹.

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

Incidents

During the last reporting period the following incidents have occurred:

- An officer previously reported (Jul 14) as suffering with neck and shoulder pain has been continuously monitored in order to manage the condition. Adjustments to work equipment have been made and advice and guidance about display screen equipment protocols and posture at the desk has been given. The employee's GP has suggested that an external assessor be engaged to provide expert opinion which has been noted. As an interim step, the officer has been referred to an occupational health specialist to provide a second opinion regarding the most appropriate course of remedial action. A Norfolk County Council H&S specialist has been consulted throughout the management of this issue.

¹ HSAW Act 1974 c. 37 Part I General duties Section 2

- An officer who appeared particularly fatigued by his duties was assessed by his line manager and a General Practitioner to assess whether the fatigue was caused by a medical condition. The consultation did not identify any particular medical cause but made observations regarding lifestyle and healthy living. The officer has been made aware of the findings and has undertaken to implement the recommendations of the GP. The officer is considered fit to continue with his duties.

Risks

Members would wish to be aware of the H & S risks at Appendix 1

Health and Safety culture

In order to ensure that the revised H&S culture has been accepted and embedded at all levels within the Authority, a H&S officer from Norfolk County Council was engaged to accompany a vessel at sea to gauge adherence to policy. The results of the review are at Appendix 2. The Executive review of all H&S policies to ensure compliance with the legislation is ongoing.

Conclusion

Members can be re-assured that health and safety matters are given appropriate consideration by the Executive and management teams.

Appendix:

1. Eastern IFCA Health and Safety risks Jan 2015

Eastern IFCA Health and Safety risks January 2015

Risk	Intervention	Residual Risk	Risk rating*
Unreported incidents/unilateral decisions with little regard for safe working practices.	<ul style="list-style-type: none"> • Leadership • NCC H&S officer led review of policy and procedure • Training • Equipment • Management systems to capture incidents • Routine agenda items at all meetings at all levels of Authority 	<ul style="list-style-type: none"> • Injury to personnel as a result of failure to acknowledge or adhere to H&S direction and guidance 	Treat
Inappropriate conduct of vessels at sea	<ul style="list-style-type: none"> • Leadership • Briefings • Formal training and assessment • Periodic review of performance • Deployment of DCEO in a roving capacity Q1 15. 	<ul style="list-style-type: none"> • Death/injury of personnel through un-seamanlike operation of vessels at sea 	Treat
Material state of Sutton Bridge moorings	<ul style="list-style-type: none"> • Safe systems of work introduced to manage immediate risks including improved lighting. • Officers have driven an acceptance by agents that immediate repair is necessary to alleviate existing H&S issues. 	<ul style="list-style-type: none"> • The material state of the moorings is in decline but firm plans to address safety issues are now in place • Risk of injury to personnel. 	Treat#

	<ul style="list-style-type: none"> • Authorisation received from F&P sub committee to commit capital funds to support Fenland DC and Lincs CC initiative to establish new moorings in Sutton Bridge. • Moorings upgrade project expected to begin in Q2 FY 15/16. 		
Whole Body Vibration	<ul style="list-style-type: none"> • Risk awareness training to manage impacts. • Health monitoring process to be developed. 	<ul style="list-style-type: none"> • Personal injury from boat movement owing to lower resilience as a result of individual physiology 	Treat
Lone working operations	<ul style="list-style-type: none"> • Management scrutiny of any proposal for lone working. • Introduction of electronic support means 	<ul style="list-style-type: none"> • Failure of devices to give requisite support. • Personnel interventions render devices unreliable or unworkable. 	Tolerate
Staff injury/long term absence through inappropriate posture at office work stations	<ul style="list-style-type: none"> • Information. • Training. • Risk assessment. • Provision of suitable bespoke equipment where reasonable. • Access to NCC H&S team. 	<ul style="list-style-type: none"> • Individual failure to adhere to guidance 	Tolerate
Staff stress through exposure to unacceptable behaviour stakeholders	<ul style="list-style-type: none"> • Introduction of Unacceptable Behaviour policy 	<ul style="list-style-type: none"> • No change in behaviour of some stakeholders. 	Tolerate

	<ul style="list-style-type: none"> Stakeholder engagement plan and activity delivered in pursuit of corporate communications strategy. Dialogue with Stakeholders to ensure appropriate tone of communications 	<ul style="list-style-type: none"> Long term sickness caused by stakeholder hostility 	
Damage to vehicles, trailers and/or equipment through inappropriate operation.	<ul style="list-style-type: none"> Formal trailer training for unqualified officers Refreshers for those with previous experience Periodic vehicle maintenance checks training 	<ul style="list-style-type: none"> Failure to adhere to training Mechanical failure of vehicle or trailer 	Tolerate

*Risk Rating

High
Medium
Low

#Risk treatment

Treat	- take positive action to mitigate risk.
Tolerate	- acknowledge and actively monitor risk.
Terminate	- risk no longer considered to be material to Eastern IFCA business.
Transfer	- risk is outwith Eastern IFCA ability to treat and is transferred to higher level.

Vision

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Action Item 7

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2014

Report by: Julian Gregory – Deputy CEO

Meeting of the Regulation and Compliance Sub-Committee 25th November 2014

Purpose of report

To inform members of the key outputs and decisions from the Regulation and Compliance sub-committee held on 25th November 2014.

Recommendations

Members are asked to:

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

Byelaw Review / Regulation & Compliance Strategy

Members considered and approved a new and more holistic approach to fisheries sustainability and conservation issues within Eastern IFCA's district, involving an evidence based approach to introducing and revising management measures on a prioritised basis. The new approach will ensure that resources are put to the highest priorities and will be forward looking as opposed to reviewing legacy byelaws in isolation, which could lead to emerging issues (for which there is no current regulation) being overlooked. It will also provide a business model that will sustain into the future. The steps included in this approach are outlined below:

Regulation and Compliance Strategy

In order to effectively review existing regulation, it is important to clarify how Eastern IFCA proposes to regulate in the future. The principles set out therein also provide a framework to assess the existing regulatory framework. The strategy also sets out how it will be implemented tactically, which includes an Enforcement Policy.

Strategic Assessment

A comprehensive risk assessment of all fisheries and Marine Protected Areas within the district will be an annual exercise with six month interim reviews if necessary. It will combine fisheries data and other evidence to identify fisheries and MPAs that require management measures or changes in management measures and will list them for action in order of priority.

Develop Management Measures

Priority issues identified in the Strategic Assessment will be addressed and appropriate management developed to ensure sustainable and environmentally compatible exploitation of fisheries.

Review Legacy Byelaws

This will be a proportionate exercise to effectively 'tidy up' the current suite of byelaws to provide a more coherent set of interim regulatory measures. This is likely to involve the following steps:

- a. Removing most of inherited North Eastern Sea Fisheries Committee (NESFC) byelaws
- b. Removing defunct ESFJC byelaws
- c. Revising ESJFC byelaws that require amendment to make them relevant and effective
- d. Making ESJFC byelaws IFCA byelaws and extending to cover old (NESFC) territory

Members also considered an updated Enforcement Policy, which had been revised to mirror the enforcement options employed by other IFCA's and the MMO. The primary change was to remove the Simple Caution as a sanctions option.

Members Resolved to:

- **Approve** the revised approach for undertaking the byelaw review
- **Approve** the Regulation and Compliance Strategy
- **Approve** the revised Enforcement Policy
- **Note** the content of the Strategic Assessment
- **Agree** that fisheries management would be addressed in line with priorities identified in the Strategic Assessment.

Protected Areas byelaw review process and rights in common risk assessment

During the process to introduce the Protected Areas byelaw Defra officials had asked that a formal process be introduced for reviewing Regulatory Notices and that an assessment of the activities of holders of rights in common be undertaken.

A process model for issuing, reviewing, varying and revoking Regulatory Notices was considered and approved by members.

Members were advised that an initial assessment of holders of rights in common had been undertaken and it had been identified that more in depth work would be required. Members approved the proposal that this work should be undertaken as part of the 2015 Research & Environment Plan.

Potential Bass Management Measures

Members were apprised of the current position in relation to declining bass stocks and the potential requirement to regulate to introduce management measures.

Potential Whelk Management Measures

Members were apprised of the current position in relation to increasing activity in the whelk fishery and the potential requirement to regulate to introduce management measures.

Background Papers

1. Unconfirmed Minutes of the Regulatory & Compliance Sub-Committee Meeting held on 25th November 2014.

Vision

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Action Item 8

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Report by: Philip Haslam, CEO

Meeting of the Finance & Personnel Sub-committees held on 16 January 2015

Purpose of report

To inform members of the key outputs and decisions from the Finance & Personnel Sub-Committee meeting held on 16 January 2015.

Recommendations

Members are recommended to:

- **Note the report.**

HR Matters

The following business was transacted:

- Members agreed to a proposal to review the composition of MMO appointees to make adjustments to ensure compliance with Marine and Coastal Access Act 2009.
- The outcome of the recent Investors in People assessment was briefed to members and, noting the quality of the report and the expenditure involved, members directed the CEO to investigate alternative avenues to provide the same function including liaison with HR specialists at constituent councils.
- Members to resolve to appoint Marine Environment Officer (Consultation) following successful completion of the probationary period.
- It was noted that the review of CEO remuneration package, as advertised part of the recruitment process, had yet to be completed. Similarly, the discontinuation of the Head Marine Environment and Research role and the development of the DCEO role required a review of job specification to reflect revised responsibilities. Members directed the CEO to investigate opportunities and report back to the committee with options to complete the review of CEO/DCEO job specification and close the review of remuneration packages.

- Update of HR activity - an update was given with regard to the progress towards the HR plan to 2015. This report is covered in information item 23 of the statutory meeting papers.

Finance Matters

Members resolved to:

- Approve the Provisional Estimates of Expenditure for the period 1 Apr 2015-31 Mar 2016.
- Note the Preliminary Estimates of Expenditure for the three years to the 31st March 2019
- Approve the application of the public sector pay award above Scale Point 49.
- Approve the revised costs for upgrades to *FPV John Allen*
- Approve expenditure to complete limited office accommodation upgrades in lieu of moving offices

Background Papers

2. Unconfirmed Minutes of the Finance and Personnel Sub-Committee Meeting held on 16th Jan 2015.

Vision

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



Action Item 9

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Provisional budget for 2015/2016 and to note the provisional forecast for 2016/2019

Report by: Andrew Bakewell – Head of Finance

Purpose of report

To set out the Provisional Estimates of Expenditure for the financial year 2015/2016 which have been recommended for approval by the Authority by the Finance and Personnel Sub-Committee (FPSC) at their meeting held on 16th January 2015, and to set out the Provisional Forecast of Estimates for the period 1st April 2016 to 31st March 2019 to be noted by the Authority.

Recommendations

To Resolve, in accordance with Section 101(6) of the Local Government Act 1972, to approve estimates of expenditure for the period 1st April 2015 to 31st March 2016, and to note the Provisional Forecast of Estimates of expenditure for the period 1st April 2016 to 31st March 2019.

Members are asked to

- **Approve the Provisional Estimates for the period 1st April 2015 to 31st March 2016**
- **Note the Provisional Forecast of Estimates for the period 1st April 2016 to 31st March 2019.**

Background

The FPSC, having considered the draft estimates of expenditure for financial year 2015/2016, resolved to recommend to the Authority that the constituent County Councils contribute a standstill levy in the sum of £1,391,070.

The Levy which includes 'New Burden' funding would be in the proportions set out in the Statutory Instrument establishing the constitution of the Authority ie. the following proportions:

	Norfolk County Council 38.5%	Suffolk County Council 28.9%	Lincolnshire County Council 32.6%
	£	£	£
Contribution from County Council Funds	383,816	288,111	324,998
New Burden Funding Allocation	151,999	114,420	127,726
Total Levy	535,815	402,531	452,724

Proposed expenditure under the main budget heads is shown on the sheet attached to this report (page 25)

The Authority is asked to confirm the FPSC's recommendation to Levy a total of £1,391,070 and approve the estimates of expenditure for the period 1st April 2015 to 31st March 2016.

The Authority is further asked to note the Forecasts of Estimates of expenditure for the period 1st April 2016 to 31st March 2019. The Forecast of Estimates is attached to this report (page 26)

New Burden Funding has been confirmed for the year 2015/2016 but at this stage not beyond.

Background documents

Unconfirmed Minutes of FPSC meeting held 16th January 2015

Provisional Estimates of Expenditure 2014/2015

	2014/2015 Budget Inc. Infl	2014/2015 Act/Proj	2015/2016 Provisional Estimate
	£	£	£
Salaries & Wages	949,240	902,650	951,980
General Expenditure	226,076	239,140	226,220
<u>Departmental Operational Costs</u>			
Research and Environment	15,606	19,100	20,000
Marine Protection	20,400	24,000	15,000
Communication and Development	16,320	4,800	5,000
<u>Vessels</u>			
Moorings & Harbour Dues	22,102	19,860	12,000
Research Vessel - Three Counties	71,924	95,300	102,000
Enforcement Vessels – John Allen	58,650	73,100	48,000
Pisces III/Pacific 22	5,452	8,500	8,300
Vehicles	22,340	23,600	25,300
TOTAL EXPENDITURE	£ 1,408,110	£ 1,410,050	£ 1,413,800
INCOME	-17,000	-19,000	-20,000
EXPENDITURE LESS INCOME	£ 1,391,110	£ 1,391,050	£ 1,393,800
<i>LESS New Burden Funding</i>	<i>-£394,145</i>	<i>-£394,145</i>	<i>-£394,145</i>
LEVY to be funded by County Councils	£ 996,965	£ 996,905	£ 999,655
Percentage reduction from Base Levy (£1,329,236)	-25.0%	-25.0%	-24.0%

Provisional Forecast of Estimates 2016/2019

	2015/2016 Estimate Incl. Infl £	2016/2017 Forecast £	2017/2018 Forecast £	2018/2019 Forecast
<u>SALARIES & WAGES</u>				
Staff Remuneration	740,730	755,000	766,685	782,000
Superannuation	155,550	162,325	164,838	168,130
National Insurance	55,700	84,562	85,102	86,800
TOTAL	951,980	1,001,887	1,016,625	1,036,930
<u>GENERAL EXPENDITURE</u>				
Accommodation	92,075	93,345	94,185	94,075
General Establishment	77,645	76,770	77,600	96,400
Officers' Travel and Subsistence	23,000	24,000	24,750	25,500
Members' Travel	5,000	3,850	3,900	4,000
Training	28,500	31,000	25,000	25,000
TOTAL	226,220	228,965	225,435	244,975
<u>DEPARTMENTAL OPERATIONAL COSTS</u>				
Research and Environment	20,000	17,500	17,600	18,000
Marine Protection	15,000	16,500	16,750	17,000
Communication and Development	5,000	5,500	5,600	5,800
<u>VESSELS</u>				
Moorings & Harbour Dues	12,000	12,000	12,000	12,000
Three Counties				
Operating Costs	102,000	105,000	106,000	75,000
Enforcement Vessels				
RIB(S)				
Operating Costs	48,000	51,000	52,000	54,500
Pisces III/Pacific 22 RIB				
Operating Costs	8,300	8,500	7,500	7,500
TOTAL VESSEL COSTS	170,300	176,500	177,500	149,000
<u>VEHICLES</u>				
Operating Costs	25,300	25,045	25,125	25,500
TOTAL EXPENDITURE	1,413,800	1,471,897	1,484,635	1,497,205
INCOME	-20,000	-25,000	-25,000	-25,000
LEVY (Expenditure less Income)	1,393,800	1,446,897	1,459,635	1,472,205
LESS New Burden Funding (Not committed beyond 2016)	-394,145	-394,145	-394,145	-394,145
LEVY to be funded by County Councils	999,655	1,052,752	1,065,490	1,078,060
Percentage Reduction from Base Levy	-24.0%	-20.9%	-19.8%	-18.9%
Memo Base Levy = £1,329,236				

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 10

17th Eastern Inshore Fisheries and Conservation Authority meeting

28th January 2015

Payments made and monies received during the period 16th October 2014 to 31st December 2014

Report by: Andrew Bakewell – Head of Finance

Purpose of report

It is an audit requirement that the Authority's receipts and payments are presented to and formally approved by Members at their quarterly Statutory meetings.

The report on Payments made and monies received during the period 16th October 2014 to 31st December 2014 is attached.

The payments have been made in accordance with EIFCA's Financial Regulations and the necessary processes and approvals have been carried out.

Recommendations

Members are asked to:

- **Approve the report.**

Background documents

There are no background documents to this paper

**Finance Officer's Report on Payments Made and Monies Received during the period
16th October 2014 to 31st December 2014**

Payments made during the period 16th October 2014 to 31st December 2014

	Month 07	Month 08	Month 09	TOTAL
	£	£	£	£
Transfers to EIFCA Salaries & Wages Acct.	0	158,000	78,000	236,000
Rent, Rates & Service Charges	1,288	9,815	3,873	14,976
General Establishment	3,950	5,888	900	10,738
Legal Fees	206	0	0	206
Staff Travelling & Subsistence	571	2,718	1,844	5,133
Members' Allowances	0	1,754	0	1,754
Training	0	2,589	469	3,058
Moorings/Harbour Dues	0	123	653	776
Pisces III Operating Costs	870	855	0	1,725
Three Counties Operating Costs	1,756	9,726	573	12,055
FPV John Allen –Operating Costs	6,896	655	188	7,739
Vehicle Operating Costs	3,455	1,015	1,491	5,961
Communication and Development	693	36	39	768
Research and Environment	5	698	75	778
Enforcement	72	21	0	93
Wash & Nth Norf. EMS Project	126	214	270	610
Wash Fishery Order	0			
New vehicles				
Petty Cash		100		100
VAT recoverable (Quarter)	3,083	3,810	1,226	8,119
TOTAL PAYMENTS MADE	22,971	198,017	89,601	310,589

Monies received during the period October 2014 to December 2014

	Month 07	Month 08	Month 09	TOTAL
	£	£	£	£
Levies				
Treasury Deposit Interest				
VAT				
Lay rents	133			133
HMRC Mineral Oil Rebate				
WFO – Licences				
WFO - Tolls				
Defra funding				
Wash & North Norfolk Coast EMS	4,125	88		4,213
Sale of equipment		269		269
EHO sampling				
Miscellaneous	124			124
TOTAL MONIES RECEIVED	4,382	357	0	4,739

Vision

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**Action Item 11****17th Eastern Inshore Fisheries and Conservation Authority meeting****28th January 2015****Report on the Management Accounts for the period 1st October 2014 to 31st December 2014****Report by:** Andrew Bakewell – Head of Finance**Purpose of report**

To set out the Quarterly Management Accounts for members to note.

Recommendations:**Members are asked to formally note the Management Accounts.****Background**The Management Accounts for the nine months to 31st December 2014 are attached.

The Management Accounts show the year to date actual income and expenditure in budget format monitored against the Budget apportioned for the period and a note of the Budget for the Year.

Members will note that the actual figures for the nine months show that there is a saving against budget of £132,941 (this will reduce considerably in Quarter 4 when the authority spends considerable sums on notably vessel refits, AIFCA subs and the office upgrade). This is made up of an under spend of £101,219 and an increase in Miscellaneous Income of £31,722.

The main variances to budget are as follows:-

<u>Expenditure</u>	£	<u>Reason</u>
Salaries	48,543	Full complement not achieved until October
General Expenditure	28,631	Advertising and AIFCA subs outstanding
Development & Comms	4,777	Non repeated set up costs
Enforcement	8,647	Allocation of costs
Research	762	
Vessels	12,854	Timing of expenditure – refits TC and JA
Vehicles	(2,995)	Insurance newer fleet
<u>Income</u>		
AIFCA	14,000	Extra capital funding
WFO Tolls	10,620	
Sale of vehicles	11,419	4 vehicles replaced in the year
Lay rents	2,853	
Interest	(9,010)	Timing of payments
Other	1,840	

Background documents

There are no background papers to this report.

Management Accounts

Financial Year 2014/2015.....

	ACTUAL Year to Date Qtr 3	BUDGET (APPORTIONED) Qtr 3	MEMO Budget For Year
	£	£	£
<u>SALARIES & WAGES</u>			
Staff Remuneration	521,284	557,700	743,600
Pension	103,244	111,540	148,720
National Insurance	38,859	42,690	56,920
TOTAL	663,387	711,930	949,240
<u>GENERAL EXPENDITURE</u>			
Accommodation	66,053	63,087	78,188
General Establishment	50,122	71,286	95,048
Officers' Expenses	14,518	12,240	16,320
Members' Travel	3,432	3,825	5,100
Training	15,987	28,305	37,740
TOTAL	150,112	178,743	222,414
Development & Communication	2,723	7,500	10,000
Enforcement	6,653	15,300	20,400
Research & Environment	10,943	11,705	15,606
<u>VESSELS</u>			
Moorings & Harbour Dues	12,291	16,576	22,102
Vessel Operating Costs			
Three Counties	53,300	56,943	71,924
Enforcement Vessels incl John Allen	35,529	42,450	58,650
Pisces III	6,084	4,089	5,452
TOTAL	107,204	120,058	158,128
<u>VEHICLES</u>			
Operating Costs	20,368	17,373	22,340
TOTAL	20,368	17,373	22,340
TOTAL EXPENDITURE	961,390	1,062,609	1,408,110
<u>INCOME</u>			
Bank Interest	-3,740	-12,750	-17,000
Sale of assets	-11,419	0	
WFO Licence Tolls	-10,620	0	
Additional funding	-14,000	0	
EHO sampling	-1,840	0	
Lay rents	-2,853	0	
TOTAL INCOME	-44,472	-12,750	-17,000
EXPENDITURE LESS INCOME	916,918	1,049,859	1,391,110

Vision

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Action Item 12

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Mussel Fishery 2015

Report by: R W Jessop, Senior Research Officer

Purpose of report

This report describes the results of the inter-tidal mussel surveys and presents recommendations for the 2015 mussel fishery based on those results. Authority Members are asked to consider the recommendations and to agree on the management measures for the forthcoming fishery.

Recommendations

Members are asked to:

- **Note** the results of the 2014 autumn surveys described below and shown in attached figures.
- **Note** that the survey results show the total mussel biomass and the adult mussel biomass are both below the SSSI Conservation Objective targets, and as such do not provide a buffer above Conservation Objective targets with which to operate fisheries or absorb natural die-offs.
- **Note** that several of the beds are in a state of continued decline and are in poor condition.
- **Note** that there has been a poor settlement this year that is likely to delay future recovery.
- **Note** that in January 2014 the Authority consented to open a small seed mussel fishery on the understanding that there would be no fishery this year unless the surveys were able to show significant recovery had occurred.
- **Agree** that as there has been a continued decline rather than a recovery, there are insufficient mussel stocks to support either a harvestable fishery or a seed mussel relaying fishery without having an adverse impact on the sustainability of the stocks and the favourable SSSI condition of the site.

Background

2014 STOCK ASSESSMENT FOR THE WFO 1992 REGULATED MUSSEL STOCKS

Introduction

Each autumn the Authority conducts stock assessment surveys on the inter-tidal mussel beds within the regulated fishery of the Wash. The results of these surveys are used to inform the management process that determines the measures for the forthcoming mussel fisheries.

Following a crash of the mussel stocks during the 1990s, draconian management measures were required to help the stocks recover during the 2000s. This recovery was greatly facilitated by an exceptional settlement of mussel spat in 2001 that rejuvenated the existing beds and colonised several new areas of ground. Although the management measures helped to stabilise the stocks above 12,000 tonnes for a time, between 2009 and 2010 there was a further crash in mussel populations that caused the stocks to decline from 15,188 tonnes to 9,626 tonnes. The cause of this die-off was attributed to an unusually high abundance of the parasitic copepod, *Mytilicola intestinalis*.

In the three years following this decline the biomass of the stocks did recover sufficiently to achieve the 12,000 tonne target once more, but there was continued concern over the state of the beds. Settlements as seen in 2001 are rare in the Wash, with most recruitment occurring within existing beds rather than colonising new areas. Even so, this recruitment within beds tends to be erratic and in recent years has been insufficient on some beds to replace mussels lost to fisheries and natural causes. This has left several of the beds in a state of steady decline. Some of this decline can be attributed to an ageing mussel population, particularly on those beds that first settled in 2001 and have since received little subsequent settlement. Of greater concern, in recent years high mortalities of younger mussels, typically Year-3 cohorts, have also been observed. In several cases this has led to the sudden decline of beds that had previously appeared to be in a good state of health. This has been particularly noticeable on the Gat beds which since 2009 have declined from a stock of 5,604 tonnes to just 1,246 tonnes. Although samples from the beds have been analysed by Cefas, no causal factors were found that could explain the die-off of these younger mussels.

Although last year the management policies would have allowed for a fishery of approximately 1,000 tonnes, due to concern over the condition of the beds, the fishery was limited to a Total Allowable Catch of 400 tonnes. To facilitate recovery, the Authority only consented this fishery on the understanding that there would be no fishery during the 2014/2015 season unless the surveys found there had been significant recovery.

Survey summary

The 2014 surveys commenced on September 21st and were completed on October 27th. During this period 20 areas of mussel bed, plus the Welland Bank, were surveyed. This included two new areas of bed between Mare Tail and Herring Hill that had not previously been surveyed. Figure 1 shows the distribution of the beds surveyed.

Even with the inclusion of two new beds, the overall stock biomass was found to have declined from 12,100 tonnes in 2013 to 10,127 tonnes. Figure 2 compares the level of the mussel stocks on the intertidal beds since 2002 and the Conservation Objective targets for the site. From this graph it can be seen that the current stock levels are at their third lowest point from the 13 year period and have failed to achieve the Conservation Objective target of 12,000 tonnes. Although the stock of adult mussels has increased slightly from 4,487 tonnes to 4,575 tonnes, which is its third successive increase, the rate of recovery is slow and is still well below the Conservation Objective target of 7,000 tonnes.

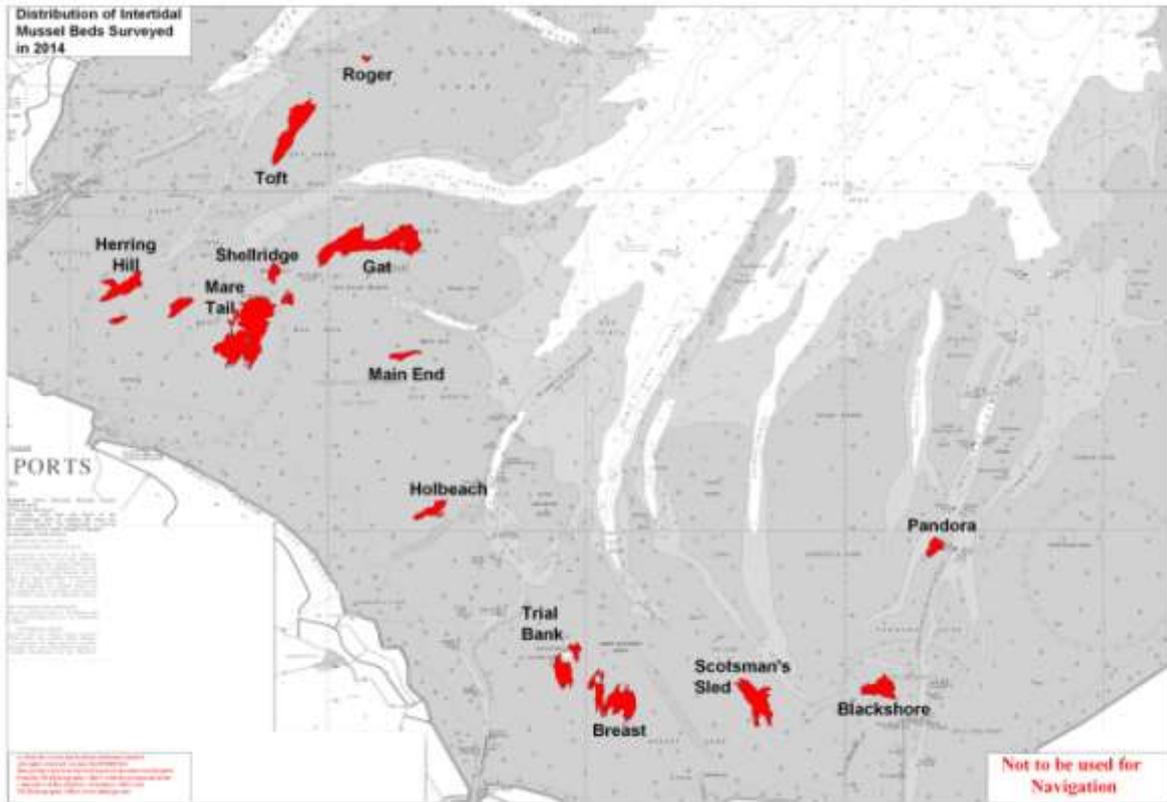


Figure 1 – Chart showing the distribution of mussel beds surveyed during 2014

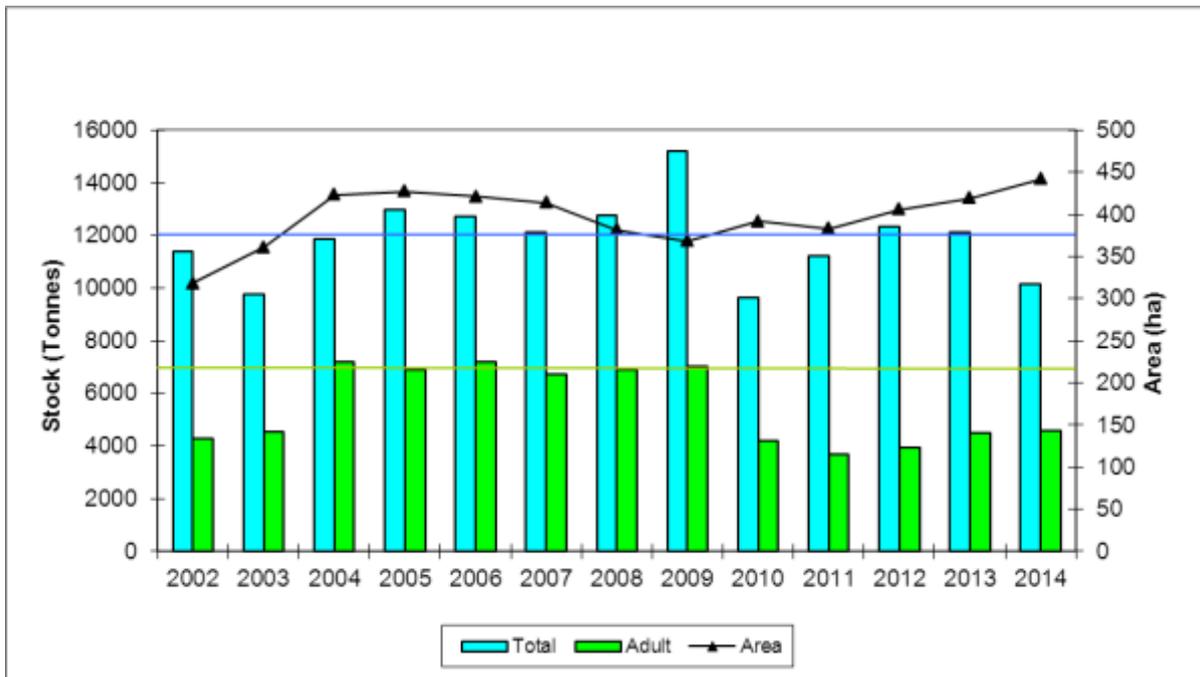


Figure 2 – Intertidal mussel stock levels in the Wash since 2002 and the Conservation Objective targets

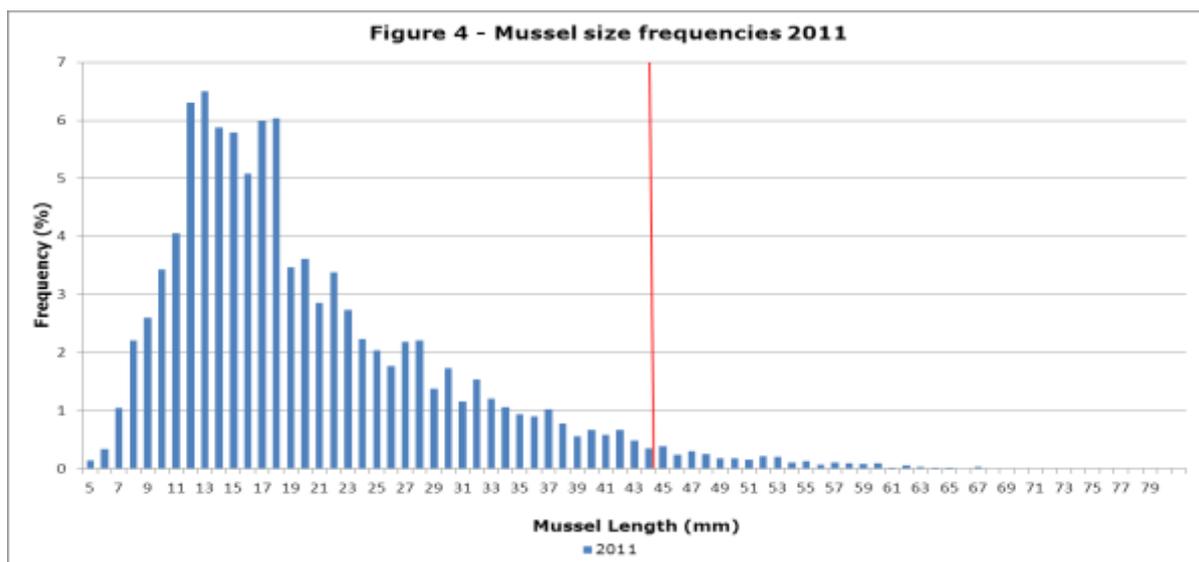
BED	2014							2013	
	AREA	COVERAGE	DENSITY	TOTAL STOCK	STOCK >45MM	% >45MM	Tonnes/ha	TOTAL STOCK	% CHANGE
Mare Tail North	66.7	41	0.9	2437	991	40.7	36.5	2398	1.6
Mare Tail South	35.5	28	0.78	782	214	27.4	22.0	890	-12.1
Mare Tail East	4.7	26	0.41	51	6	11.8	10.9	54	-5.6
Mare Tail West	11.4	37	0.8	342	48	14.0	30.0	na	na
Shellridge	7.6	11	0.31	26	16	61.5	3.4	6	333.3
Toft	43.1	31	1.24	1638	1346	82.2	38.0	2005	-18.3
Roger	1.6	25	0.69	28	18	64.3	17.5	64	-56.3
Gat, West	43	30	0.54	699	401	57.4	16.3	1110	-37.0
Gat, Mid	24.1	13	0.58	186	142	76.3	7.7	388	-52.1
Gat, East	16.5	31	0.71	361	309	85.6	21.9	337	7.1
Main End	6.6	29	0.74	141	111	78.7	21.4	95	48.4
Holbeach	12.4	37	0.66	303	102	33.7	24.4	502	-39.6
Herring Hill	25.1	36	0.79	710	96	13.5	28.3	881	-19.4
East Herring Hill	3.9	38	0.49	71	15	21.1	18.2	na	na
Trial Bank	24.9	33	0.85	686	137	20.0	27.6	1014	-32.3
Breast, West	15.4	12	0.91	162	55	34.0	10.5	316	-48.7
Breast, East	31.7	26	1.08	893	247	27.7	28.2	1154	-22.6
Scotsman's Sled, East	36.9	24	0.33	291	78	26.8	7.9	365	-20.3
Blackshore	21.6	17	0.46	171	104	60.8	7.9	386	-55.7
Pandora	9.5	21	0.74	149	139	93.3	15.7	135	10.4
TOTAL	442.23			10127	4575	45.2	22.9	12100	-16.3
Welland Bank	1.6	72	1.87	210	127	60.5	264.2	328	-36.0

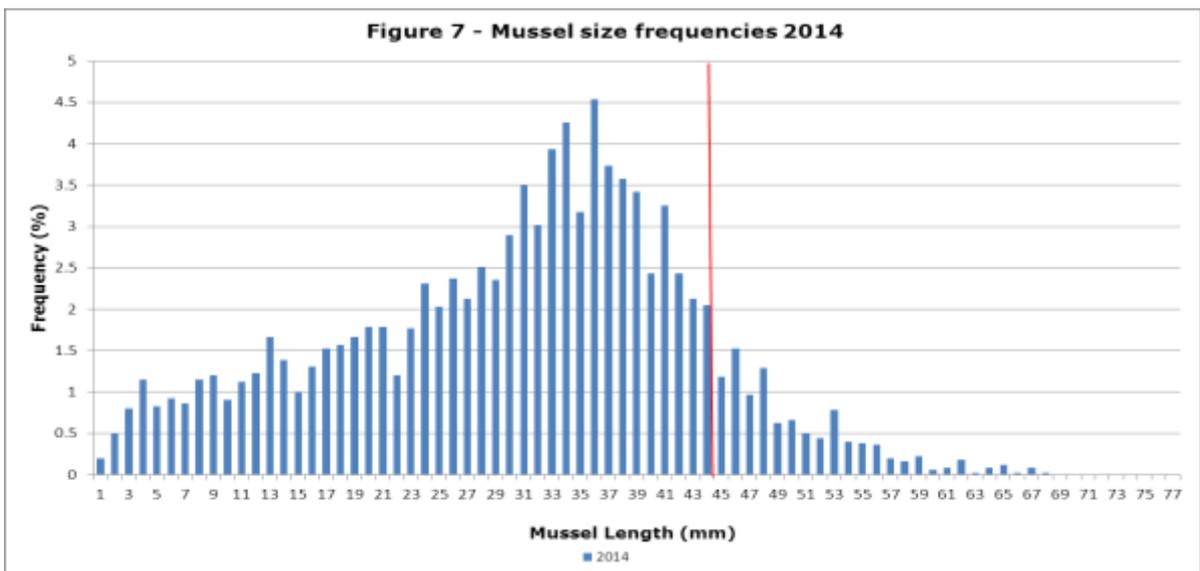
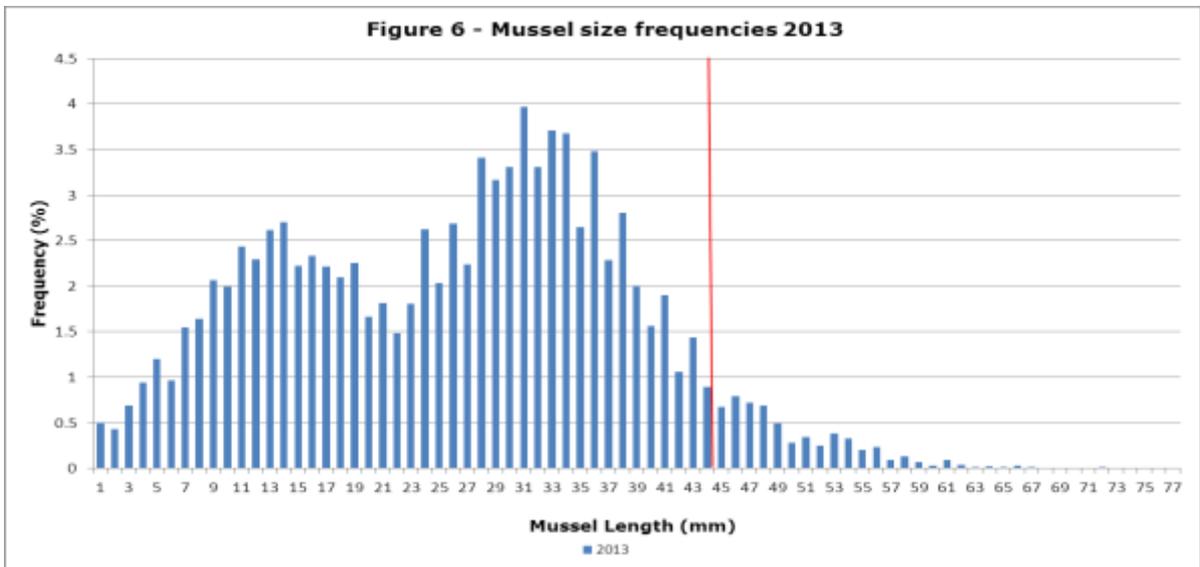
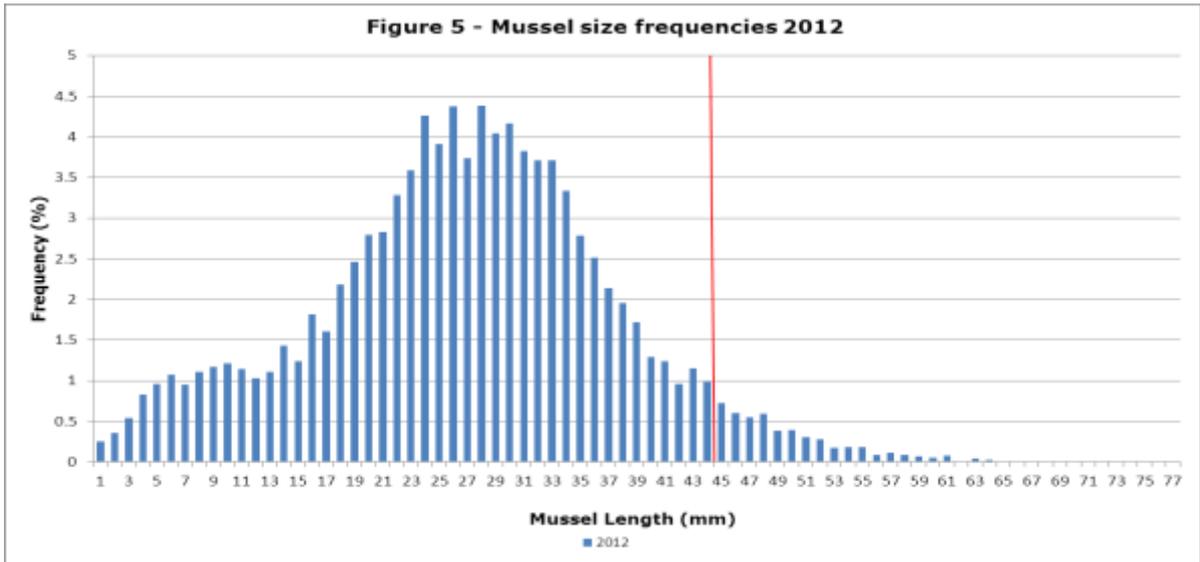
Figure 3 – Table summarising the details of the mussel stocks on individual beds at the time of the 2014 surveys

Figure 3 summarises the stock levels on the individual beds and compares them to the previous year's level. From this table it can be seen that the total biomass of mussels on all but five of the beds surveyed in 2013 has declined. Further, of those five that have not declined, three are either very small (Shellridge) or difficult to survey and prone to surveying errors (Main End, which lies partially submerged, and Pandora, which is covered by large expanses of shell). Whereas five beds supported over 1,000 tonnes in 2013, now only the North Mare Tail and Toft beds do. While fishing activity can account for some of the losses on the Mare Tail, Holbeach, Herring Hill and Breast beds, all of which were opened to the 2013/2014 seed fishery, the majority of the losses cannot be attributed to fishing effort. Instead, it is believed a high proportion of this year's losses were due to the deaths of 3 year-old mussels, occurrences of which have been observed and noted in recent years.

Figures 4-7, which show the size frequencies of the mussels sampled in each of the surveys between 2011 and 2014, help to explain this. When there are good settlements of spat, as was last seen in 2011, size frequency charts show a preponderance of individuals in the 5-20mm size range (as seen in figure 4). By contrast, the lower levels of individuals from this size range in the charts from subsequent years indicate poor settlements in 2012 and 2014 and a light settlement in 2013. While these recent poor settlements are providing little recruitment to replace natural losses, the large group that settled in 2011 will this year have reached that critical 3 year-old age at which mortalities have been observed. This will have resulted in significantly higher mortality levels this year than recruitment. Due to on-going declines, many of the beds are now in poor condition, supporting only low densities of mussels.

The poor settlement shown in figure 7 for 2014 reinforces observations made during the recent surveys, in which little evidence of new recruitment was seen. Even in years of poor recruitment, one or two beds usually receive a moderate settlement. Results from this year's survey, however, indicates none of the beds received any settlement of significance during 2014. This means the decline of the beds is likely to continue next year and any recovery will be delayed until there has been a successful settlement.





Comments and recommendations

The survey results show that year on year mussel stocks are declining and it is for consideration that a significant weather and/or disease event may constitute the tipping point from which the fishery cannot recover. The very poor settlement this year will introduce risk to those business models which rely heavily upon returns from mussel aquaculture.

It is the Authority's remit to provide healthy seas, sustainable fisheries and a viable industry. The management of this year's inter-tidal mussel fishery is finely balanced between the short term requirement to support a viable industry and the long term duty to ensure that the Wash fishery is managed appropriately to ensure long term sustainability. While officers understand the industry's need to harvest the inter-tidal mussel stocks, particularly when fishing overheads are increasing year on year and profit margins are under pressure, it is their opinion that there would be considerable risk to the sustainability of the stocks and to the favourable SSSI condition of the site if a mussel fishery was to be opened at current stock levels. It is the officer's recommendation, therefore, that the inter-tidal mussel stocks should not be opened for either a harvestable or relaying seed fishery this year.

Consultation

As the recommendation is for the fishery to remain closed this year there is no requirement to consult with the Wash Fishery Order 1992 entitlement holders and local Fishermen's Associations regarding the fishery proposals. The outcome of members' deliberations will be forwarded to all significant stakeholders and placed on our website.

Financial implications

The Authority has already planned for its resources to include an annual mussel survey and fishery. No additional change is foreseen at this time

Regulatory implications

There is no proposed regulatory change. Authority staff members will be involved in enforcing the management measures.

Publicity

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

Ron Jessop
Senior Research Officer

List of Back ground papers

No further papers are attached.

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 13

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Mussel Regeneration Project

Report by: R W Jessop, Senior Research Officer

Purpose of report

This report describes the results of the Mussel Regeneration Project conducted by the Authority during 2014 and presents recommendations for the continuation of the project in 2015. Authority Members are asked to consider the recommendations and to agree to the continuation of this project in 2015.

Recommendations

Members are asked to:

- **Note** that scientific literature suggests a raised matrix of live mussels and dead shell bound together with byssus threads provides an important habitat for recruiting fresh settlements of mussel seed.
- **Note** that the mussel coverage on several of the beds is currently insufficient to enable these raised matrixes to develop.
- **Note** the results from the Authority's 2014 mussel regeneration project indicate the project has had a moderate success at attracting mussels to the experimental areas, even though there had been a poor settlement on the inter-tidal beds during the study period.
- **Approve** Authority officers to continue and expand the mussel regeneration project during 2015, to attempt regeneration of a small area of mussel bed.
- **Direct** officers to consult with the Wash fishing community to discuss further funding for the experiment.

Background

2014 MUSSEL REGENERATION PROJECT

Since the SSSI Conservation Objective targets and EIFCA management policies were introduced, management decisions for the mussel fisheries have focused heavily on achieving these target thresholds rather than developing the fishery. Barring the occasional die-off, these policies have helped to stabilise the overall mussel biomass, but by continually harvesting the stocks down to their minimum thresholds, the beds have seldom had an opportunity to develop beyond these levels. This has produced a situation in which several of the beds appear to be in terminal decline, while the fishery has become ever more dependent on those few beds that are still in a healthy condition.

Healthy mussel beds with a good coverage and high mussel density create a raised matrix of live mussels and dead shell bound together with byssus threads. This is an important habitat for attracting fresh settlements of seed which find shelter from weather and protection from predators among the crevices. Over the years the combination of fishery and natural mortalities on some of the beds has exceeded recruitment, resulting in declining stocks. On those beds where this situation has been sustained for several years, the decline has resulted in mussel densities declining below the critical thresholds required to create raised matrices. With their potential to attract seed thus reduced further, these beds struggle to attract sufficient recruitment to reverse their decline. This in turn places more pressure on the remaining healthy beds to deliver the fishery's needs, endangering their sustainability too.

While fishery closures could help those beds that still have sufficient densities to recover, they may not help those beds that have already fallen below these thresholds. To halt their decline and facilitate their recovery, additional measures may be required. Relaying partially grown mussel seed from elsewhere is the most effective way of facilitating an immediate recovery on a mussel bed. The cost of seed is prohibitive for large-scale rejuvenation projects, however, and could not be sustained long-term as a viable management option. Instead a cheaper alternative solution for attracting seed is required that can be used as a management tool for facilitating recovery on beds where and when required.

A culch of shell has long been recognised as an important substrate for growing bivalve molluscs. Observations made during the annual inter-tidal mussel surveys have highlighted that mussel shells alone appear to be a poor medium for recruitment. Dense patches of mussel shell often remain in the ground following fisheries or natural mortality, but these areas frequently take many years to recover. Seed has often been observed to have settled in gullies containing either ridged out cockles or cockle shells, however. The reason for this difference may be in the disposition for mussel shells to lay flat on the ground and become buried, while cockle shells being more rounded, tend to remain raised, providing a matrix for attachment. As there is an abundance of relatively cheap cockle shells that are a by-product of the cockle fishery, a study was proposed to test their suitability as culch for attracting seed.

The timing of the study was important because the cockle shells needed to be in place before the settlement occurred. Following spawning the mussel larvae drift and disperse in the water column as swimming zooplankton. Once they reach about 0.25mm in length metamorphosis occurs and the larvae begin to settle. With mussels, this occurs in two stages. Primary settlement occurs sub-tidally, during which the larvae attach briefly to filamentous materials such as certain algae, hydroid colonies and fibrous rope. They remain attached to these materials until they have grown to about 0.5 - 1.5mm in length, after which they detach and become planktonic again. Secondary settlement can occur inter-tidally or sub-tidally, with the larvae usually settling on hard or creviced surfaces. It is during the secondary settlement phase that recruitment to inter-tidal mussel beds occurs, and which this project was aiming to attract. Primary spat are usually abundant in the water between May-July, following the spring spawning. The Authority acquired and deposited 72 tonnes of shells at the end of May in order to attract the subsequent secondary settlement.

The trial was initially proposed to take place within the Gat mussel bed. Since the mid-1990s the Gat had supported the largest extent of wild mussels in the Wash, but heavy mortalities between 2011 and 2014 had caused the stocks to decline, leaving large bare patches within the bed. Although it made sense to assist the recovery of this bed, the cause of the mortalities had not been determined and there was concern over the lack of recent mussel recruitment on the Gat. Because this trial was to determine whether a culch of cockle shells could be used to attract mussel seed, it was important to conduct the experiment in an area conducive for settlement. For this, a bed was preferred that had attracted regular recent settlements. The Trial Bank mussel bed on the Inner Westmark Knock sand was believed suitable for this purpose because not only had it attracted regular spatfalls in recent years, it also contained a large bare area that had resulted from heavy fishing in 2012. Although spat had settled within existing patches of mussels in this bed during 2013, there had been negligible settlement within these bare patches.

Six experimental 20m x 20m plots were marked out with wooden stakes on April 1st 2014. These plots were situated within bare areas of the mussel bed that had formally supported mussels but which had not recovered following fishing. Between May 30th and June 1st, local fishing vessels helped deposit 72 tonnes of cockle shells into three of the plots, enabling an average raised matrix height of 15cm to be achieved. The remaining three plots were left bare to act as comparative control sites. The six plots were monitored at monthly intervals between July and October to cover the period believed most likely to detect any evidence of spat settlement. Although there had been some concern that currents might wash the shells away, this did not occur. However, the shells did sink into the sediment faster than had been anticipated and by October the majority had become buried. Figures 1 and 2, which are photographs taken of one of the plots in July and October, show this.

During the study period the shells failed to attract large numbers of mussel seed. The inter-tidal surveys conducted in October, however, found mussel settlement on all of the beds had been poor so it is difficult to determine how successful the experiment would have been if there had been a successful settlement in the Wash. Although only a small quantity of seed settled within the experimental plots, the results do indicate that the shells were having some impact. During the study period 15 times as many mussels were found in the samples taken from the plots containing shells as from the control sites. This can be seen in figure 3, which also shows the shelly plots were accumulating progressively more mussels as the project progressed. This accumulation was not just from the settlement of juvenile mussels onto the shell, but also due to the ingress of older mussels into the plots. It is believed these older mussels were ones that had become detached from the main bed and had attached to the shells after being washed across the sand. By October, the three shelly plots had accumulated an estimated 560kg of mussels. Figure 4 shows the level of mussel density achieved within the plots by October.



Figure 1 – Experimental plot following shell spreading on June 1st.



Figure 2 – Experimental plot at time of monitoring on October 24th

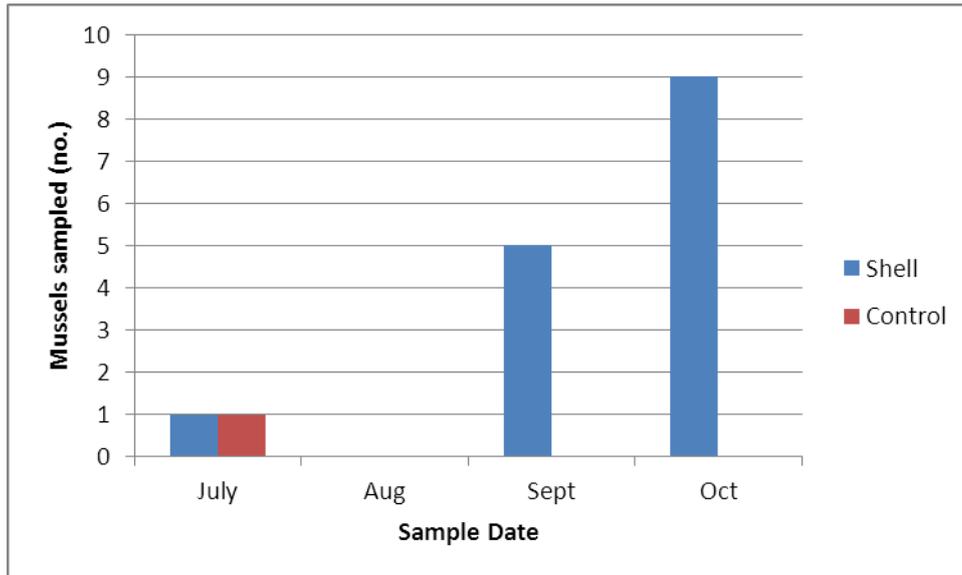


Figure 3 – Chart showing the number of mussels collected in samples taken from the experimental and control plots during the study period.



Figure 4 – Mussels (highlighted) that have accumulated in one of the plots containing shell. October 24th

Comments and recommendations

Several of the Wash mussel beds are in a state of progressive decline and no longer support the raised structures that are conducive for attracting new settlement. The Authority conducted a project in 2014 to explore a method of enhancing the sustainability of the beds by using cockle shells to attract seed. Although there was a failed spat settlement throughout the Wash, the project did show the shells were moderately successful at accumulating mussels.

Based on this success, the officers recommend the project is extended in 2015 to attempt under experimental conditions, the regeneration of 0.5 hectares of inter-tidal mussel bed. This would require approximately 200 tonnes of shell to be deposited on the seabed.

Consultation:

It is proposed to consult with the Wash Fishery Order 1992 entitlement holders and local Fishermen's Associations regarding their opinions of the proposed recommendations. Their approval of this project is pertinent as the project would need to be part-funded from the Wash Fishery Order fund.

Financial implications:

During the 2014 project, funding for the acquisition of shells and chartering of fishing vessels to deposit them was raised from the Wash Fishery Order Licence fund. In terms of costs to the Authority, 15 research officer days were spent on this project in addition to 1 day's vessel time for Three Counties and crew. Continuation of the project would seek further funding from the Wash Fishery Order Licence fund to cover the costs of shells and vessel charter and a similar cost to the Authority as 2014 for research officer and vessel time.

Regulatory implications:

There is no proposed regulatory change.

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

Ron Jessop
Senior Research Officer

List of Back ground papers

No further papers are attached.

Vision

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



Action Item 14

17th Eastern Inshore Fisheries and Conservation Authority Meeting

28 January 2015

Report by: L P Godwin, Project Officer/IFCO

Wash Lay Applications

Purpose of report

The purpose of this report is to update members on the progress made in processing Wash Fishery Order shellfish lay applications including the production of an updated lease agreement, a process for actions to take should a lease holder pass away and emergency mitigation measures for food availability issues resultant of lay activity.

Recommendations

Members are recommended to:

- **Note the progress made regarding lay applications.**
- **Agree to adopt the updated lease agreement.**
- **Agree to adopt the process for dealing with the death of a lease holder.**
- **Agree to adopt the mitigation measures relating to food availability.**

Background

At the Marine Protected Area sub-committee meeting (15th October 2014) four of the nine WFO lay applications were approved pending advice from Natural England. A decision on three of the applications was deferred (applications relating to the Thief sand) until after a survey has been carried out to ascertain whether cockle spat has remained after winter. A decision on two applications (those relating to the Wrangle sand) was deferred until such a time as DEFRA had provided advice relating to ownership of WFO lays in excess of 10 ha.

In addition, offices were directed to produce an updated lease agreement, a process for actions to take should a lease holder pass away and mitigation measures for food availability issues.

Updates on the progress made pursuant of the MPA sub-committee's direction is presented below.

Updated lease agreement

An updated lease agreement is presented in Annex 1. The updated lease agreement has been examined by a legal expert to ensure accuracy. The changes made are in line with direction from the MPA sub-committee (15th October 2014). The updates are summarised below:

Change	Covenant	Explanation	Reason
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pertaining to...			
Origin of seed	8(e)	This covenant requires lay holders to seek the written permission from the Authority to deposit shellfish seed which has originated from outside of The Wash.	Eastern IFCA's Aquaculture Production Business certification requires us to report, on an annual basis, the movement of shellfish with regards to the several fishery. This covenant will ensure seed originating from outside of The Wash is recorded and allows for officers to check that seed is not originating from areas designated for diseases.
Removal of shellfish	8(f)	Requires lay holders to inform the Authority of the destination of any shellfish removed from a lay which is destined for relaying somewhere else.	Eastern IFCA's Aquaculture Production Business certification requires us to report, on an annual basis, the movement of shellfish with regards to the several fishery. As part of their audit trail, Cefas require information on the destination of seed when originating from The Wash.
Limiting stocking density	8(g)	Gives the Authority the ability to limit the stocking density of shellfish lays as required.	As a result of the uncertainties regarding food availability in The Wash, the Authority requires a mechanism which will mitigate these impacts. In the case that the lays are having an impact on food availability, this covenant will allow the Authority to limit the amount of cultivated mussel on the lays, reducing the impact.
Updated references	9	Includes a reference to the Aquatic Animal Health (England and Wales) regulations 2009/463.	n/a
Direction to mark a lay boundary	10	Directs the Lessee to mark the boundary of their lay in the presence of a fisheries officer.	Article 6(10) of the Wash Fishery Order states that <i>the [Authority] shall mark or cause to be marked...all laying in the several fishery.</i>

			This covenant pertains to the Authority causing to be marked the lays. In addition, this will serve as the final investigation that the ground is not set with any wild species as prescribed in The Order.
Death of a lay holder (if lay holder if an individual)	End of lease	A break clause which terminates the lease in the case that the lay holder dies. This only applies if the lay holder is an individual (not a corporate entity)	If a lease is in the name of a business (corporate entity) the lease will survive the death of any share holder/partner etc. In the case of individual ownership, the lease is terminated and the Authority will determine how to proceed with any shellfish within the lay.

The updated lease agreement also includes updated references to the Authority and contemporary legislation.

Process for dealing with the death of a lay holder

The Marine Protected Area Sub-Committee agreed to insert a ‘break-clause’ into the Wash Fishery Order lease agreement to the effect that, in the circumstances of the death of a lease holder, the contract is broken and the lease is expired.

This break-clause only applies where the lease is held in the name of an individual rather than a corporate entity. That is, where the lease belongs to a corporate entity, the death of one of the partners would not result in the lease agreement expiring via the break-clause.

Should the break-clause be activated, Eastern IFCA wishes to strike the appropriate balance between fairly apportioning WFO shellfish leases (including to those on any waiting lists) and maintaining the viability of family businesses in the event of the death of a lease holding family member. As such, Eastern IFCA will determine the destination of the lease via the process shown in Annex 2.

Byelaw 8 of Eastern IFCA’s byelaws will be used initially to temporarily close the area of the lay to fishing to prevent it from entering part of the Regulated fishery and potentially open to fishing (i.e. if a cockle fishery were currently open).

Emergency mitigation measures – food availability issues

Marine estuarine ecosystems are widely recognised as having limits to the amount of filter feeding organisms they can support – this is known as an area’s carrying capacity. One important aspect of carrying capacity is an area’s capability of providing enough food to support organisms within that system.

By introducing additional organisms into a system, there is an inherent risk that the finite food resources within that system could be exceeded to the detriment of the ecosystem. Introducing additional shellfish lays into The Wash represents such a risk.

The carrying capacity (in terms of the biomass of filter feeding organisms) of The Wash is unknown. Attempts to accurately describe the sites carrying capacity have not been successful due to the complex nature of The Wash and a lack of data. As such, mitigation measures are proposed to ensure that, in the event food has become limiting, management action is available to Eastern IFCA to remedy the situation.

The measures summarised below are presented in more detail in Annex 3 and forms an integral part of the Habitats Regulation Assessment submitted to Natural England. Without mitigation measures aimed at remedying a food limiting situation, the proposed lays are considered to potentially have a significant likely effect on the integrity of the European Marine Site (of which The Wash is a part).

Summary of mitigation measures

As the current carrying capacity of The Wash is unknown, monitoring will be undertaken to ascertain whether metrics pertinent to food availability are at levels consistent with a food limiting situation. Data which is currently being collected through SWEEP project will be used to inform this monitoring. Reaching trigger levels in a manner consistent with the process outlined in Annex 3 will ultimately lead to the requirement for lay holders to reduce the stocking density of their lays.

On a monthly basis, data from SWEEP will be analysed to determine whether thresholds have been reached.

Thresholds – Initially chlorophyll concentration and mussel condition (as meat yield) from three sites will indicate whether a potential food limiting situation is occurring. Should two or more sites reach their thresholds for both chlorophyll concentration and mussel condition (see Annex 3) the process for implementing the mitigation measures is triggered.

1 – A grazing pressure assessment is carried out. This is used to determine whether the current biomass of shellfish in The Wash is likely to be having an effect on the standing stock of phytoplankton of a magnitude capable of leading to a food limiting situation. If this is the case, lay holders are informed that there is the potential that stocking densities of their lays may need to be reduced.

2 – If trigger levels are reached for a second consecutive month an additional grazing assessment is carried out. If grazing pressure again exceeds primary production a further letter is sent on to lay holders. This assessment is then used to determine the required reduction in stocking density of WFO lays to rebalance grazing pressure with primary production.

3 – If trigger levels are reached for a third consecutive month a grazing pressure assessment is carried out and the required reduction in stocking density of lays is again estimated. Lay holders will be informed that they have one month to reduce stocking density as required.

4 – Monitoring continues and the stocking density cap remains in place until such a time as the MPA sub-committee decides it is ecologically safe to be lifted.

Risks

The main risk associated with the lays is that a situation occurs where grazing pressure is out of balance with primary production and the wild shellfish beds of The Wash suffer a loss of condition, poor recruitment or potentially death as a result of food limitation. This has the potential to have wide ranging ecological impacts including on the internationally important migratory wading birds which visit The Wash in winter. Additionally, The Wash supports a multi-million pound cockle fishery annually – impacts on wild stocks could therefore have wide ranging social and economic impacts particularly to local communities.

There is however the risk of reducing stocking density of lays when there is no actual impact on food availability. The process proposed for determining if measures are necessary has limitations primarily relating to the lack of available data. SWEEP monitoring provides only a limited sample set of monthly data which may lead to erroneous results. This is largely mitigated for by the requirement for consecutive months of conditions which meet the thresholds.

In addition, the environmental data being used (i.e. chlorophyll concentration and mussel condition) vary naturally through and between years – a perceived food limiting situation may actually represent a natural shift in conditions. The grazing assessment however should go some way to determine whether poor conditions are a result of exceeding carrying capacity or natural fluctuations.

Other progress

Consent from the Minister for lays in excess of 10ha – Officers have liaised with Defra staff and are awaiting a formal response from the Minister. Defra has informally indicated that the consent is likely to be given.

Resurveying of the Thief Sand – a date has been set for a resurvey of the application lays on the Thief Sand to ascertain whether they still contain cockle spat as was recorded in autumn 2014. The Thief sand will be resurveyed as part of the cockle surveys at the end of March (weather dependent). The findings will be presented to the Marine Protected Area sub-committee where the associated lay applications will be presented again.

WASH FISHERY ORDER

LEASE FOR LAYS

WASH FISHERY ORDER 1992

LEASE of a laying for the cultivation
of molluscan shellfish

THIS LEASE made the []
BETWEEN THE CROWN ESTATE COMMISSIONERS (being the managers of the Crown Estates) hereinafter called the Owners of the one part and the Eastern Inshore Fisheries and Conservation Authority (being the Grantees of the Wash Fishery Order 1992) hereinafter called the Lessors of the second part and [Name and address], hereinafter called the Lessee of the third part.

Whereas under and by virtue of Article 3 of the Wash Fishery Order 1992, the Lessors are the Grantees of an Order for the establishment and maintenance of a Several Molluscan Fishery in the Estuary of the Wash in the Counties of Norfolk and Lincolnshire (the "Several Fishery")

AND WHEREAS the Lessors are empowered from time to time to set and mark out such portions of the area within the limits of the Order aforesaid as they may think fit for the purpose of being leased as lays or layings or breeding or fattening grounds for the cultivation of molluscan shellfish and the lay or layings hereinafter described has been duly set and marked out pursuant to the provisions of the said Order.

AND WHEREAS in pursuance of the powers conferred upon them by the said Order and of all other powers if any vested in them the Owners and the Lessors have agreed with the Lessee to lease to him the laying No. xxx consisting of xxx hectares hereinafter described for the period and upon the term and conditions hereinafter contained.

NOW THIS DEED WITNESSETH that in consideration of the rent covenants provisions and Agreements herein reserved and contained and on the part of the Lessee to be paid observed and performed the Owners and the Lessors hereby demise unto the Lessee ALL that laying situate in the Wash in the Counties of Norfolk and Lincolnshire being numbered xxx on the official plan of the layings of which a copy of the relevant part appears in the first Schedule hereto TO HOLD the same unto the Lessee from the date day of date for the term of time (years) and thence forth from year to year determinable by either party giving to the other three calendar months previous notice in writing expiring on the 31st day of March in any year or until the lease has been in effect for ten years. YIELDING AND PAYING therefore :- the yearly rent is determined by the quota available from the public beds as set out in Minutes WM04/13, such sum payable by yearly payments on each 1st day of April in every year of the said term in advance and in the following terms and conditions viz:-

The Lessee hereby covenants with the Lessors as follows:--

(1) That he will pay and discharge all taxes and assessments and other outgoings (if any) including Licence fees to the Owners imposed upon the said laying during the said term:

(2) That he will use the said laying only for the propagation cultivation breeding fattening or gathering of molluscan shellfish and in accordance with the Wash Fishery Order 1992 and that he will efficiently and properly manage use and keep such laying and will not allow the same nor any part thereof to be dormant or unused or to become choked or fouled or contain any starfish or any other matter substance or thing which is or might be detrimental to molluscan shellfish and that he will not underlet, assign, or part with the possession of the said laying without the previous consent in writing of the Lessors. Such consent not to be unreasonably withheld.

(3) That he will at all times allow the Lessors full right and liberty by their Fishery Officers or any of their servants agents or workmen to inspect the laying or for any other purpose and that he will render to the Lessors accounts of all molluscan shellfish layed, relayed and sold by him to enable them to comply with the requirements of the Ministry of Agriculture and Fisheries under the provisions of Article 5 of the Wash Fishery Order 1992

(4) That no building erections embankments or other works shall at any time be commenced or executed by the said Lessee within the limits of the said Wash Fishery Order 1992 and that he the said Lessee shall not interfere in any way with the works boundaries or marks of the Lessors which show the extents of each lay.

(5) That he the said Lessee will indemnify the Owners and the Lessors against all claims actions and demands of any kind whatsoever which may arise out of or in any way in consequence of the used or otherwise of his laying.

(6) That the laying shall not be used for any purpose other than that prescribed by the Wash Fishery Order 1992.

(7) That he the said Lessee shall and will in every way during the period of his tenancy comply with the provisions of the Wash Fishery Order 1992 so far as he is affected thereby.

(8) That the execution of this lease by the Owners and the Lessee shall constitute his consent, for the purpose of Section 158(5) of the Marine and Coastal Access Act 2009 and Section 3(1) of the Sea Fisheries (Shellfish) Act 1967 (or any statutory re-enactment or modifications thereof) to the application to the laying hereby demised, , of the byelaws made from time to time by the Lessors under the Powers contained in Sections 155 to 162 of the Marine and Coastal Access Act 2009 and all Regulations and Restrictions made by the Lessors under the powers contained in Section 3 of the said Sea Fisheries (Shellfish) Act 1967 or any prior legislation to the like effect.

(9) That the said Lessee will abide by and conform to the following restrictions:-

a) Vessel Length Restriction

No Layholder shall use a vessel exceeding 14 meters in overall length (LOA) unless the vessel was legally owned by the Layholder on 24th October 2007; or the vessel was used

by the Lessee in the Several Fishery on or before 24th October 2007. Vessels exceeding 14 meters LOA will only be able to operate within the Several Fishery;

- i. until there is a change of legal ownership, or;
- ii. there is any modification that increases the carrying capacity of the vessel, or;
- iii. the vessel ceases operation;

whichever occurs earlier.

b) Maximum Carrying Capacity

No Lessee shall use a vessel that has a carrying capacity exceeding 40 tonnes. Such carrying capacity if necessary shall be determined by a Naval architect approved by the Lessor the reasonable cost of which shall be borne by the Lessee.

c) Number of Dredges

No vessel shall use more than two dredges.

d) Dredge Design

No vessel shall use a dredge that has an inside opening greater than one meter. The design of dredges must be approved by the Lessor. The use of suction dredges is not permitted.

e) Origin of seed

No Lessee shall by itself or its servants or agents deposit shellfish of any kind onto its lay holding which has originated from anywhere other than within the limits of The Wash Fishery Order 1992 unless written consent is obtained from Eastern IFCA which consent shall not be unreasonably withheld or delayed.

g) Removal of shellfish from lays

No Lessee shall by itself or its servants or agents remove shellfish deposited onto their lay holding without informing the Lessor of its destination unless the shellfish are to be sold directly to a market.

h) The Lessor reserves the right to cap or otherwise limit stocking density of shellfish deposited on lays as is necessary. The Lessor will notify lay holders of stocking density restrictions one month prior to the date of the limits being imposed.

i) The Lessor reserves the right to make future reasonable changes to the lease conditions'.

(9) That he the said Lessee shall and will in every way during the period of his tenancy comply with the provisions of the Aquatic Animal Health (England and Wales) regulations 2009/463. and the Molluscan Shellfish (Control of Deposit) Order 1974/1555 (or any statutory re-enactment or modification thereof), and any statutory enactment laying down the health conditions for the production and the placing on the market of live bivalve molluscs.

(10) That he the said lessee shall and will have the responsibility of marking and maintaining such markings of the boundaries of his laying.

PROVIDED ALWAYS and it is hereby further agreed and declared that if the Lessee shall allow the said laying to become choked or fouled or to contain any starfish or any other matter substance or thing which is or might be detrimental to molluscan shellfish or if he shall fail to use the said laying for the purpose of propagation cultivation breeding fattening gathering or cleansing of molluscan shellfish or if he shall allow the same to lie dormant or unused shall use the same for any purpose other than that intended by these present then in each or any of such cases it shall be lawful for the Lessors without any notice whatsoever to the Lessee immediately to re-enter into possession of the said laying and to eject the Lessee there from without making any compensation whatever to the Lessee for any molluscan shellfish if any which may at the time of such re-entry be in or upon such laying.

Provided further that if the rent hereby reserved or any part thereof shall be in arrears for twenty-one days after the same shall become due (whether legally demanded or not) or in the event of any breach of any other covenant or agreement on the part of the Lessee herein contained or implied by virtue of the herein before recited order upon the execution hereof or of his becoming subject to the Bankruptcy Laws or making any composition or arrangement with his creditors the Lessors may determine the tenancy hereby created by giving to the Lessee seven clear days notice in writing to that effect and may after the expiration of such notice resume possession of the said laying and remove there from all property belonging to the Lessee and re-let the said laying without any process of law or further authority in that behalf. And the Lessors hereby covenant with the Lessee that on payment by him of the proper seasons and under the direction in all respects and supervision of the Fishery Officers of the Lessors for the time being to gather brood molluscan shellfish from such of the existing molluscan shellfish scalps under the jurisdiction of the Lessors as may be opened for fishing for the purpose only of depositing such molluscan shellfish in the laying aforesaid.

Provided always and it is hereby expressly agreed and declared that in the event of the lease granted to the Lessors by the Owners under the Wash Fishery Order 1992 being determined then this lease shall determine with that lease, and the said Lessee shall have

no right to compensation or to any return of rent against the Lessors in respect of such determination.

Provided always and it is hereby expressly further agreed and declared that in the event of the death of the Lessee then this Lease shall be determined and the said Lessee (or its estate) shall have no right to compensation or to any return of rent against the Lessors in respect of such determination.

Provided always and it is hereby further declared that in case of any dispute or difference which may arise between the Lessors and the Lessee during the said tenancy touching or concerning the user or occupation of the said laying such dispute or difference shall be referred to the sole arbitration of the Ministry of Agriculture and Fisheries whose decision hereon shall be final and binding and conclusive on the parties hereto.

IN WITNESS whereof the said parties have executed these present as a Deed the day and year first above written.

Signed as a Deed and delivered by)
the Lessors and for and on behalf)
of the Owners in the presence of)

Signed as a Deed and delivered by)
the Lessee in the presence of)

FIRST SCHEDULE

This page should consist of a map of the lay in question.

Death of a Wash Fishery Order shellfish lease holder

Process

The process for determining the outcome of a break-clause being activated is summarised as four main questions resulting in three potential actions. A flow diagram is presented in Annex 1 of the following process.

1. Is the lay holder a corporate entity?

If the lease is in the name of a corporate entity (or a partner) the break-clause is not activated and the lease continues.

2. Is there currently shellfish on the lay holding?

If the lay holding is currently set with shellfish, these belong to the family of the deceased.

ACTION a - If shellfish is present at the lay holding, Eastern IFCA will, in the first instance, place a temporary closure to fishing on the affected lay holding under byelaw 8 of our byelaws. Eastern IFCA will need to be informed at the earliest opportunity of the death of a lease holder and takes no responsibility for the loss of shellfish in the absence of notification².

3. Has the family expressed a wish to retain the lease?

The family of the diseased may or may not wish to retain the lease agreement.

ACTION b – should the family of the deceased not wish to keep the lease agreement, the lease will be retired. Depending on the outcome of question 2 (above), Eastern IFCA will arrange with the family of the deceased a time to remove any shellfish remaining on the lay holding – including if the family do not wish to retain the shellfish in which case the shellfish will enter the regulated fishery.

Leases expire naturally after a maximum of ten years³, if a situation arises where a break-clause is activated but time remains on the lease agreement and the family of the deceased does express a wish to retain the lay holding, Eastern IFCA will explore the possibility of transferring the lease to a specified family member for the remaining duration of the lease.

4. Is there any reason why Eastern IFCA should not grant the transfer of a lease?

Eastern IFCA will first have to consider the eligibility of the proposed family member to attain the lease of the deceased as per Article 5 of the Wash Fishery Order 1992. Following this, Eastern IFCA will also consider the following factors:

- a. Are there currently any measures in place for the purposes of reducing grazing pressure in The Wash as per the mitigation measures agreed with Natural England and published

² Shellfish on the lay will become part of the wild fishery when the break-clause is activated. This could result in other fishers legally removing that shellfish.

³ Wash Fishery Order 1992 Article 6(2)(b) – The Authority cannot grant a lease for more than 10 years without the written consent of the Minister.

on Eastern IFCA's website? – if measures are currently in place, Eastern IFCA may determine that the reduction in the number of lays is beneficial to the Wash European Marine Site at this time.

- b. Are there any on-going investigations into any potential breaches of the covenants as set out in the lease agreement? – Eastern IFCA may have had reason to expire the lease on the grounds breaches of the lease agreement, if this was the case, officers would consider the potential to not grant a transfer of the lease.
- c. Any other environmental issues – The marine environment is naturally dynamic; as of yet unforeseen environmental issues may have occurred to the extent that it would be beneficial to the integrity and viability of The Wash that the lease is expired.
- d. Any other issues the Authority feels is pertinent to deciding the outcome of the break-clause.

All of the above will be considered by the Authority at a Regulation and Compliance Sub-Committee to determine whether or not to transfer a lease. Should the sub-committee conclude to NOT allow a transfer of the lease;

ACTION b –The lease will be retired and Eastern IFCA will arrange with the family of the deceased a time to remove any shellfish remaining on the lay holding – including if the family do not wish to retain the shellfish in which case the shellfish will enter the regulated fishery.

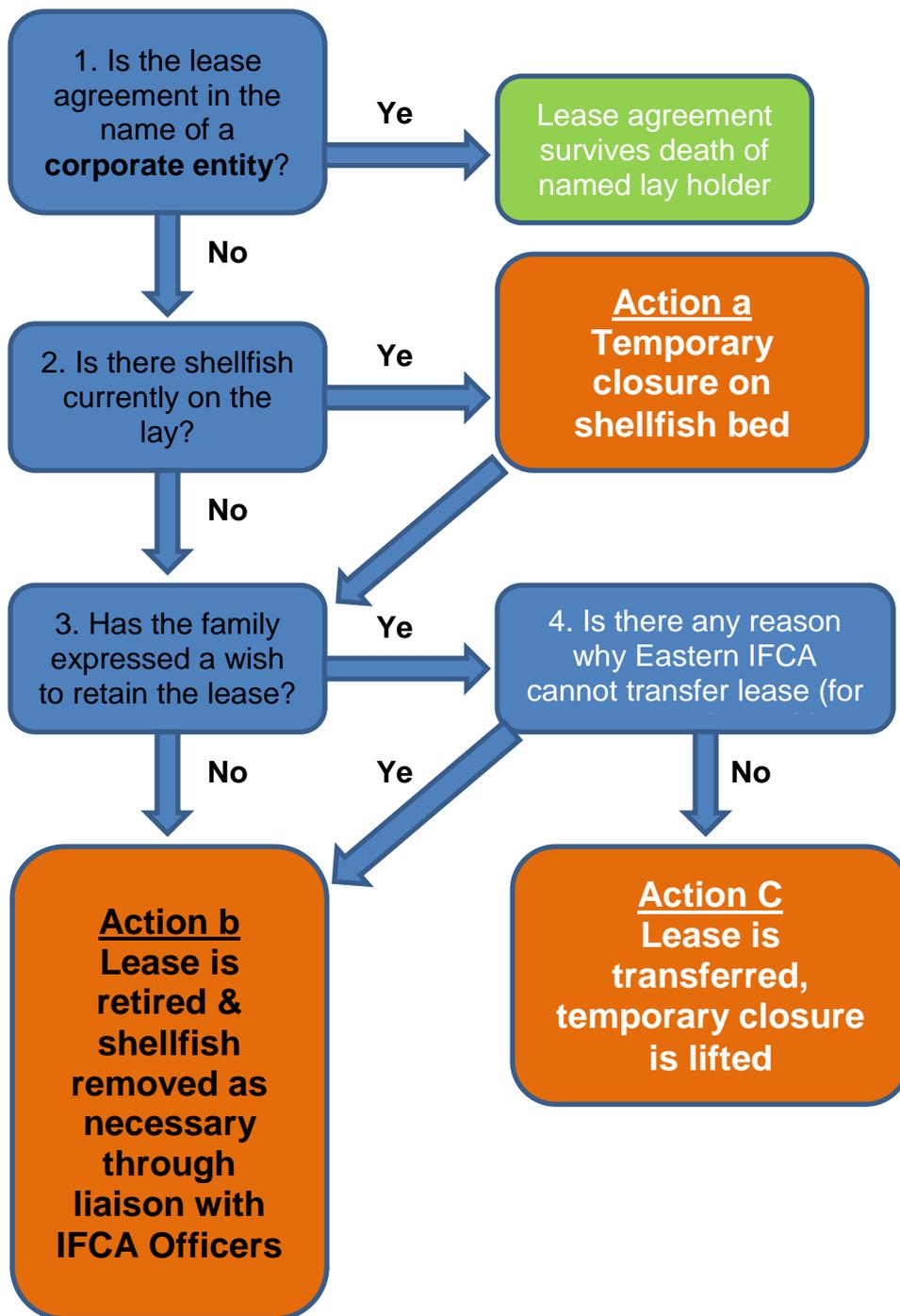
In the case where the sub-committee concludes to allow a transfer of the lease;

ACTION c – Subject to Article 6(2) of The Wash Fishery Order (1992) the sub-committee will effectively grant a new lease to the proposed family member (for duration equal to the time remaining on the original lease). This may include a requirement to request written consent of The Minister.

Summary

In undertaking the process presented, Eastern IFCA will maintain the security of shellfish deposited within the several fishery and apportion WFO shellfish leases in a manner befitting the circumstances in the situation where a lease holder has died.

Annex 1 – agreed process for determining outcome of WFO shellfish lease agreement break clause



Annex 3 - Mitigation measures

Eastern IFCA will use its monitoring program SWEEP⁴ to detect changes in two indicators of grazing pressure – chlorophyll and meat yields (see box 1). It is proposed that if these metrics reach a certain level over a certain time period it will trigger management action in the form of a reduction in stocking density of lays.

The rationale is that, should natural variability of primary production reach certain low levels whereby it is unlikely to be able to sustain the biomass of shellfish in The Wash; a reduction of the biomass of cultivated shellfish would be enforced proportional to the amount required to make up the shortfall in primary production.

There is considerable potential cost of removing mussels from lays prior to them having reached marketable size and a large degree of uncertainty regarding the potential for cultivated mussels to have an impact on wild shellfish through competition of food resource. As such, trigger levels will reflect only a significant decrease in food availability.

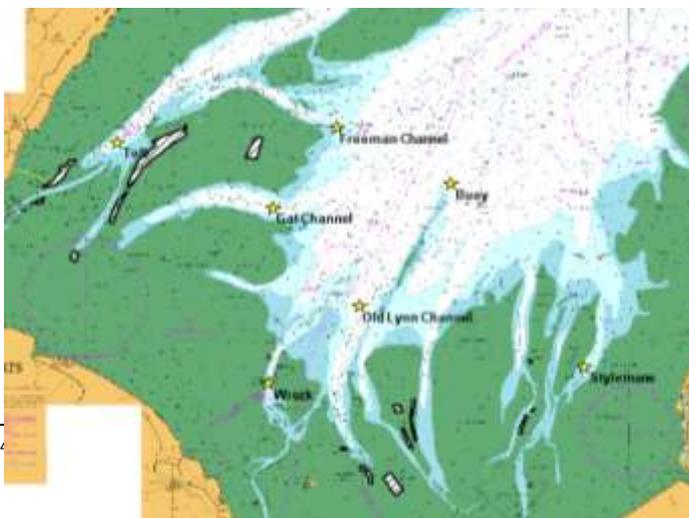
Box 1. Indicators

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

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

There are three elements to this process;

1. Monitoring of chlorophyll and mussel condition at three sites in The Wash (fig.1);



2. Assessment of grazing pressure taking into account current stocking density of mussel lays; and

3. Reduction in permitted stocking density of lays based on an assessment of grazing pressure, including the removal of mussel where stocking densities are already too high.

1 - Monitoring

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

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

Phase 1 – Thresholds

The data collected through SWEEP thus far (from 2010 to 2013) has been assessed. Meat yields vary across the three sites – generally the mussels collected from the Wreck site have a greater meat yield than the Toft and Thief site. Growth rates and condition of mussels will vary across The Wash due to natural variability and factors such as immersion time and temperature (which are also likely to vary across sites). With regard to mussel condition, it is proposed that sample site specific trigger levels should be imposed to reflect this variability.

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

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

The suggested trigger levels are as follows:

Site	RFU	Meat yield
Wreck	<0.2	$<11.5\%$
Toft	<0.2	$<9.0\%$
Thief	<0.2	<8.7

Table 1. monthly trigger levels for the three monitored sites

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

If the trigger levels are reached again in the following month, another grazing pressure assessment will be undertaken and the proportion reduction required to balance estimated primary production and grazing pressure will be estimated. Lay holders will be informed that, they may need to reduce stocking density in a maximum of two months' time.

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

Justification

Mussel condition

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

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

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

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

Mussels have been shown to lose condition after spawning (Okumus and Stirling 1998). However this is more pronounced in larger individuals. Mussels in the size range 45-50 mm do not show such a pronounced reduction in condition – this is reflected in the data from sampling in The Wash where no trends have been observed⁵ (size range for samples is 45-50mm). In addition, mussel condition is thought to reduce in relation to both temperature and food availability between October and March – mussels losing 30-50% of their flesh weight (Dare & Edwards 1975).

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

Mussels will lose 30-50% of flesh weight through the seasonal variations and as a result of spawning (Dare & Edwards 1975) and can survive a loss of flesh weight (through starvation) of up to 78% (Kautsky 1982). Therefore, trigger levels for each site reflect a reduction in meat yield in the range of 78-50%. Currently, the minimum recorded meat yield at each site represent values within this range (Wreck = -50.9%, Toft = -66.8%,

⁵ Ref research report

Theif = -63.6%) when compared to the highest recorded meat yield – thus producing a precautionary threshold. For all of the sites, reductions in meat yields represent a loss of condition greater than that which is considered 'normal' but can be recovered from if these conditions are not prolonged.

Phytoplankton concentration

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

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

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

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

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

Summary

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

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

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

2. Grazing pressure assessment

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

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

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

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

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

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

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

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

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

Mechanics of this model is presented below.

Table 2 – indicative parameters for grazing pressure model

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

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

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

All quantified shellfish within The Wash (43,640 tonnes of mussel and 19,319 tonnes of cockle)			
Concentration of chlorophyll (Chl ug L ⁻¹)	Estimated standing stock of phytoplankton (ug)	Time (hrs) to reduce standing stock of phytoplankton to zero	
		Grazing rate of shellfish* chl ug ind ⁻¹ hour ⁻¹	
		Low	High
0.5	6.25E+11	2372.954	196.6707872
2	2.5E+12	9491.817	786.6831487
5	6.25E+12	23729.54	1966.707872

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

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

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

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

Limitations

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

Nutrient recycling – Bivalve beds are thought to have a nutrient recycling role which is likely to stimulate primary production. Asmus and Asmus (1991) found that potentially significant increases in primary production were the result of nutrient recycling by filter feeding molluscs. In addition, Cugier et al (2010) suggests that understanding the feedback due to the mineralisation of biodeposits is crucial to fully evaluate the role of

filter feeders on primary production. By not including this in the model presented above, the estimated impact on the standing stock of phytoplankton is likely overestimated.

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

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

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

Grazing pressure in The Wash – Eastern IFCA has a limited understanding of the current grazing pressure of organisms in The Wash outside of those which are quantified during surveys (i.e. cockle and mussel surveys). Of potential significance are the razor clams (*Ensis* sp), slipper limpets and polychaetes. Determining the contribution of the quantifiable bivalve stocks to grazing pressure is an important element to determining the overall grazing pressure. At present, a cautious estimate of 50% is used when comparing to cell doubling time. This is potentially an overestimate.

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

3. Limiting stocking density of lays

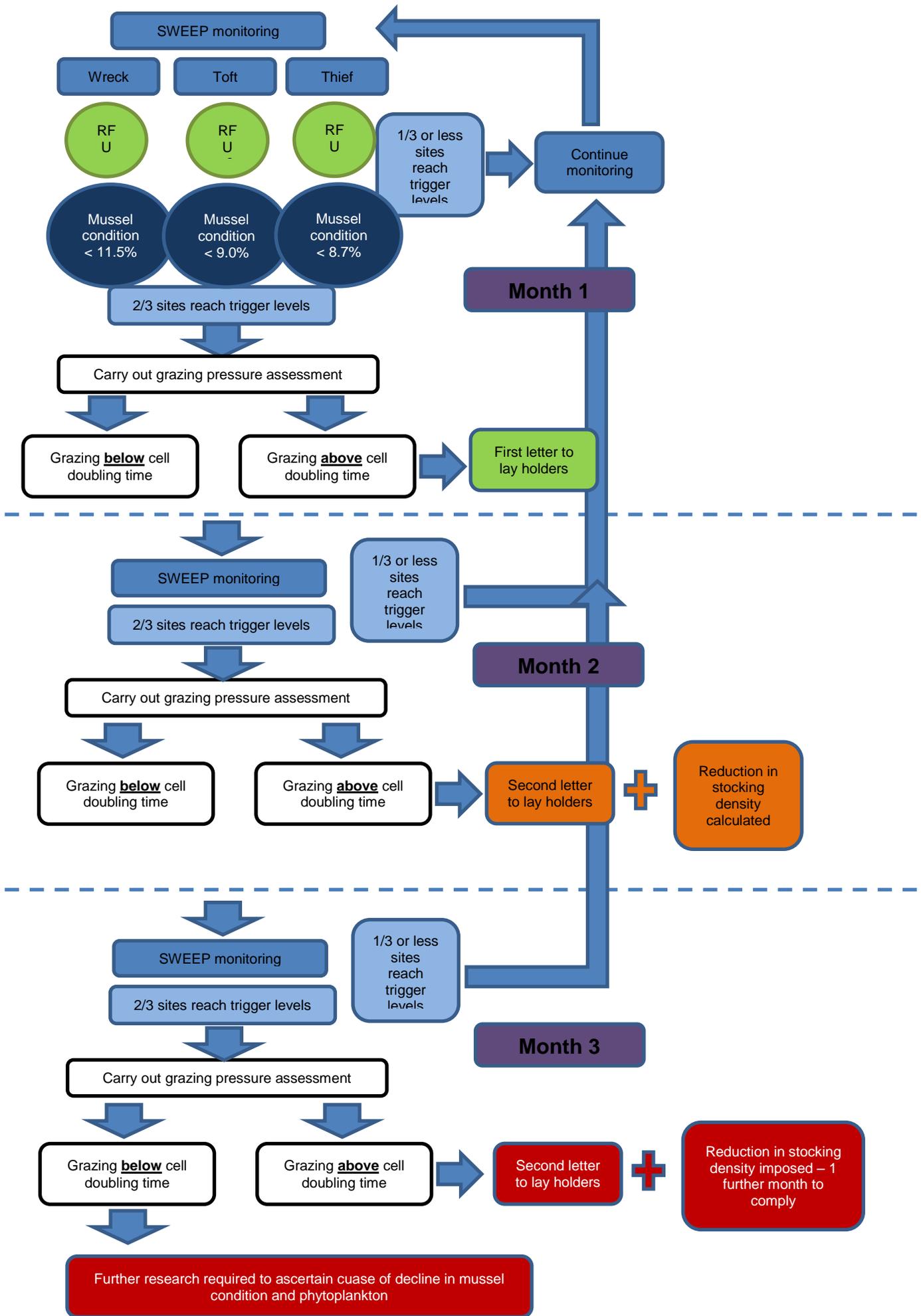
Where trigger levels have been met consecutively for three months and grazing pressure calculations have determined a shortfall in primary production against the grazing pressure assessment, stocking density will be reduced in accordance with the shortfall.

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

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

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

If trigger levels are met for a third month, a grazing pressure assessment will be carried out. Findings will be used to impose a stocking density limit for lay holders who will be given a further month to comply.



References

- Asmus R M, Asmus H,. 1991 Mussel beds: limiting or promoting phytoplankton? Journal of Experimental Marine Biology and Ecology: 148, 215-232
- Bayne B L, Iglesias J I P, Hawkins A J S, Navarro E, Heral M, Deslous-Paoli J M,. 1993 Feeding behaviour of the mussel, *Mytilus Edulis*: Responses to variations in quality and organic content of the seston. Journal of the Marine Biological Association UK: 73, 813-829
- Cugier P, Struski C, Blanchard M, Mazurié J, Pouvreau S, Olivier F, Trigui J R, Thiébaud,. 2010 Assessing the role of benthic filter feeders on phytoplankton production in a shellfish farming site: Mont Saint Michel Bay, France. Journal of Marine Systems: 82, 21-34
- Inglis G J, Hayden B J, Alex H R,. 2000. An overview of factors affecting the carrying capacity of coastal embayments for mussel culture. National Institute of Water and Atmospheric Research Ltd: Report: CHC00/69.
- Kamermans P,. 1993 Food limitation in cockles (*Cerastoderma edule* (L.)): Influences of location on tidal flat and of nearby presence of mussel beds. Netherlands Journal of Sea Research: 31, 71-81
- Kotta J, Møhlenberg F,. 2002 Grazing impact of *Mytilus edulis* L. and *Dreissena ploymorpha* (Pallas) in the Gulf of Riga, Baltic Sea estimated from biodeposition rates of algal pigments. Annales Zoologici Fennici: 39, 151-160
- Newell C R, Wildish D J, MacDonald B A,. 2001 The effects of velocity and seston concentration on the exhalant siphon area, valve gape and filtration rate of the mussel *Mytilus edulis*. Journal of Experimental Marine Biology and Ecology: 262, 91-111
- Riisgård H U, Kittner C, Seerup D F,. 2003 Regulation of opening state and filtration rate in filter-feeding bivalves (*Cardium edule*, *Mytilus edulis*, *Mya arenaria*) in response to low algal concentration. Journal of Experimental Marine Biology and Ecology: 284,105-127
- Riisgård H U, Poulsen L, Larsen P S,. 1996 Phytoplankton reduction in near-bottom water caused by filter-feeding *Nereis diversicolor* - implications for worm growth and population grazing impact. Marine Ecological Progress Series: 141, 47-54
- Shulte E H,. 1975 Influence of algal concentration and temperature on the filtration rate of *Mytilus edulis*. Marine Biology: 30, 331-341
- Smaal A C, & Haas H A,. 1997 Seston Dynamics and Food Availability on Mussel and Cockle Beds. Estuarine, Coastal and Shelf Science: 45, 247-259
- Smaal A C, Prins T C, Dankers N, & Ball B,. 1997 Minimum requirements for modelling bivalve carrying capacity. Aquatic Ecology: 31, 423-428
- Strayer D L, Caraco N F, Cole J J, Findlay S, Pace M L,. 1999 Transformation of freshwater ecosystems by bivalves. BioScience: 49, 19-27

Strohmeier T, Dunker A, Strand Ø, Aure J,. 2008 Temporal and spatial variation in food availability and meat ratio in a longline farm (*Mytilus edulis*). Institutional Repository of the Institute of Marine Research.

Theisen B F,. 1977 Feeding rate of *Mytilus edulis* L. (Bivalvia) from different parts of Danish waters in water of different turbidity. *Ophelia*: 16, pg-pg

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 15

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Bass Stock Management

Report by: Philip Haslam, Chief Executive Officer

Purpose of report

To present Authority members with recommendations for proposed regional Bass stock management solutions

Recommendations

Members are asked to:

- **Agree to the implementation of the recommended short term Bass management measures.**
- **Direct the CEO to develop and implement the short term measures as part of the overall byelaw review process.**
- **Direct the CEO to investigate the viability of the medium term measures and report back to the Authority**

Background

At the 16th Eastern Inshore Fisheries and Conservation Authority meeting of 29 Oct 14 Members approved a proposed Bass management strategy to limit exploitation of adult stock and to introduce protection to juvenile stock. In particular, Members resolved to:

- **Introduce incremental regional Bass management measures** – to drive the development and implementation of local management measures, developed in step with national measures, to ensure that bass stocks receive appropriate management focus at the earliest opportunity. This would encompass localised actions in the Eastern IFCA district, district wide management and the development of schemes with neighbouring IFCAs to preserve stocks.

Candidate management measures could include:

- Establishment of regional nursery areas
- Bag limits for recreational anglers
- Mandatory Catch and Release
- Spatial or temporal closures
- Vessel or fishery catch limits
- Mandatory catch returns
- Capacity limits
- Carcass tagging
- Effort control (days at sea constraints)

SWOT analysis

Members would wish to be reminded of the previous analysis regarding the strengths, weaknesses, opportunities and threats of introducing regional bass management measures

Strengths

- Shows recognition of the problem.
- Allows for demonstrable fisheries management action.
- Allows for stakeholder consultation in deriving management measures that will be understood and adhered to.
- Ownership and pace of implementation rests with Eastern IFCA

Weaknesses

- Brokering collective approval of measures may cause delays in implementation.
- May not solve the overall issue.
- Will take time to formulate, communicate and deliver.
- In acting unilaterally, Eastern IFCA may become isolated and "out of step" with national and international bass management initiatives.

Opportunities

- Manages risks.
- Measures can be designed to fit the local context and be applied and managed with agility
- Supports delivery of 'leading IFCA' status
- Dovetails with Byelaw review project work.
- Working with both the RSA and commercial fishing communities may assist in binding all parties closer together.

Threats

- Significant additional workload across Research and Protection employees
- Speed of delivery may be reduced by emergent, more pressing work
- Sets a clear expectation within stakeholder community which, if not progressed to their satisfaction, may prompt criticism and increased workload to respond to correspondence.

Management Measure Development

Following the direction received from Members, Officers have conducted a thorough analysis of the issues at hand with the intent of identifying the most appropriate management measures to implement in the short, medium and long term time scales.

Full analysis is included at Appendix 1

As a result of the analysis the following measures were identified as the most pragmatic and timely means to limit the exploitation of stocks and to protect stocks during the vulnerable juvenile stages of their lifecycle:

- Measures to be implemented in the short term (Short Term measures)
 - Prohibition of recreational netting activities to limit Bass exploitation throughout the district.
 - Introduce a 'bag limit' to the Recreational Sea Angling sector throughout the district.
 - Restrict exploitation of bass within rivers and estuaries by identifying and protecting regional Bass Nursery Areas
 - Increase Minimum Landing Size (MLS) to adhere to contemporary scientific evidence.
- Measures to be implemented in the medium term (Medium Term measures)
 - Introduce temporal closures to protect spawning aggregations at sea through joint work with MMO and KE IFCA
 - Explore potential to introduce catch limits to commercial vessels
 - Explore an increase to the minimum mesh size of commercial fishing nets targeting Bass to 100mm minimum
 - Influence industrial sources to adopt best practice to reduce pressure on stocks
 - Influence coastal and estuary flood management work to reduce pressure on stocks through habitat loss

National context

The protection of Bass stocks remains on the national political agenda and was recently debated in Parliament. The fisheries Minister's intervention in the debate is included at Appendix 2 for Members' information. The key messages are:

- there is recognition (including from 2 ex Fishery ministers) that action should have been taken some time ago and the lack of action has delivered us to the current position.
- there is an apparent willingness to press the issue hard in Brussels to deliver cogent management action.
- IFCA's have a part to play in managing Bass stocks

International context

At the December 2014 meeting of EU fisheries ministers the issue of Bass stock management was not tackled and the debate was postponed until early 2015. Recent indications from Defra suggest that a package of emergency measures has been proposed which seek to tackle many of the major issues, including commercial targeting of spawning stocks, affecting the sustainable exploitation of Bass stocks. If successfully negotiated and implemented, these measures will contribute significantly to a wholesale reduction in the most damaging bass exploitation.

Rational for proposed short term measures

1. Prohibition of recreational netting activities to limit the exploitation of Bass throughout the district.

The Authority has previously resolved to follow a Bass management strategy whereby exploitation is managed and juvenile stocks are protected. In pursuit of the former, it is proposed that the practice of recreational netting is restricted throughout the district. There is a substantial but un-quantified amount of recreational netting activity in the

district. Practitioners span a wide cross section from recreational fishermen to the leisure boat community and at times the density of nets in Eastern waters is notable. Recreational fishing using nets is particularly prevalent when densities of Bass spawning stock are moving through the Eastern IFCA waters en route to spawning grounds both within and outside our district. This activity is not regulated and is a significant factor in the overall exploitation of sea fisheries resources within the district.

Analysis of the current Eastern IFCA fixed engine byelaw⁶ shows that it does not provide a mechanism to manage this activity and will be amended as part of the byelaw review process. It can be argued that the catch rate from recreational netting activity is disproportionate to the needs of the individual and can provide the impetus for illegal activities such as the selling of catch through unregulated means. This measure also aligns with the intent for recreational anglers to enjoy a day's fishing to "fill their plate" but is intended to dissuade them from seeking to "fill their freezer" or the freezer of a third party. This measure will not affect any individual's right to fish for Bass using other means such as rod and line. This measure will not affect commercial fishermen using nets as long as such nets are appropriately marked and identifiable.

Once the level of recreational netting in the district has been quantified, a permitting scheme will be explored to enable the proportionate management of this fishing activity.

2. Introduction of a 'bag limit' to the Recreational Sea Angling sector throughout the district.

In accordance with the strategy to reduce exploitation of adult stock, a bag limit will ensure that only appropriate quantities of bass are removed from the fishery, with others being returned alive to the water. The proposal for a "2 fish per day" limit has been developed in consultation with recreational sea anglers and is accepted as a reasonable limit. This measure aligns with both national and international intent to limit exploitative effect of recreational fishing.

3. Restrict exploitation of bass within rivers and estuaries by identifying and protecting regional Bass Nursery Areas.

In pursuit of the strategy to introduce protection to juvenile Bass stocks, particularly school bass which range further and wider within the nursery grounds, it is proposed to introduce spatial closures to limit commercial fishing activities. Analysis has shown that there are significant stocks of nursery and school bass throughout the rivers and estuaries of the district. The initial intent was to seek to identify "hot spots" where both localised spatial closures could be applied and some commercial fishing opportunities preserved. Following detailed analysis it has been shown that it is not possible to localise stocks to this extent which drives a requirement for to focus spatial closures at the macro level of whole rivers and estuaries.

This measure will help preserve juvenile stocks which should in turn, recruit to the fishery and thereby bolster the overall adult biomass.

⁶ Byelaw 13 – Fixed engines; Authorisation of placing and use - "The placing and use of fixed engines for taking sea fisheries resources is prohibited in any waters inland of the Eastern Sea Fisheries Joint Committee's district. For the purposes of this byelaw 'fixed engine' means any net or other implement for taking or facilitating the taking of fish secured by anchors, fixed to the soil or made stationary in any other way or any net placed in tidal waters and left unattended. This byelaw does not prejudicially affect the historic rights of several fishery described in Section 6(a) of the Sea Fisheries Regulation Act 1966."

4. Increase MLS to adhere to contemporary scientific evidence.

The debate regarding an appropriate MLS for bass has been ongoing for several years. The key driver for change is that slow maturing species are vulnerable to over-fishing as individuals may be caught before they can spawn and it is widely acknowledged that the current MLS of 36cms, introduced 25 years ago, is not right. It does not introduce the desired effect of protecting adult stock until they have reached spawning maturity and have spawned at least once. Bass are slow growing and do not mature until they are approximately 31-35 cm in length for males and 40-45 cm for females; it can take from 4 to 7 years to reach this size.

An MLS increase will limit both the exploitation of immature stock and introduce protection to smaller adults until such time as they reach sexual maturity

Risk

The proposed short term management measures detailed above will contain unwelcome news for some. There is likely to be a degree of challenge to the evidence base and the empowerment of the Authority to take such steps. There will likely be some who will seek to compare the relative effects on commercial and recreational fishermen citing an unreasonable burden being placed upon one or the other.

It is acknowledged that some of the measures will be considered too restrictive and too blunt a tool to deliver the required effect. In particular, some recreational netsmen will feel aggrieved that their pastime is being affected even though they may not be targeting bass. The counter argument is that the parlous state of bass stocks drives a need for comprehensive action to limit exploitation and introduce greater protection to spawning stock biomass and juveniles. This means that even those who may not be targeting bass will have to play their part in rebuilding bass stocks.

Authority members are encouraged to focus upon the MaCAA requirement '*to seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way*' and that by taking demonstrative management action to both protect and limit the exploitation of bass stocks, members will be seeking to assure the long term viability of fisheries stocks and fishing activity in the district.

Publication/Communication

Management measures will be published by using regional and national media.

Conclusion

Bass stocks nationally and internationally are under severe pressure and could be subject to total collapse in the short term if management action is not forthcoming. The debate over Bass management on the national and international level appears to be faltering placing an increased onus upon local fisheries managers to do the right thing. The management options identified in this paper are presented with the recommendation that they are approved wholesale and implemented in the short term. This will constitute tangible evidence of how the Authority is delivering against the requirements of MaCAA and is not content to stand by while the stocks collapse.

Background documents

Eastern IFCA Bass Management paper dated 29 Oct 14

Appendices:

1. Management option analysis
2. Transcript of George Eustace comments - Parliamentary debate on Bass management 3 Dec 14.

Management Option Analysis

Issue	Pressures	Treatments	Candidate Measures
Decline in Bass stocks regionally, nationally and internationally	Loss of habitat		
	<ul style="list-style-type: none"> • Salt marsh reduction/management • Dredging effect 		<ul style="list-style-type: none"> • Introduce temporal and spatial closures • Introduce Bass Nursery areas
	Industrial interaction	<ul style="list-style-type: none"> • Reduce loss of habitat • Reduce industrial interaction • Limit exploitation 	<ul style="list-style-type: none"> • Introduce bag limits • Introduce vessel catch limits
	<ul style="list-style-type: none"> • Sea water intakes (direct/indirect impact) Commercial fishing Recreational Sea Angling (shore and boat based) Unregulated recreational netting	<ul style="list-style-type: none"> • Protect nursery bass (0-1 yrs) • Protect juveniles (school bass) 	<ul style="list-style-type: none"> • Impose mandatory catch and return • Increase MLS • Increase commercial net mesh size • Introduce method controls • Introduce carcass tagging

Assumptions

- Evidence base to support judgement that stocks are critically hazarded is sufficient to support management action even though it lacks local fidelity.
- EIFCA is empowered and authorised to take such management action as necessary to deliver Bass stock management and promote sustainable exploitation of regional aggregations.
- EIFCA can act independently to influence exploitation activity and introduce increased protective effect on nursery and juvenile bass

- The extant Bass Nursery Area (BNA)⁷ legislation can be amended to include additional nursery areas.
- Any wider national and international regulation will be developed in a similar timeframe to allow EIFCA measures to be developed coherently.

Policy decisions

- Intent to identify and implement 'quick win' management measures in the short term (0-6 months)
- Intent to identify and develop other management measures in the longer term (0-12 months)
- Intent is to establish a twin track approach to exploitation management and introduction of protective effect. If there is a need to refine this approach, the weight of effort will concentrate on managing exploitation in the first instance.
- Intent is to dovetail local management measures develop with wider national and international regulation. If however, the timeframe for wider regulation slips, EIFCA will proceed independently keeping Defra and neighbouring IFCA's informed.

EU position

In June 2014, the International Council for the Exploration of the Sea (ICES) released scientific advice on the stock on seabass in the North East Atlantic, and confirmed that this stock has been in rapid decline since 2012. Furthermore, STECF has evaluated the protection of seabass by national measures in place and, in general, has deemed them ineffective. Seabass is a late maturing and slow growing species whose fishing mortality currently quadruples the maximum sustainable yield (MSY) levels. It is therefore appropriate to establish fishing opportunities for this stock in the form of fishing effort and catch limits, which should target the main sources of fishing mortality, i.e. pelagic trawling and recreational fishing. A new set of measures are proposed for the protection of the stock of seabass in the North East Atlantic. In June 2014, the International Council for the Exploration of the Sea (ICES) released scientific advice on this stock, which has been in rapid decline since 2012. In view of the worrying situation of this stock, which could be on the verge of collapse, fishing opportunities are proposed in the form of fishing effort and catch limits, which should target the main sources of fishing mortality, i.e. pelagic trawling and recreational fishing. This includes a new Annex IIE to the proposed regulation, which is to be completed with information being sought from Member States.

⁷ SI 1990 No 1156 (as amended)

Management measure effectiveness analysis

Management measure	Restrictive effect on exploitation activity	Introduction of greater protective effect	Target Population		Implementation method
			Nursery (0-1 yrs)	Juvenile (School)	
Introduce BNA	✓	✓	?	✓	SI amendment <ul style="list-style-type: none"> • Can it be amended? • How long? • risk Emergency byelaw Byelaw <ul style="list-style-type: none"> • Use of existing byelaw XIII in Breydon Water • Use byelaw review to re-shape byelaw XIII?
Introduce spatial/temporal closures	✓	✓	✓	✓	Emergency byelaw Byelaw
Introduce bag limits to RSA community	✓	✓	✓	✓	Vol. CoC(?)
Introduce vessel catch limits (quotas) to commercial sector	?	✓	✗	✓	Emergency byelaw
	For quotas to be				

	meaningful they need to reflect demands of the business model which may make them unworkable				Byelaw
					Vol. CoC(?)
Introduce catch and return measures	✓	✓	✗	✓	Emergency byelaw
	NB. Unintended mortality on release	Judged possible through education on revised RSA fishing methodology (eg. Use of lures)			Byelaw
					Vol. CoC(?)
Introduce mandatory catch returns information	✗	✗	✗	✗	
	To be included as a condition on any proposed management measure to provide contemporary data.				
Increase Minimum Landing Size (MLS)	✓	✓	✗	✓	Emergency Byelaw
	NB. Localised bass population demographic & size will make MLS increase <i>de facto</i> spatial closure for some stocks.				
Introduce carcass tagging	✗	✗/✓	✗	✓	Byelaw
		NB. Theory vs Practice			
Increase commercial net sizes	✗ on effort	✓	✗	✓	Byelaw
	✓ on effectiveness of effort				
Introduce fishing method controls	✓	✓	✗	✓	Emergency byelaw
					Byelaw
					Vol. CoC(?)

Management measures risk/benefit analysis

Measure	Cost		Risk	Benefit
Bass Nursery Areas	Delivery	L	<ul style="list-style-type: none"> • Non compliance • Evidence challenge • Lack of stakeholder support • Alienation of stakeholders • Loop holes <ul style="list-style-type: none"> ○ Other species exploitation & by-catch ○ Shore based exploitation 	<ul style="list-style-type: none"> • Easily understood • Eased enforcement • Immediate effect • Demonstrable management action • Reputational effect • Dovetails with MPA work
	Research	M		
	Enforcement	L		
Spatial/Temporal closures	Delivery	L	<ul style="list-style-type: none"> • Non compliance • Evidence challenge • Lack of stakeholder support • Alienation of stakeholders • Spatial closures with eastern district rivers and estuaries will prompt protest. • Temporal closures to protect spawning aggregations requires close coordination with adjacent IFCAs and MMO which precludes rapid development of measures 	<ul style="list-style-type: none"> • Easily understood • Eased enforcement • Immediate effect • Demonstrable management action • Reputational effect • Dovetails with MPA work
	Research	M/H		
	Enforcement	L		
Bag limits	Delivery	L	<ul style="list-style-type: none"> • Non compliance • Lack of RSA stakeholder support • Relatively slow impact • % Mortality in released fish 	<ul style="list-style-type: none"> • Distinct protection of school bass • Introduce limits to exploitation • Less stringent regulation • Potentially more acceptable to stakeholders • Will have an effect on semi professional fishermen
	Research	L		
	Enforcement	L		
Vessel limits	Delivery	L	<ul style="list-style-type: none"> • Non compliance • Lack of commercial sector support • Mortality of released fish • Local quota management complexities 	<ul style="list-style-type: none"> • Reduces exploitation • Potentially rapid effects
	Research	H		
	Enforcement	H		

			<ul style="list-style-type: none"> • ‘Top grading’ behaviours • Effective enforcement 	
Catch and Return	Delivery Research Enforcement	L L M	<ul style="list-style-type: none"> • Ineffective as a management measure • Lack of RSA stakeholder support • No immediate impact • % Mortality in released fish • Ability to effectively enforce 	<ul style="list-style-type: none"> • Distinct protection of school bass • Less stringent regulation • Potentially more acceptable to stakeholders • Will have an effect on semi professional fishermen • Acknowledges contemporary scientific advice • School bass protected • Limits exploitation • Drives greater selectivity in commercial effort • Delivers marketable fish • In step with other regulators • Greater acceptability • Greater understanding • Eased enforcement • Greater selectivity • Tech con mechanism understood and accepted • Eased enforcement
Minimum Landing size	Delivery Research Enforcement	M M/H M/H	<ul style="list-style-type: none"> • Non compliance • Loop holes • Limited effect • Complexity with discard ban 	
Increase in mesh size	Delivery Research Enforcement	M H M/H	<ul style="list-style-type: none"> • Non compliance • Evidence challenge • Limited effect • Does not affect exploitation effort • Complexities regarding catch composition and target species • Potential for unintended consequences to commercial business models • Potential for challenge • Non compliance 	
Method control	Delivery	M	<ul style="list-style-type: none"> • Non compliance 	<ul style="list-style-type: none"> • Protects school bass

(unregulated netting) Research L • Opaque community
 Enforcement M/H

- Limits exploitation that is not able to be quantified but is considered to be significant.
- Tackles a key exploitation behaviour that already causes tensions
- Preserves Commercial/RSA support
- Dovetails with other MPA work

From the table above the following measures identify themselves as the most cost effective to be delivered with the greatest effect and benefit

- Method control (unregulated netting)
- Bag limits for RSA sector
- MLS increase
- Spatial closures to protect juvenile stock

Measures above will deliver:

- Proportionate response
- Takes action against known problem supported by emerging evidence
- Requires more support from sectors than selling to them
- Delivers against MaCAA 09 duties.
- All sectors have to yield

Factor analysis

Measure	Factor	Information/Action Requirements
Spatial closures to protect juvenile stocks	Evidence	Bass population <ul style="list-style-type: none"> • Presence

- Abundance
- Density
- Time period
- Location
 - extent/range

Exploitation

- Method(s)
- Landings
- Rate of effort
- When
- Where

Communications

RSA sector
 Commercial fishing sector
 Industrial sector (Sizewell etc.)
 Estuary Groups/NGOs
 District/Borough councils
 NE/EA
 Wider Public

Regulation

Use of existing SI
 Emergency Byelaw

Enforcement

Bye Law
 Existing patrols
 Increased presence/deterrence patrols(?)

Measures of Effectiveness

Develop measures to assess

- Reduction in exploitation
- Protective effect

Method control (unregulated netting)

Evidence

Location
Exploitation

- When
- Where
- How much/how many
- Method
 - Attended
 - Unattended

Communications

(some stakeholder communication will form Intel feed)

Catch
Sales
RSA sector
Commercial sector
Buyers
Public
Estuary Groups/NGOs
District/Borough councils
NE/EA
Police?
Leisure/Charter boat community
Emergency byelaw
Byelaw
Intel led patrols
Reduction in incidence of netting
Stakeholder feedback
Proportionate limit
RSA community

Regulation

Enforcement
Measures of effect

Other regulatory authorities

Introduce bag limits

Evidence
Communications

NGOs

		Police(?)
	Regulation	District and Borough Councils
	Enforcement	Emergency byelaw
	Measures of effect	Routine patrols
		Adherence to bag limit
Increase MLS	Evidence	Regional stock recovery
		Contemporary scientific evidence of maturity of fish
	Communications	Commercial
		RSA
		Leisure/Charter boat community
		Buyers
		Other Regulators
		NGO
	Regulation	Wider public
	Enforcement	Emergency byelaw
	Measures of effect	Routine patrols
		No incidence of undersized fish being landed
		Recovery of regional stocks
		Commercial netsman increasing net mesh size to decrease by catch of undersized fish.

Parliamentary Bass Stock Management debate 3 December 2014

George Eustice (The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs; Camborne and Redruth, Conservative)

I begin by congratulating my hon. Friend George Hollingbery on securing this timely and important debate. We have heard many good speeches and there is clearly a basis for quite a degree of cross-party consensus. We have certainly had our quota of former Fisheries Ministers contributing to the debate.

Sea bass is one of the most valuable species we have, both to recreational sea anglers, as many hon. Members have pointed out, and to some of our fleet of commercial fishing boats under 10 metres. We are at a pivotal moment for bass management. It is clear from the latest scientific advice from ICES that European bass stocks are in a very vulnerable state. In June 2014, ICES advised that, for us to be at maximum sustainable yield in 2015, total landings of bass in the Irish sea, Celtic sea, English channel and southern North sea for commercial and recreational fisheries should be no more than 1,155 tonnes, but last year the EU fleet commercial landings total was 4,132 tonnes, and estimated landings from the recreational sector were a further 1,500 tonnes—a total of more than 5,600 tonnes. To get to the ICES recommendation would require an 80% cut from 2013 landings.

Commercial bass fisheries in those areas include an offshore fishery on spawning fish in the channel and its approaches from January to April. That is conducted mainly by large mid-water pair trawlers, which take about a third of the total commercial landings. There is also an inshore fishery, which operates mainly between spring and autumn, using trawls, fixed and drift nets, and hooks and lines, and which involves a number of under-10-metre vessels.

Sadly, as many hon. Members have pointed out, the decline of bass is not new news, as ICES has made previous recommendations for reduction in mortality from fishing exploitation. The UK has been challenging the European Commission since 2012 to take urgent action to address that decline, and we have been at the forefront of promoting technical conservation measures for bass. It is worth reflecting on some of those proposals.

Initially, the European Commission suggested a total allowable catch for bass, but we firmly believe that that is not appropriate because a new TAC is established on track records of catches, so there is a real danger that that would simply lock in a continuation of the current exploitation pattern, which now needs to change radically. A further disadvantage of setting a TAC for bass is that it would take no account of the efforts a number of member states have already unilaterally taken to limit commercial catches, which would be unfair to those countries.

Bass is a migratory species. The ICES information clearly shows that a significant proportion—about 30%—of mortality occurs in spawning areas to which all member states have access. That is why, despite the frustrations of trying to get agreement at European level, the Government have consistently pressed, first and foremost, for technical conservation measures at EU level as the most effective way of ensuring that the bass stock recovers. Let me set out the position we have argued for in the last couple of years, because I think that will deal with many of the questions put by my hon. Friend the Member for Meon Valley.

We have consistently argued, for instance, that there should at the very least be restrictions on targeting bass from January to April and that those should apply in the key offshore spawning aggregation areas. We have also recommended the phasing out of pair trawling to target bass. In addition, we have argued for catch limits for all EU vessels fishing for bass, to cap total effort and to avoid displacement away from pair trawling to other types of commercial fishing. Finally, we have suggested

further work on the identification and protection of bass nursery areas in all member states, which will build on the progress we have made in the UK.

As many hon. Members have pointed out, the current EU proposal is far from perfect, but I think we should welcome the fact that the European Commission has at least proposed interim measures for 2015 in advance of the development of a long-term management plan for bass. However, let me be absolutely clear: I do not believe that the current proposed measures are sufficiently ambitious, nor do they achieve the right balance between the measures required for the commercial and recreational sectors, as my hon. Friend Mr Walker pointed out.

When the proposals are discussed in a couple of weeks' time at the December Fisheries Council, I will seek to agree a more effective package of measures to finally start the recovery of the bass stock. That will be

challenging, as December Council negotiations always are, but it will be a UK priority for this Council to extend and strengthen the proposals to limit commercial fishing. We will also seek a two-fish bag limit for recreational anglers, rather than the one-fish limit that has been proposed. I have talked to anglers' representatives, and they recognise they have a role to play. They completely recognise that there should be a bag limit, but it would be wrong to have a harsh one-fish bag limit for anglers while having relaxed restrictions on the commercial sector.

A number of hon. Members pointed out that there are things we could do nationally, and I want to reflect on some of those points. On minimum landing size, once we have seen the shape of any deal that comes out of the December Council, I will consider what supplementary measures we could introduce nationally. I understand the frustration of Mr Bradshaw, whose successor not only did not bother seeing his proposal through, but actually got the knife out and cut it. Revoking an order that has already been signed is quite a big step. Listening to him and others, I was reminded of the episode of "Yes Minister" in which Jim Hacker goes to talk to his previous opposite number to try to get the lowdown on an issue. There could be a role for minimum landing size. In the first instance, I want the negotiating team to focus on getting the deal right at European level. We should also recognise that just increasing the minimum landing size without changing net gears, for instance, might be counter-productive, and we could end up with more discards, which is something we want to avoid. Finally, a minimum landing size does not deal with the problem of mortality caused by pair trawling taking place in spawning areas. That typically affects larger fish, but it can be particularly damaging.

A number of hon. Members mentioned the report the Centre for Environment, Fisheries and Aquaculture Science carried out in 2012, which was commissioned by my predecessor, my hon. Friend Richard Benyon. Internally, it was dubbed the Benyon report. I can assure hon. Members that there is no conspiracy—it is not being hidden, and it has already been shared with the Angling Trust and other stakeholders. In the light of the comments made by a number of hon. Members, I will make sure we lodge the report in the House of Commons Library after the debate so that all hon. Members can see it.

George Hollingbery (Meon Valley, Conservative)

May I just confirm that the Minister is talking not about the sea angling report, but about the report into the study of minimum landing size?

George Eustice (The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs; Camborne and Redruth, Conservative)

It was the CEFAS report of 2012, which was commissioned by my hon. Friend the Member for Newbury, which we will put in the Library. That report concluded that a minimum landing size increase applied at European level could have quite a big impact, but pointed out that, because a lot of fishing mortality is caused by foreign vessels in UK waters, a unilateral, UK-only minimum landing size would not necessarily have the desired effect.

Ben Bradshaw (Exeter, Labour)

I urge the Minister, in the last couple of minutes, to discuss the designation of bass as a recreational species.

George Eustice (The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs; Camborne and Redruth, Conservative)

I was going to try to cover some of the other points.

First, on the value of recreational angling, I should declare an interest, because my brother fishes bass in Cornwall and regularly lobbies me on bass stocks. Recreational angling has a significant economic value. At the end of last week, I met Charles Clover, the chairman of the Blue Marine Foundation, to discuss its latest report, and we recognise the value of that. What I am sceptical of, though, is having an outright ban on commercial fishing sectors, as has been trialled in Ireland. Anecdotally, there are quite a lot of reports of by-catch in Ireland and of bass having to be discarded because they are a by-catch of other fisheries. Ireland has found that, in the absence of a wider European agreement, just having a total ban on commercial fishing has not been effective.

My hon. Friend Mr Jenkin talked about me facing down legal advice. I can say that, on this issue, unlike on many other issues in DEFRA, where there is frequently legal advice about European law, I have not come across any particular legal advice that is an obstacle. This issue is much more about the best way to deliver the outcome we want, and although there are difficulties and frustrations in negotiating such outcomes at a European level, we can start by having effective measures at that level, which we can then supplement with our own national measures, and I intend to do both those things.

In the 10 seconds I have left, let me say that we should recognise the role that IFCAs can play. Many already implement their own measures to protect bass. Finally, I will be going to Europe and to the Fisheries Council to get the best deal we can.

The full transcript can be viewed at

<http://www.theyworkforyou.com/whall/?id=2014-12-03a.115.0&s=speaker%3A24933#g136.0>

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 16

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Whelk Stock Management

Report by: Luke Godwin, Project Officer/IFCO and Julian Gregory, D/CEO

Purpose of report

To appraise Authority members of the increase in fishing effort for whelk (*Buccinum undatum*), the high risk of over-exploitation of stocks and to seek agreement on the introduction of management measures under an emergency byelaw.

Recommendations

Members are asked to:

- **Note the contents of the paper**
- **Agree in principle to the implementation of management measures through a permitting scheme**
- **Agree that the urgent requirement for management of whelk fisheries warrants application of the emergency byelaw procedure to introduce immediate measures,**
- **Agree to establish a Whelk Emergency Byelaw Panel as outlined in the paper**
- **Delegate authority to approve the introduction of management measures for whelk to the Whelk Emergency Byelaw Panel.**

Background

Edible whelks (*Buccinum undatum*) are a commercial species of gastropod with a limited market within the United Kingdom. However, there is significant demand from Asian markets and as a consequence national whelk landings are increasing, with whelk making the top ten list of species landed during 2014 (MMO landings figures 2014). This means that the fishery has significant value (estimated to be in excess of £13m annually), which is having an impact upon the level of fishing effort.

The only national management measure applicable to whelk is a minimum landing size, which is widely considered to be lower than necessary to be effective. There is no total allowable catch or quota.

Overfishing is thought to be a threat to the development of whelk fisheries (Nicholson & Evans 1997) probably because of their slow development to sexual maturity (2-5 years) and slow development of eggs (Cadee et al 1995).

Anecdotally, whelk fisheries in Eastern IFCA's district have historically shown a cyclical 'boom-bust' trend with high fishing intensity (likely driven by market demand and good prices) leading to over-fishing and depletion of stocks.

Whelk landings have been increasing within Eastern IFCA's district since 2010. In 2014 there was the largest increase in the number of vessels engaged in the fishery in Eastern IFCA's district since 2010, Landings did not increase on the 2013 figures, which indicates that catch per unit effort may be decreasing and that the species may be being over-fished.

It is suggested that management measures are required to prevent detrimental impacts to the whelk fisheries throughout the district. The measures proposed are candidate measures which will require further development.

Drivers to Implement Whelk Management Measures

The Strategic Assessment undertaken late in 2014 identified that whelk fisheries within Eastern IFCA's district are of concern regarding fisheries sustainability. This is primarily due to four factors:

- The manner in which landings and effort have increased since 2010
- The apparent sudden drop in catch per unit effort during 2014
- The biology of the whelk making it susceptible to over-fishing
- The lack of data concerning the whelk stocks within the district.

These factors are discussed in more detail below.

Increased Landings by Weight

During the period 2010 – 2013 the landed weight of whelks increased more than six fold (667%) according to MMO data (fig.1). In 2014 however, MMO landings data indicates landings have levelled off. It should be noted that 2014 landings data from the MMO is provisional and that landings estimates for at least the last two to three months of the year may be underestimates, albeit probably not significantly.

In contrast to the overall trend, landings into the ports of King's Lynn and Boston have increased from 10.5 tonnes in 2013 to 226 tonnes in 2014, an increase of more than an order of magnitude in a single year. Fig.2. indicates that landings were on track to increase again in 2014, with the landed weight per month greater in 2014 than in 2013 up until June, with a 58% increase in landings up to that point. However, landings in June, July and August were well below that of the previous year. This may be as a consequence of a water temperature increases occurring earlier in 2014 than in 2013 (as 2013 landings don't drop off until August/September), which is potentially within natural variation.

With landings data indicating a drop off in the rate of increase in landed weight in the period 2013-2014 and reports of further increases in effort (see below) this could be an indication of a reduction in catch per unit effort, which could indicate that whelk fishing is at or past maximum sustainable yield.

Increase in Effort

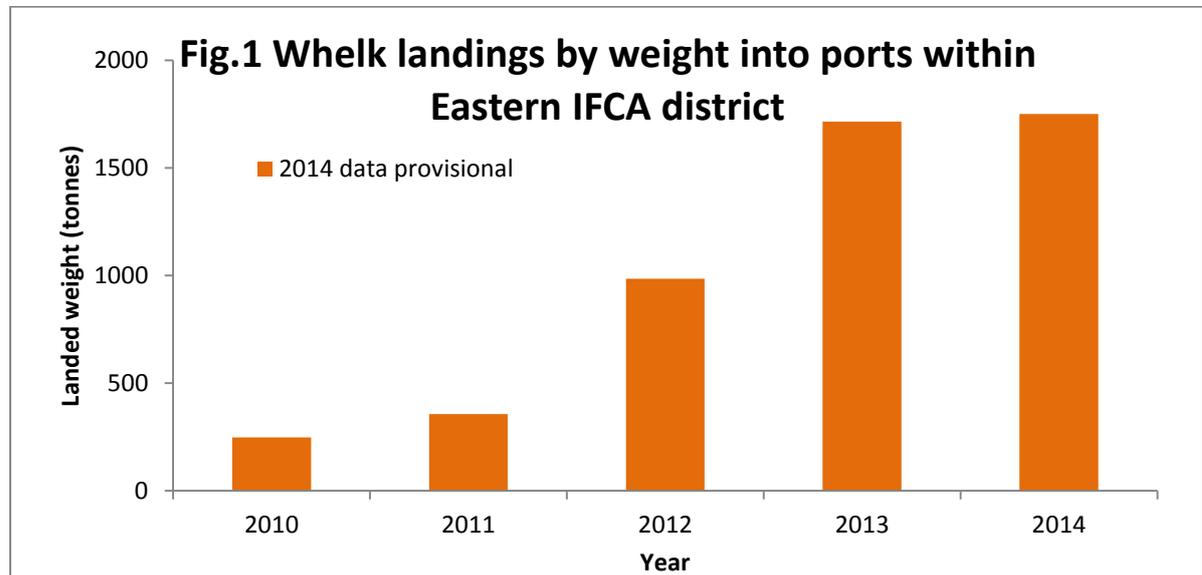
The number of vessels engaged in whelk fishing in the Eastern IFCA district has increased substantially during the period 2010 – 2014 (Fig.3), having almost quadrupled from 10 vessels (2010) to 39 vessels (2014). In addition, the number of vessels engaged in whelk fishing in The Wash is thought to have

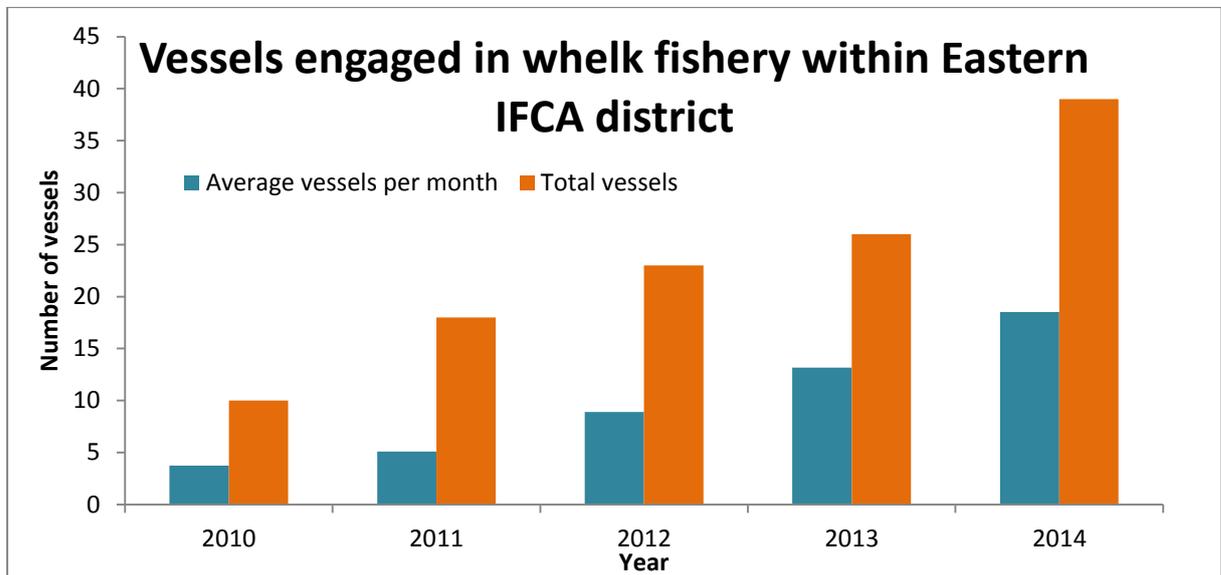
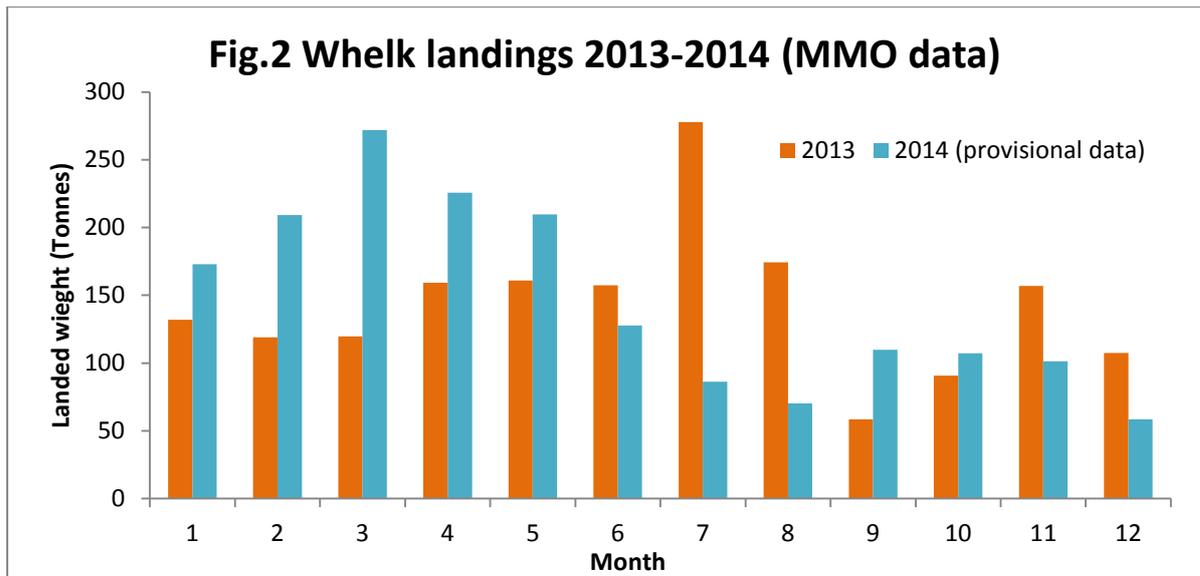
increased from 3 (2013) to 7 in 2014. The level of effort may be higher and/or increase further as Area based officers have heard anecdotal reports of pot numbers increasing and interest from fishers not currently engaged in the whelk fishery.

Given that, in the period 2010-2013, landings increased at a greater rate than vessel numbers, it is likely that vessels are also deploying additional pots and/or larger vessels are beginning to engage in the whelk fishery which carry and deploy greater number of pots (anecdotally 3-4000+). This is potentially a reflection of larger, nomadic vessels being displaced from other IFCA districts as a result of the introduction of whelk management measures. In particular, at least three vessels from the port of Brixham have landed whelk at ports within Eastern IFCA's district in 2012 and 2013 having not done so in 2010 or 2011.

Of concern is the continued increase in the number of vessels engaged in 2014 whilst the landed weight for the year has not increased on 2013. This may be an indication that catch per unit effort has reduced during 2014, which would be an indicator that exploitation is above maximum sustainable yield. This is a key driver for the urgent introduction of management measures.

It should be noted that these declines in catch per unit effort may be due to natural variation in whelk availability, poor weather (and as such a lack of fishing) or less pots being used during this period. However, taking a precautionary approach seems appropriate given the regional and national increase in whelk landings over the last four years.





Whelk Biology

Whelks have life histories which make them particularly vulnerable to overfishing. In addition, there is likely to be variation in key biological characteristics between fisheries within Eastern IFCA's district.

Size/age at sexual maturity – The size or age at which whelk reach sexual maturity (i.e. spawning age) is thought to vary greatly even over relatively small spatial scales (Fahy et al 1995, Fahy et al 2000). A recent Cefas report has found growth rates and size at age to vary greatly throughout the UK (Lawler 2014). There is a general consensus that, the current minimum landing size (45mm) is below that of most whelk fisheries in the UK (Lawler 2014) and Europe (Fahy et al 2000).

Removing pre-spawning individuals can have a dramatic detrimental effect on stock sustainability particularly when the minimum size is far below the size of maturity. A limited evidence base suggests that the size of maturity for the

Southern North Sea is around 77mm (Lawler 2014). The age of maturity ranges from 3 to 8 years.

Low mobility – Tagging studies have revealed that adult whelks are relatively sedentary. In addition, larval development is known to occur within the eggs and as such, larval stages do not disperse (as in many other species such as mussels and cockles).

As a result of this limited mobility, individuals removed through fishing mortality have to be replaced by recruitment from within the local stock.

Data Deficiency

Eastern IFCA currently has no information regarding the status of the whelk stocks within its districts. Conventional stock surveys have not been conducted up to this point and there is currently only indicative information available on effort and landings, which cannot be used for the purpose of determining maximum sustainable yield (using catch per unit effort). Data on the number of pots deployed and soak time is crucial to determining MSY.

In addition, whelks have been found to form 'stocklets' with distinct biological characteristics including, for example, size and age of maturity. There are likely to be several distinct fisheries throughout the district and as such, detailed fishing location data will also be required.

Management Objectives

Given the identified risks to the whelk fishery management measures are required to ensure sustainability and it is suggested that clear objectives for these management measures are required. The suggested objectives are:

1. Acquisition of accurate effort and landings data to build models to work towards maximum sustainable yield
2. Introduce effort management
3. Cap effort until such a time as assessments can determine appropriate levels of effort
4. Prevent or reduce removal of pre-spawning whelk

With the exception of objective one⁸, Eastern IFCA currently has no ability to implement management measures pursuant of these objectives in a regulatory manner.

Potential Management Measures

Officers have reviewed measures implemented by other IFCA's for the management of whelk fisheries. In addition, a comprehensive internal discussion drawing on the experience of IFCOs together with limited informal discussions with some of the industry involved in whelk fisheries have taken place.

In accordance with the Regulation and Compliance Strategy non-regulatory measures have been considered in the first instance. It is suggested that, given the high risk to the fishery, regulatory measures will be required in this case. Voluntary codes of conduct, whilst often successful, leave too much risk of non-compliance in a fishery which may already be close to over-exploitation.

In addition, the 'do nothing' option has been considered: Without implementation of measures to cap effort and increase minimum landing size, the current trend of increased effort may continue to the effect that the whelk fishery collapses due to over-fishing. Even if levels of effort remain at current levels, without an increase in minimum landing size, whelk stocks will almost certainly suffer from over-fishing at some point. The risk of this occurring is particularly high given that Eastern IFCA currently has no indication of the health of whelk stocks within the district.

Mechanism - Permitting Byelaw

A permitting byelaw would allow Eastern IFCA to most effectively manage what is likely to be spatially variable and dynamic whelk fisheries. Given that Eastern IFCA currently has limited data available to make management decisions regarding stock and environmental sustainability, a mechanism which allows for adaptive management is necessary to cater for development of these evidence bases.

This model has recently been successfully implemented by Kent and Essex IFCA and permit schemes have been used historically by several other IFCA's for the management of potting-based fisheries in general.

⁸ Byelaw 11 – development of shellfish fisheries: could be implemented to acquire more detailed fishing effort although this is considered less effective compared to proposed new management measures.

Recommended Measures (Permit Conditions)

Measures pursuant of each objective are presented below:

Objective 1 - *Acquisition of accurate effort and landings data to build accurate models to work towards maximum sustainable yield.*

Measure 1 - A requirement for those engaged in whelk fishing to provide detailed effort, landings and location data to the Authority.

Effect – Eastern IFCA does not have the resources to commit to conventional whelk stock assessments (i.e. potting surveys to estimate biomass, density, extent etc.). As such, the only feasible method for determining appropriate levels of fishing effort is to use a maximum sustainable yield model. This would also be in-keeping with obligations as per the Marine Strategy Framework Directive and the ethos of the Common Fisheries Policy.

Limitations – Officers cannot foresee any threats or limitations to this measure.

Objective 2 - *Introduce effort management*

Measure 2a – Implement pot limitations

Effect –Cap effort to prevent further increases in whelk landings. The intention is to prevent over-fishing of stocks to the extent that stocks collapse. If implemented as a permit condition, pot limitations can be altered in accordance with best available evidence to promote a productive and stable fishery and will have a long term effect on the sustainability of the fishery.

An additional effect would be to prevent larger, nomadic vessels (which carry several thousands of pots) from utilising inshore areas. This is of particular concern to the industry.

Limitations – Officers currently have limited information on which to base a pot limitation i.e. what the initial number of pots allowed should be. Consequences of setting the limitation too high are sudden collapse of the stocks due to over-fishing whereas setting the limitation too low could result in stifling development of the fishery. It is relevant to note that Kent and Essex IFCA have a limitation of 300 pots per vessel, which appears to have been commercially viable in their district, whereas local Wash fishers tend to suggest that 800-1000 pots per vessel are necessary to be viable.

In addition, there is likely to be an interaction between any measure which increases the minimum landing size and catch per unit effort i.e. more effort is potentially required to capture the same amount of larger whelks.

In order to enforce a pot limitation condition, a requirement to mark pots with appropriate information will be required.

Measure 2b – Gear marking

Effect – Gear will be required to be clearly marked and tagged with tags provided by the Authority and paid for by the permit holder. Tags will allow IFCOs to identify strings of pots. Where gear is not tagged, gear will be hauled, checked and seized. The Kent and Essex model has been effective in this regard.

Limitations – There are initial concerns from within the industry that this will promote certain bad behaviours.

Objective 3 – Cap effort until such a time as assessments can determine appropriate levels of effort.

Measure 3 – Limit the number of permits

Effect - To have the effect that fishing effort has been capped, a cap on the number of permits issues will also have to be in place. This is to prevent additional vessels from entering the fishery and increasing effort. It is proposed that, vessels which have landed whelk in the Eastern IFCA district during the period 2010 – 2014 inclusive would be eligible for a permit.

Objective 4 – Prevent or reduce removal of pre-spawning whelk.

Measure 4a - Increase minimum landing size

Effect – Increasing the minimum landings size more in line with the size of maturity will prevent the landings (removal from the system) of pre-spawning individuals. If implemented as a permit condition, this can be amended in line with best available evidence. An increase to between 50 and 77mm is being considered based on relevant literature. A Cefas study conducted in Wells found that the size of maturity was around 62mm (at 3 years of age). It appears that an MLS of 65mm may be appropriate.

Limitations – Whilst there is a general consensus throughout the literature that the current minimum landing size is ineffective, the appropriate size to increase it to is less certain. The Cefas report which conducted pertinent research at Wells shows variability even within the samples from Wells.

An increase in minimum landing size could also have a disproportionate effect on the local industry, which anecdotally supplies the market demand for small whelks, at or just above the minimum landings size. It should be noted however that several industry representatives have also called for an increase in minimum landing size in the past.

In addition, the enforcement resource required to measure the vast quantities of whelks being landed would be very large. It is suggested that, in combination with an increase in minimum landing size, a minimum spacing for sorting gear should be implemented to compliant the increase.

Measure 4b – Minimum spacing for sorting gear

Effect – Gear used for sorting catch from whelk pots includes sorting grids and sorting bars. The spacing (between bars) and grid size will determine the size of whelks retained and landed and which are returned to sea. By implementing a restriction on the minimum spacing allowed for this gear will compliment an increase in minimum landing size, preventing the removal of undersized individuals.

Limitations – gear used for sorting whelks will retain or release individuals based on their smallest dimension (i.e. width rather than length). There is a limited relationship between length (on which minimum landings size is based) and width of whelks and a limited evidence base to determine an actual minimum spacing size.

Additional Measures

In addition to the primary measures outlined above there may be benefit to adding other measures that would help with effective management of the fishery. These include:

- Requirement for vessels to carry Inshore Vessel Monitoring Systems
- Requirement for whelk pots to have escape holes of a specified dimension
- Temporal or spatial closures (to allow for spawning periods or brood stock)
- Vessel size limits

Establishment of Whelk Emergency Byelaw Panel

Recognising the requirement to act in a timely manner it is suggested that a Whelk Emergency Byelaw Panel, with the delegated ability to approve emergency byelaws, is established. The panel would comprise the Chair (of the Authority), the Vice Chair (of the Authority), the Chair of the Regulation and Compliance sub-committee, the Chief Executive Officer and the Deputy Chief Executive Officer.

The purpose of the panel would be to consider the suitability of proposed measures and to confirm the emergency byelaw.

Emergency Byelaw Criteria

The Marine and Coastal Access Act (2009) makes provisions for the introduction of emergency byelaws (section 157). These byelaws can be enacted without confirmation of the Secretary of State and are intended to cater for situations where there is an urgent need and the situation was not reasonably foreseeable.

The rationale to support the introduction of an emergency byelaw is as follows:

1. **There is an urgent need:** Whelk's biology makes it particularly susceptible to over-fishing. With sudden increases in the number of vessels engaged in the fishery (from 24 to 39) over the last year not being reflected in increases in the landed weight of whelk for the same period, there is the potential that catch per unit effort has dropped significantly. Without measures to at least cap effort, the whelk fishery is at immediate risk of being effected by over-fishing.
2. **The issue could not have been reasonably foreseen:** Whilst the number of vessels engaged in the whelk fishery and the landings had been growing steadily over the last four years there was no indication that the whelk fisheries were at immediate risk of over-fishing. The sudden increase in effort in the period 2013-2014, a potential reduction in the catch per unit effort and the anecdotal reports of additional vessels and whelk pots entering the fishery were not foreseeable.

In the event that an emergency byelaw is made work will commence to establish a permanent byelaw in due course.

Conclusion

It is clear that the level of effort in the whelk fishery has increased substantially and there is new evidence that would appear to indicate that exploitation may have reached, or even exceeded, maximum sustainable yield. As a minimum there is cause for concern over the sustainability of the fishery and if left unchecked over exploitation could lead to the collapse of stocks in the near future.

As well as being detrimental to the marine ecosystem, collapse of whelk fisheries would have economic impacts on the local fishing industry. It would be likely to result in instability of inshore fishing with fishers having to rely on other stocks. In the case of whelk fishermen this would primarily be cockle, mussel and shrimp in The Wash and crab and lobster throughout the district.

References

CEFAS (2011). DEFRA Science and Research Projects MF0231- Determination of the size at maturity of the whelk *Buccinum undatum* in English waters. - (CEFAS)

Fahy, E., Masterson, E., Swords, D. and Forrest, N. (2000). "A second assessment of the whelk fishery *Buccinum undatum* in the southwest Irish Sea with particular reference to its history of management by size limit", Irish Fisheries Investigations No. 6, Marine Institute 2000.

Fahy, E., Yalloway, G., Gleeson, P. (1995). Appraisal of the Whelk *Buccinum Undatum* Fishery of the Southern Irish Sea With Proposals for a Management Strategy (Irish fisheries investigations series B)

Cadee, G., Boon, J., Fischer, C., Mensink, B., and Ten Hallers-Tjabbes, C. (1995) Why the whelk (*Buccinum undatum*) has become extinct in the Dutch Wadden Sea. Netherlands Journal of Sea Research: 34, 337-339.

Vision

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Action Item 17

17th Eastern Inshore Fisheries and Conservation Authority Meeting

28 January 2015

Report by: A Bakewell – Head of Finance

Revision of WFO Licence Tolls

Purpose of report

To consider inflation of licence tolls in line with inflation for 2015-2016 financial year.

Recommendations

Members are recommended to:

- **Agree to the inflation of WFO licence tolls in line with inflation for the period 1st April 2015 to 31st March 2016**

Background

At the EIFCA meeting on 22nd January 2012 members agreed to increase the WFO licence tolls by inflation each year for a period of five years, at which time there would be a further review. It was further agreed that the position would be reviewed each January to ensure that it remained valid.

Members are asked to agree to the inflation of WFO licence tolls in line with inflation as stated by the Office of National Statistics in February 2015, the figure will be rounded up to the nearest £5. For information purposes the level of increase for the 2014/2015 financial year was 2%.

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Action Item 18

17th Eastern Inshore Fisheries and Conservation Authority Meeting

28 January 2015

Report by: P J Haslam, Chief Executive Officer

Stakeholder community meeting report

Purpose of report

The purpose of this report is to brief members on the autumn round of stakeholder community meetings conducted during November 2014.

Recommendations

Members are recommended to:

- **Note the contents of this report**
- **Agree that a request for a Wash Fishery Order Entitlement to be granted exceptionally cannot currently be accommodated.**
- **Direct the CEO to review the moratorium on issuing WFO Entitlements to test previous factors and assumptions and to report back to the Authority.**

Background

Eastern Inshore Fisheries and Conservation Authority is mandated to engage with stakeholders. As part of this requirement, community meetings are held on a periodic basis as a mechanism to assure information flow between respective parties. The meetings are held in Boston, King's Lynn, Wells, Cromer and a selected location in Suffolk. To date, the majority of those who attend are from the inshore fishing community despite the event being advertised across the breadth of Authority stakeholders. Attendance is extremely variable and ranges from no attendees to full house depending upon the issues of the moment.

Report

The autumn series of meetings was carried out in Boston, King's Lynn, Wells and Cromer. The table at Appendix 1 below captures the detail of the discussion and the actions arising.

The key concerns are:

- The decline of shellfish stocks in the Wash, particularly mussels and the likely causal factors
- The pressure on finite shrimps stocks from disproportionate fishing effort
- The increase in Whelk fishing effort district wide
- The sustainability of the North Norfolk crab and lobster fishery

Actions

Encouragingly, none of the topics mentioned were unrecognised by officers and the majority are already being actively considered. Both the shrimp and whelk fisheries will be subject to scrutiny and management action in 2015 through the byelaw review process. The North Norfolk crab and lobster fishery has been subject to a bespoke study since April 2013 and has been proven to be operating within maximum sustainable yield requirements. This is kept under constant watch and when the trigger to act is reached, management action will be developed in full consultation with the local fishing community.

The request for an exceptional approval to issue a Wash Fishery fishing entitlement is less straightforward. At the meeting it was agreed that his application to be exceptionally considered for an "early, out of turn" allocation would be offered to the Authority for their consideration. The person on question applied for an Entitlement in July 2006 and currently is eighth in line to receive one should the moratorium on issuing entitlement be lifted. It is assessed that despite his perceived need for the fishing opportunity and his sense of injustice that all in the Boston fishing community bar him can exploit the Wash fishery, there are few other driving factors to bolster the request.

This request does raise a wider issue regarding the moratorium on the issue of WFO entitlements. It would be appropriate for officers to conduct a review of the situation, to test whether previous driving factors and assumptions are still valid, and to report back to the Authority with recommendations. In light of this, Members are recommended to resolve that the request cannot currently be accommodated and be placed on hold pending the review.

Conclusion

Members should note the positive contributions made by the fishing community in Cromer who have identified the issues and are willing to offer constructive solutions to enable the co-management of the fishery. The experience of the Cromer meeting proves that there is utility in conducting stakeholder engagement meetings and they will be continue to be employed where the need arises.

Background documents

Eastern Inshore Fisheries and Conservation Communication and Engagement Plan 2014-15.

APPENDIX 1

Stakeholder community meeting Nov 14 output

Location	Attendees	Topics	Actions
Boston	1 part time fisherman	Access to Wash fishery order entitlement	Request to be taken to the Authority for members to exceptionally consider issuing a WFO entitlement to fish early and out of turn to a stakeholder who owns a vessel but is not permitted to take part in the Wash fishery
Kings Lynn	7 Commercial fishermen comprising 6 owner/operators and 1 contracted skipper	<ul style="list-style-type: none"> • Aggregate effect of current fishing activity on grounds • Natural competition between mussels and cockles and the effect on stocks • Lack of scouring effect on mussel beds to clear mussel mud, thereby promoting growth and the likely causal factors • Tensions between static gear and shrimp fishing operations including a bid for more grounds. Discussions spanned: <ul style="list-style-type: none"> ○ Restrictions on power of vessels to limit exploitation ○ Revision of minimum net mesh size to achieve greater 	<ul style="list-style-type: none"> • Mussel regeneration study already gauging effects. • The Wash shrimp fishery will be subject to scrutiny in 2015 as part of the byelaw review process which has

		<p>selectivity</p> <ul style="list-style-type: none"> ○ Review of fishing days to consider limitations to reduce pressure on stocks <ul style="list-style-type: none"> • Whelk fishery developments including consideration of pot limits to control exploitation and reduce pressure on stocks. • Concerns over number of lobster and crab pot within the Wash 	<p>identified it as being in the Top 3 of pressing issues</p> <ul style="list-style-type: none"> • The Whelk fishery throughout the district will be subject to scrutiny in 2015 as above.
Cromer	<p>17 Commercial fishermen 2 crab processors Natural England MMO Cefas</p>	<ul style="list-style-type: none"> • Diving safety with regard to divers operating without surface marker buoys and the potential for conflict with fishing vessels and fishing operations • The North Norfolk Fishing Association and Norfolk Independent Fishing Association had combined to offer the following proposals for management measures for crab and lobster fishery <ul style="list-style-type: none"> ○ Raise crab minimum landing size (MLS) by 2mm immediately 	<ul style="list-style-type: none"> • Not specifically an EIFCA remit but Area Officers will be used to remind/alert divers to local fishing operations and best safety practice. Topic will be raised at meeting with regional MCA officers

		<p>and consider further incremental increases in due course</p> <ul style="list-style-type: none"> ○ Introduce whelk MLS ○ Mandate the marking of gear in accordance with MCA guideline ○ Restrict vessel size in the crab fishery to less than 10m overall length ○ Introduce pot limitations. The final limit to be established but 300 pots per man was discussed. ○ Request for greater interaction with IFCA officers ○ Request for greater enforcement effort with regard to unlicensed vessels operating at a commercial level ○ Introduce mandatory requirement for escape hatches in static gear. ○ Introduce carriage restriction on meta crabs both inside and outside 6nms limit ○ Introduce lobster maximum landing size 	<ul style="list-style-type: none"> • All the proposals offered were made with the caveat that they are a work in progress, have yet to be fully discussed with all fishermen and will need to be refined. • IFCA officers stand ready to discuss the proposal further once they have been ratified by the membership of the Associations and other parties with vested interests.
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Information Item 20

17th Eastern Inshore Fisheries and Conservation Authority Meeting

28 January 2015

Report by: P J Haslam, Chief Executive Officer

Quarterly progress against Annual Plans

Purpose of report

The purpose of this report is to update members on progress towards the objectives established in the Annual plan.

Recommendations

Members are recommended to:

- **Note the contents of this report**

Background

Eastern Inshore Fisheries and Conservation Authority is mandated to produce an annual plan each year to lay out the expected business outputs for the year ahead. The plan for financial year 2014-15 was agreed by the Planning and Communication Sub-Committee on 26 February 2014 and published thereafter.

Report

The tables at the Appendix detail the progress against the key priorities set in the Annual plan for 2014-15

Conclusion

Following a very busy 2013 the pace has not eased and Authority officers are working hard to deliver across the breadth of business. There is a greater sense of driving the pace rather than reacting to a time scale imposed from elsewhere, which means that demands on staff and work tempo can be better managed to preserve morale and effective performance.

Background documents

Eastern Inshore Fisheries and Conservation Authority Annual Plan 2014-15.

APPENDIX 1

Quarterly Progress against Annual Plan

9 major priorities were established in 2014-15.

Major Priority	Progress	Comment
To continue investments in staff to preserve appropriate subject matter expertise		<p>Over the reporting period Officers have conducted training as follows:</p> <ul style="list-style-type: none"> • 2 Officers successfully completed the RN Marine Enforcement Officer course • 1 Officer attended a Biosecurity course • 12 Officers attended a 1 day science forum <p>A winter training programme for Enforcement officers is being developed to ensure competence and confidence in marine and fisheries legislation theory and practice.</p>
To complete the process of transition from Sea fisheries Committee to Inshore Fisheries and Conservation Authority		<p>The transition process will be complete by 31 Mar 15.</p> <p>Since the last report the key activity has been a two day management and leadership training session designed to embed and ensure understanding of the requirement for appropriate management procedures.</p> <p>Officers at the Supervisory level now have the correct empowerment and delegations to progress the delivery of routine outputs and to contribute to the development of changes to the operational design.</p>
To ensure that the conservation objectives of Marine Protected Areas in the region are furthered by delivering fisheries management measures for 'Amber and Green' designated features within European Marine Sites (EMS) within the mandated timeframe and formulating potential management measures for Tranche 2 candidate Marine conservation zones (MCZ)		<p>Progress since last report</p> <p>Activities related to implementing management measures</p> <ul style="list-style-type: none"> • 18 LSE/initial screening tests completed (in addition to 1,237 LSEs completed within "non-occurring interactions report" in September 2014). • 13 AAs/detailed assessments completed covering three EMSs. • Management measure discussions held for 1 SPA (bird disturbance in-combination effect on Stour & Orwell SPA) • HRA support documents (site summaries, fishing activity reports, site prioritisation reports and fishing impact reports) in

		<p>development by research and environment officers – 6 months completed of 18-month period allocated for HRAs and development of management measures</p> <p>Other relevant information</p> <ul style="list-style-type: none"> • Site visits undertaken in 2 EMS with EIFCA & site wardens • Fishing activity evidence-gathering ongoing • Monthly EIFCA/NE liaison meetings ongoing • IFCA/MMO/Defra/NE/EA HRA workshop attended • “Activity footprint” project proposal developed for consideration by ME IEG in January 2015 – aims to quantify scale of fishing pressures by different gears in each IFCA district. <p>Risks to delivery</p> <p>Description of any risks to delivering MPA management</p> <ul style="list-style-type: none"> • Large number of fishing/gear interactions requiring assessment and subsequent development of management measures means significant officer resource required for this project • Difficult to deliver large number of scientifically-robust assessments (in order to support evidence –based decisions) in short timescales • Lack of detailed conservation objectives in many sites reduces strength of assessment conclusions – potentially reducing IFCA confidence in requirement for management. • Recall of Natural England’s second data release has meant some assessments have been carried out using tentative data. Eastern IFCA officers in close liaison with regional NE officers in relation to supporting data gaps. • Clarity still required with respect to existing legislation for management of certain fishing activities (e.g. bait digging) within SSSIs that are also EMSs – to avoid duplication of regulation. KEIFCA and EIFCA in discussion with NE. Potential to affect approach for multiple gear/features interactions in multiple EMSs.
<p>To commence a comprehensive byelaw review process comprising of three stages:</p> <ol style="list-style-type: none"> 1. exclusion of byelaws not applicable or relevant to the Eastern IFCA District 2. like for like substitution of uncontested 		<p>Officers have developed an approach to the byelaw review that will adopt a progressive approach to fisheries management in the district as opposed to simply reviewing legacy byelaws. This was approved by the Regulatory and Compliance sub-committee (R&C) in November 2014 and involves the following elements:</p> <ol style="list-style-type: none"> 2. A three stage approach to developing new management

bylaws directly applicable to the Eastern IFCA District

3. development of complex or contested or new byelaws.

measures and subsequent enforcement activity:

- a. Introduction of a Regulation and Compliance Strategy setting out principles based upon knowledge, experience and national guidance. This was approved by R&C in November 2014
- b. Undertaking a Strategic Assessment of all fisheries and Marine Protected Areas within the district. It combines fisheries data and other evidence to identify fisheries and MPAs that require management measures or changes in management measures lists them for action in order of priority. The first assessment has been undertaken and approved by R&C in November 2014. It identified the Whelk and Bass fisheries as priorities for regulation and the Wash shrimp fishery as an emerging priority
- c. Enforcement risk assessment (annual) to guide activity via the TCG process. This is work in progress

3. Housekeeping exercise on legacy byelaws based upon:

- a. Removing most of inherited North Eastern Sea Fisheries Committee (NESFC) byelaws
- b. Removing defunct ESJFC byelaws
- c. Revising ESJFC byelaws that require amendment to make them relevant and effective (minor changes)
- d. Making ESJFC byelaws IFCA byelaws and extending to cover old NESFC territory

Work on the housekeeping exercise has commenced but is currently at an early stage. It should be noted that the approach adopted will roll on into subsequent years and will be the business model for regulation

		and compliance matters
To promote sustainable development through a project to rejuvenate previously productive fishing grounds		<p>The project has been delivered.</p> <ul style="list-style-type: none"> • The use of funding from the fisheries propagation funds was agreed with Wash based fishing associations. • The methodology and location was discussed and agreed with local industry representatives • An Invitation to Tender to provide boat services was issued and received 2 responses. • Permission to lay cockle shell as culch was brokered with the MMO • Field work to lay 92 tonnes was completed in late May • The sites are now being monitored to assess whether they are attracting mussel spatfall.
To balance the needs of all within the fishery by developing RSA strategy in light of A2012		The strategy has been drafted, consulted upon and published. Parallel work to engage regional partners from council level to individual RSA participants is ongoing.
To support the viability of industry by driving individual applications through the Wash Fishery Order shellfish lay allocation process		Delivered as detailed in MPA Sub committee report at Item 9.
To discharge responsibilities under the Wash Fishery Order (1992) and consider a review of its provisions		The scope of this objective is being considered and developed. It may be more productive to consider a medium to long term strategy for the Wash fishery and then to develop the tools to deliver that strategy, which would include a refreshed WFO, as opposed to a one dimensional re-write of an existing document. Options will be delivered to Authority members in due course.
To continue the Seagoing Assets Review and to procure the second enforcement vessel		<ol style="list-style-type: none"> 1. Following the decision to retain <i>FPV John Allen</i> plans have been developed to enhance her capability through a number of modifications. Subject to final approval by the Finance & Personnel sub-committee these will be undertaken in Feb/March 2015. 2. The procurement process for the second enforcement vessel is at the invitation to tender stage with the closing date being in mid-January 2015.

Subordinate Priority	Progress	Comment
To influence and shape the national inshore marine management debate and narrative.		Through attendance at national meetings and other fora.
To continue to advance the Authority's understanding of the species, habitats and activities occurring in the district.		In accordance with Research and Environment plan 2014-15
To contribute to 'Project Inshore'. This national project will assist the Authority by providing an independent assessment of the state of each major fish/shellfish stock within the Authority's district which will help inform the byelaw review process and future work of the Authority to ensure sustainable exploitation of these resources.		The Phase 3 report has been published following a consultation period. Phase 4 activity will be scoped with Project Inshore.
To contribute to data requirements to meet Marine Strategy Framework Directive commitments (particularly crab and lobster).		Ongoing crab and lobster bio sampling work.
To engage with marine planning issues, including consultations on marine licenses and developments and active participation in Commercial Fisheries Working Groups.		72 consultations completed this year to date. Responses to significant consultations now published on the website. Active participation in CFWG for East Anglia Offshore 1-4, Greater Gabbard, Galloper and Race Bank wind farms. Refer to agenda item 14
To continue to promote the work of Eastern IFCA through outreach events.		7 events attended. Trailer based office deployed on 3 occasions so far with very positive results. Stakeholder community meetings conducted in November
As a Directing body contribute to the activities and output of the Association of IFCAs.		Ongoing.

Key:

	Complete
	In progress
	No progress

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Information Item 21

17th Eastern Inshore Fisheries and Conservation Authority meeting

28 January 2015

Report by: Julian Gregory, Deputy CEO

Marine Protection Quarterly Reports

Purpose of report

To provide members with an overview of the work carried out by the Area IFCOs and the vessels, *RV Three Counties* and *FPV John Allen*.

Area/Vessel	Officer
Area 1 (Lincs & Kings Lynn)	Jason Byrne
Area 2 (Norfolk)	Adrian Woods
Area 3 (Suffolk)	Alan Garnham
<i>RV Three Counties</i>	Simon Howard
<i>FPV John Allen</i>	Simon Lee

Recommendations

Members are asked to:

- **Note the content of the quarterly reports from the Area Officers and the skipper of the research vessel Three Counties**

Background documents

Area Officers and Skippers quarterly reports for October to December 2014

Eastern Inshore Fisheries & Conservation Authority

From: Jason Byrne Fishery Officer (Area 1)
To: Julian Gregory
Date:
Ref: Quarterly Report Area 1
Monthly Report: Oct, Nov, Dec 2014

Area 1: Hale Sand – Kings Lynn

General

This quarter has seen a mixture of fishing activities from longlining for Cod & Whiting, rod & lining from vessels & shore, netting from the beach and shore, potting for Crab, Lobster & Whelk. Trawling for brown and pink Shrimps. Seed Mussel has been relayed onto private lays & adult Mussel dredged off private lays for markets, & handraking for Cockles. Towards the end of this quarter there has been an increase on effort to potting for whelks.

Port Summary

Saltfleet - Chapel point

41 trips were achieved by one commercial vessel throughout this quarter potting for Crab & Lobster. Anglers have been catching a few dab within the haven, and also netting just on the edge of the tide line. Vessel based anglers have been fishing for Cod & Whiting within the mouth of the Humber.

Skegness – Gibraltar Point

Two commercial vessels have been longlining for Cod, Whiting & Bass and potting for Crab, Lobster and Whelks throughout this quarter totalling in 35 trips being achieved. Two angler vessels have been rod and lining for Whiting and Cod within the Humber.

Boston

10 vessels have continued to handrake Cockles throughout this quarter totalling in 137 landings being achieved, towards the end of the quarter only five vessels remained on this fishery, the fishermen of these vessels are trying to get a live market order for cockles as the value would be a lot higher. One vessel has managed 13 trips throughout this quarter twin beaming for Brown Shrimp. Two vessels have worked their private lays within the Wash for harvestable Mussels for markets.

Fosdyke

The Kings Lynn pilot vessel visited the marina throughout this quarter for a general overhaul; vessel based anglers have been otter trawling for Sole & also catching some large whiting. Two commercial vessels from Boston port have been moored up at the Marina during December for safe keeping over the Xmas period.

Sutton Bridge - Wisbech

One angler vessel has been rod & lining targeting Cod, also fishing off Wisbech No.1 area targeting Whiting.

Kings Lynn

A maximum of 24 vessels have been twin beaming for brown Shrimp throughout this quarter totalling in 404 landings being achieved thus far, two other vessels have been twin beaming for pink Shrimp achieving four trips between them. Towards the end of this quarter there has been an increase on the amount of vessels potting for Whelks, a maximum of 12 vessels have been potting for Whelks throughout this quarter totalling in 43 landings being achieved between them, unfortunately there is approx. two weeks' worth of Decembers Whelk & brown Shrimp landings not been collected yet. One vessel from this port has relayed seed Mussel onto their private lays within the Wash & also dredged Mussels from their private lays within the Wash for markets.

Species Summary

NB All landing and effort (e.g. potting) figures detailed within this report are estimates based upon observations made by Fishery Officers and reports from fishermen. They are intended to be an indicator only and should not be regarded as definitive figures.

Saltfleet - Chapel Point

Number of vessel inspections:

Species

Landings (kg)

6

Value of catch (£)

Crab	19,109	21,019.00
Lobster	1,200	10,750.00

Skegness – Gibraltar Point

Number of vessel inspections:		2
Species	Landings (kg)	Value of catch (£)
Crab	4,418	4,859.00
Lobster	752	6,634.00
Bass	367	2,825.00
Cod	6,270	17,931.00
Whiting	830	1,425.00
Whelks	956	717.00

Boston

Number of vessel inspections:		21
Species	Landings (kg)	Value of catch (£)
Handraked Cockles	204,380	101,262.00
Brown Shrimp	5,091	9,489.00
Market Mussels	70,000	49,000.00

Fosdyke

Number of vessel inspections:		2
Species	Landings (kg)	Value of catch (£)
0	0	0

Sutton Bridge

Number of vessel inspections:		1
Species	Landings (kg)	Value of catch (£)
0	0	0

Kings Lynn

Number of vessel inspections:		32
Species	Landings (kg)	Value of catch (£)
Brown Shrimp	261,650	486,069.00
Whelks	40,733.5	30,443.00
Pink Shrimp	1,318.5	1,753.00
Market Mussels	20,500	14,350.00
Lay Mussels	349,595	0

Potting

Crab and lobster

Number of pots inside 6nm fished by vessels from within area:	2200
Number of pots outside 6nm fished by vessels from within area:	2200

Bio-sampling of brown crab and lobster

Number of brown crab measured during the month:	140
Number of lobsters measured during the month:	22

Whelk

Number of pots inside 6nm fished by vessels from within area:	5,500
Number of pots outside 6nm fished by vessels from within area:	2,600

Non Commercial Activities

Recreational Sea Anglers (shore based):

Number of anglers inspected:	3	
Locations fished:	Species targeted:	Average catch (kg):
Saltfleet	Cod	12
	Bass	8
	Mullet	4
	Dab	0.5

Recreational Sea Anglers (vessel based):

Number of vessels inspected:	1	
Locations fished:	Species targeted:	Average catch (kg):
Saltfleet	Cod	8
Skegness	Cod	6
Fosdyke	Whiting	4
Mouth of Humber	Cod	10
	Whiting	8 - 12
Wisbech No.1	Whiting	6

Charter Angling Vessels:

Number of charter vessels inspected:					
Number of vessels in area:	0	Number of trips:	0	Number of anglers:	0
Species targeted:	0	Total Landings (kg):	0		
Locations fished throughout the month:	0				

Fishery Officer Duties**Training:**

On board TC Shrimp net training.

Other duties carried out:

Grimsby joint working with MMO.

Away on TC Mussel samples.

Attended TCG meetings.

Attended PPR meeting.

Attended staff meetings.

Attended Enforcement/Marine Protection meeting.

Attended Donna Nook Conservation meeting.

Attended community engagement meetings.

Bio Sampling Lincs coast.

Training East Lindsey District Council at Horseshoe Point collecting Cockles for water clarification.

Lincs coast joint working with MMO.

On board TC patrol shrimp vessels.

Bowling.

Attended Lobster & Bass presentation at Thoresby College.

1st sale value of different species within this area (£/kg)

Crab	1.10
Lobster	7.50 - 11.00
Whelks	75p
Brown Shrimp	1.77 - 1.91
Pink Shrimp	1.33
Bass	7.70
Cod	2.30 - 3.15
Whiting	1.30 - 2.00

Eastern Inshore Fisheries & Conservation Authority

From: Ady Woods I.F.C.O (Area: Norfolk)
To: J. Gregory Deputy C.E.O
Date:
Ref:
Report: Oct, Nov, Dec 2014

Area: Norfolk Coast: Heacham to Great Yarmouth

General

Throughout this quarter the weather has remained mainly fair, and positively mild, which has kept things on the move.

Most of the inshore fleet have shortened up their gear, leaving just a fleet of pots at sea which if (or When) the weather does turn can be got home quickly, minimising damage to treasured gear.

Those fishing from the beach have been hauling on average twice a week, allowing gear to stand to enhance the value of the catch against the expenses of fuel and bait.

The Fisheries

Crabs - There has been ample crabs around on both the inshore and offshore grounds. What have hampered things for most as sales become slower.

The guys fishing the inshore ground have been landing 60 – 300kg respectively twice a week, selling a large proportion from their own shops or stalls and other markets, and for some any surplus is sold to the factory.

However for the offshore vessels, many don't have individual sales and have relied upon the factory to take their catches, all summer when catches were slow on the offshore grounds only a few vessels continued to supply the factory so it's only right that these vessels get 1st take on landing to the factory to fill their required quota for their sales, this I feel hasn't gone down too well as now there's a good autumn fishery but limited markets.

A handful of vessels have been landing in the region of 1,000kg + a day, whilst others have lay against the sea wall and watched.

Lobsters – This fishery was good throughout October for both the inshore and the offshore fleet, however into November and December landings certainly slowed up for this species. It's thought that there have been simply too many crabs on the ground, these getting into the pots first after the bait and once there's too many crabs in a pot a lobster will steer clear. Time will tell if this has been the case, or if the lobsters have been hit too hard at other times of the year.

Whelks – This fishery is the one to watch at present, a similar thing is happening with whelks as it did with the white fish industry.

Vessels around the coast are finding it harder to sell the catches of crab and lobster at the volumes which they are caught, and other times of the year the grounds aren't producing enough to warrant the expense to fish for them. So everybody who is fitted out for potting is turning to the whelk industry to make ends meet, the gear is relatively cheap, so vessels can very quickly have a fleet or two of gear in the water.

Netting – There has been a mixture of netting activity throughout this quarter, as the seasons change.

Early on as soon as the water took a change in colour, the bass netters were out in force although some reasonable catches were had, the majority of time they were hampered by lots of weed.

Then the silver darlin's picked up in quality and for a time good plump fish full of oil and roe ideal for smoking were in plentiful amounts.

And eventually late into the quarter, some cod started to make a show, however this fishing soon halted as the correct size net wasn't being used, and the bi-catch wasn't outweighing the cod caught.

Angling – has been a very mixed bag, from the start of the quarter skate were still being hauled onto the beaches at Great Yarmouth, and other areas were enjoying some good sized

bass fishing and those venturing out at night caught some of the first autumn run of codling these beaches have seen for a couple of years.

As we progressed through the months, the skate went and the bass stopped, and by day the main fishing was dabs and flounders, and night, tings and tings and more tings and occasionally a better whiting was caught amongst the juveniles.

During the Christmas period, the tings relented a little and cod moved in along the coast, the main run of fish taken were 2–5lb, though there were some better fish to be had ranging from 7–10lb from Caister to the south, with reports of a 20lb cod being taken from the beach even further to the south. Also during this period, some early bass were again coming close to shore under the cover of darkness; these fish were upto 4lb.

Emerging Issues –

- Concerns are being had in Brancaster about the shortage of seed mussel which may be in the area.
- Gear conflicts continue, although this is within the same fishery, it's to do with the size of vessels and how they can physically operate.

Wind Farms -

- Concerns are arising over the proposed closed area at Weybourne (a 1mile sq. box) during June and July of the coming season, which Statoil require to carry out HDD drilling to allow them to put in the shore side cable routes for the Dudgeon Wind farm.
-

Port Summary

Brancaster

Most of the focus at this port has been towards the mussel fishery, some large private orders have been had, which see several mussels leave the county. However equally, with the shortage in Morston mussels this year, Brancaster mussels have been at the top of most menus around the district.

Wells-next-the-Sea

This port has been fairly active, firstly for those vessels which had orders for crab; the autumn run was upon us, which normally see a lot of female crabs pass through the area prior to spawning. The down side to this, is the fact that all these crabs are carrying the future fishery within them, for they are full of a deep red coral looking substance, which if left would eventually be 10s of 1000's of eggs which we feed back into the grounds.

The next major fishery which this port takes part in is the whelk fishery; more vessels from this port are taking part and working more and more gear.

During October 50 tonnes were landed and November 60 tonnes, December won't be quite as high due to the factory being closed down for the Christmas period.

During this quarter, this port has seen a change in the vessels operating there, *Novantae* has been replaced by *Terry William LT199* formerly from Morston. The second change is *Isabelle Kathleen LN74* has been replaced by *Ocean Provider LN1* both these vessels shall be targeting the whelk fishery.

Morston

With lots of talk being had around the silting up off the mussel beds at this port and the giving up of tradition by the local mussel men, it's nice to be able to report that this may not be the case.

A new look at how the mussels are being farmed is currently taking place by local fisherman W. Weston, he currently has a raft in place to which he intends to hang stocking like bags of seed mussel from in the hope that it will grow on and keep the name Morston mussel alive, which he will then be able to sell from his shop in the village of Blakeney. He's currently going through the required hoops to get water clarifications done and a process set up to do so in the future.

Following the sale of a vessel just one commercial registered boat remains operating from this port, targeting the crab and lobster fishery, for now at least. In time this may change as a new boat is in the process of being built and if it works out as is intended, all operations then may be worked from the beach, we will wait and see.

Cley-next-the-Sea

This beach has continued to be worked by vessels, the majority of which are licensed and have been working a few pots to supply their own needs.

However it's been reported that this beach is becoming increasingly more popular with

unlicensed vessels that are targeting the bass with the use of nets.

Weybourne

The two regular boats have continued to work a small fleet of pots, seeing them through this quarter being able to meet demand as required.

Sheringham

This port has remained relatively quiet, throughout the quarter. The crabs on the ground here haven't been so thick in numbers.

In the coming season this port may see another two vessels operating from here on more of a full time basis.

East & West Runton

Vessels at both these ports have continued to fish throughout, mainly targeting crab and lobster, although some bass netting was carried out during October.

East Runton has seen a new boat join its fleet on the beach, the *Leason Lady CS649* a catamaran, formerly from Morston.

Cromer & Overstrand

For those vessels which have kept pots in the water for the whole quarter have probably had one of their best autumns fishing for some years, the quantity and quality of crabs has been unbelievable.

Most vessels have shortened up their gear, and are working a range of pots from

30–150, these are being hauled around a couple of days a week depending upon demand, landings have ranged from 60kg upto 750kg.

Mundesley to Caister

Most of this stretch has now finished for the season, though a couple of vessels do and will continue to operate from Sea Palling, targeting a mixture of species to include crab, lobster, whelk, herring, bass and cod.

Along the coast at Caister Herring eventually made a return to the shores during October, catches were slow to begin with, but catches were soon on the increase and the regular catches of 400 – 500kg were there once more.

Yarmouth/Gorleston

Of the six commercially licensed vessels at this port just one continues to fish for whelk, the others are mostly laid up, which may do a little lining if and when any numbers of cod make a show.

Species Summary

NB All landing and effort (e.g. potting) figures detailed within this report are estimates based upon observations made by Fishery Officers and reports from fishermen. They are intended to be an indicator only and should not be regarded as definitive figures.

Brancaster

Number of vessel inspections: Species	Landings (kg)	1	Value of catch (£)
Bass			
Crab	620		1,980
Lobster	100		1250
Mussel	12,500		unknown
Whelk			

Wells-next-the-Sea

Number of vessel inspections: Species	Landings (kg)	23	Value of catch (£)
Bass	12		168
Crab <6nm	24,249		36,769
Crab >6nm	11,613		13,936
Lobster <6nm	324		3,8884
Lobster >6nm	1,014		11,809
Shrimp	50		150
Whelk	146,304		100,852

<u>Morston</u>		
Number of vessel inspections:		4
Species	Landings (kg)	Value of catch (£)
Crab	3,900	12,090
Lobster	370	4,515

<u>Sheringham</u>		
Number of vessel inspections:		4
Species	Landings (kg)	Value of catch (£)
Crab	413	496
Lobster	21	336
Herring	10	10

<u>Cromer</u>		
Number of vessel inspections:		18
Species	Landings (kg)	Value of catch (£)
Bass	504	7,200
Cod	100	310
Crab	12,828	39,741
Dab	3	5
Herring	120	84
Lobster	1,655	11,899
Whelk	11,899	8,552,140
Herring	100	100
Dogs	237	200

<u>Cley, Weybourne, E Runton, W Runton, Overstrand, Mundesley & Bacton</u>		
Number of vessel inspections:		15
Species	Landings (kg)	Value of catch (£)
Bass	177	2,478
Crab	4,490	13,918
Lobster	1,512	17,698

<u>Sea Palling</u>		
Number of vessel inspections:		3
Species	Landings (kg)	Value of catch (£)
Crab	2,935	8,378
Herring	200	150
Lobster	234	2,727
Whelk	6,031	4,220

<u>Caister & Gorleston</u>		
Number of vessel inspections:		7
Species	Landings (kg)	Value of catch (£)
Bass		
Cod		
Crab		
Herring	17,500	7,905,200
Mackerel	600	2,100
Pilchards		
Spratt		
Whelk	18,546	12,941

<u>Potting</u>		
Crab and lobster		
Number of pots declared to be fished inside 6nm:		12,000 -

	9,000
Number of pots declared to be fished outside 6nm:	4000
Bio-sampling of brown crab and lobster	
Number of brown crab measured during the month:	904
Number of lobsters measured during the month:	361
Whelk	
Number of pots declared to be fished inside 6nm:	5,500
Number of pots declared to be fished outside 6nm:	3,500

Non Commercial Activities

Recreational Sea Anglers (shore based):

Number of anglers inspected:	19		
Locations fished:	Species targeted:		Average catch (kg):
Cley	Various		1.0
Weybourne	Various		0.5
Salthouse	Various		0.5
Cromer Pier	Various		1.0
Trimingham	Various		1.0
Gorleston Pier Head	Various		0.5

Recreational Sea Anglers (vessel based):

Number of vessels inspected:	0		
Locations fished:	Species targeted:		Average catch (kg):

Charter Angling Vessels:

Number of charter vessels inspected:	0		
Number of vessels in area:	Number of trips:		Number of anglers:
Species targeted:			Total Landings (kg):

Locations fished throughout the month:

Fishery Officer Duties

Training:

MCSS update to others

Other duties carried out:

October

7 days involved coastal patrols and landings

6 days included report writing (monthly/quarterly) and other admin duties eg timesheets, email, MCSS, Bio sampling updates, monofilament netting updates

3.5 days involved meetings

1 day was spent in the office at Kings Lynn

½ day was spent sorting and delivering a show pack of crustaceans

1 day was spent looking into Morston mussels

3 days annual leave were taken

Nov

3rd Suffolk patrol

4th Meet W.Weston to view mussel raft at Morston

5th Drift net survey Aldeburgh Napes

6th Landings Wells – WNNCAGEMS meeting attended

7th Meet PH and N. King at Wells

12th Patrol coast to YH

13th Patrol coast to Cley

14th Bio sampling
20th Bio Sampling
21st staff meeting
25th Trawl survey Aldeburgh Napes
26th Sonar camera at Sutton bridge, IIP meeting
27th Community meeting Cromer
28th Patrol coast and landings
MCSS update to others

Dec

2nd to Suffolk to assist with bait diggers
4th Patrol Cromer to Gorleston
5th MCSS update – patrol Cromer to Wells
9th Landings Cromer
10th Patrol Yarmouth area
12th Patrol Cromer to Morston
15th Landings Caister
16th at Office
17th At Office
18th At Office
22nd Patrol Cromer to Wells
24th – 31st Annual Leave

1st sale value of different species within this area (£/kg)

Bass	14.00 – 16.50
Cod	3.10
Crab	1.20 - 3.10
Dab	1.00
Dogs	0.75
Herring	0.30 – 1.40
Lobster	11.50 – 16.00
Whelk	0.77

Eastern Inshore Fisheries & Conservation Authority

From: Alan Garnham Fishery Officer (Area 3)
To: Phil Haslam - CEO
Date: 15th January 2015
Ref:
Quarterly Report: October, November, December 2014

Area 3: Pakefield – Felixstowe Ferry

General

The quarter began with easterly winds keeping fishermen ashore. Warm weather continued with no sign of any frosts and plenty of summer species being caught. Commercial fishermen reporting plenty of sole with many larger sole coming through now. Cod arrived close in along the beaches mixed in with bass and thornback ray. Crabs and lobsters were still there in numbers and even the cock crabs were full of meat. Sea water temperatures remained high during October. In fact during the end of the month a pod of humpback whales were spotted and recorded by RSPB staff at Minsmere and later further sightings at Mundesley and Walcott on the north Norfolk coast.

Anglers reported many species being caught including flats, codling, bass and thornback rays on the beaches.

After a stake holder meeting it was decided the Stour and Orwell bait diggers voluntary code would continue from 1st November. Leaflets and information were sent out to tackle shops and anglers were informed /reminded when I attend monthly RSA meetings throughout Suffolk and north Essex.

November passed as a very warm month with record high temperatures and no frosts. Wind and easterly swells have been the main headache along with a roker closure for the rest of the year.

Usually many fishermen have cleaned and packed away their nets and moved over to long lining but with a sea reported full of roker fishermen couldn't line due to catching nothing but roker and having to discard all caught fish. Many resorted to catching a few sole or target late bass in the warmer water. With the warmer water lobster and crab were still moving around and being caught in remaining pots but selling caught shell fish has been difficult because of reported huge number of imported frozen Canadian lobsters hitting the cheaper brand supermarkets @ £5 each for Christmas.

John Allen came down to Suffolk during November and remained at Levington for the rest of the year. She was limited to river patrols only due to sea conditions.

An underwater camera survey was attempted using John Allen but was unsuited in the strong tides although a few good pictures were taken.

December saw a very good finish to the year including the weather. I understand it was confirmed to be the wettest year on record for the last thirty years and the warmest year on recorded history ever!

Some summer species were still around notably crabs, lobsters and bass. Perhaps this is down to the warm year and water temperature being abnormally high.

Bass were still being caught in deadly mid water trammels most commercial fishermen have invested in these nets and all give the thumbs up.

On the beaches the anglers reported good catches of cod and whiting with the occasional bass. A 20lb cod was taken on rod and line on the dirty wall at Aldeburgh.

Bait digging in critical areas has still been occurring in both Rivers Orwell and Stour. The first phase of the seawall replacement replenishment has been completed at Lowestoft promenade and 9,000 tonnes of Norwegian rock is now in place and more work will take place after the winter weather.

Erosion has continued at Aldeburgh dirty wall and the Environment agency have closed access to Orford island vehicle access whilst replenishment takes place. Fishing access to the Island can only be made via a boat at Orford.

Port Summary

Pakefield

Plenty of herring reported close in but not a lot of fishing effort due to the herring not being a fashionable fish for the plate keeping prices extremely low. Lowestoft sea anglers RSA club report good catches on the beach with a variety of fish including thornback ray. In fact

Kessingland beach during October fished all month with reports of good numbers of ray being caught falling to joey mackerel. These rays were very close in, 15 yards from the beach. It appears they are feeding on the prawns which are in abundance all down the Suffolk coast this year.

Southwold

Very mixed bag of fishing here with many commercial fishermen abiding by the poor quota allowances and this has suffered in the landings. With a very small allowance on Skate then closing it totally during November and December caused fishermen to target sole and bass.

On the beach it was slow and matches have been rearranged to other more productive beaches.

Whelking is still occurring with good landing figures.

Charter boats have reported fewer trips this quarter due to the lack of big fish.

Dunwich & Sizewell

It's been a mixed bag of fish with summer species still being caught throughout the quarter.

On the beaches the match fishing has been productive on specie numbers but poor on weight.

During December the sprat have arrived as can be seen by the amount of seagulls lying in wait beside the Sizewell B cooling 'out pipe.'

Thorpeness & Aldeburgh

Commercial landing activity during the quarter was very good with plenty of meat on the crab and lobster. I had reports that the pots were full of large prawns and whelks. Up on the dirty wall and Orfordness Island replenishment work has been undertaken again by the environment agency as we have suffered yet another tidal surge on the beach.

On Thorpeness beach I received many facebook pictures of Thornback ray and cod being caught on the beach even during daylight hours.

Aldeburgh beach several cod have been reported in evening matches around the 2-3lb mark. It appears the cod are very close in. The best reported cod was a 20lb caught on the dirty wall. Quiet Christmas here with many commercial boats usually targeting the roker at this time of the year. Those that went targeted bass and cod using mid water trammels as there are no boats here capable of trawling.

Orford

Generally commercial fishing has been pretty good with a variety of fish close in including in the river. The cod have not appeared out on the banks as yet. The area seems swamped with roker but with no quota during November and December it was hard to avoid catching roker.

Commercial fishermen have left a few pots out on the wrecks for the winter and when checking pots they have been surprised at the amount of lobster and crab still around probably due to the present higher than average sea temperatures.

Quiet Christmas here with many commercial boats usually targeting the roker at this time of the year. Those that fished targeted bass and cod using mid water trammels as there are no boats here capable of trawling. On the island I have had good reports of anglers taking good numbers of codling and yes the dogfish are still here.

Felixstowe

No one has moved over to winter lining as yet due to the fact there are too many roker and the cod have not appeared here as yet. RSA boats have reported being plagued with dogfish and if you can get through these many thornback ray have been taken with the odd cod close in to the beach. The sea off Felixstowe is full of herring but such an unfashionable fish.

On the beaches angling was very good with fish being so close to the beach and within range of the average angler. Good reports of codling, whiting, bass and even thornback rays. Tackle shops are reporting good sales in live worm bait and frozen squid.

Species Summary

All landing figures detailed within this monthly report are derived from estimates of catches based on observations made by Fishery Officers and reports made by fishermen to Fishery Officers.

		<u>Pakefield</u>	
Number of vessel inspections:	Species	Landings (kg)	Value of catch (£)
	Whelks (Lowestoft)	12,271	9,507.65
	Herring	1,120	620.00
		<u>Southwold</u>	
Number of vessel inspections:			6

Species	Landings (kg)	Value of catch (£)
Cod	1,260	2,898.00
Roker	425	680.00
Sole	2,048	17,887.00
Flounder	333	333.00
Dabs	150	150.00
Dogfish	331	529.60
Bass	386	3,684.00
Herring	550	550.00
Brill	19	161.50
Turbot	10	90.00
Smoothhound	60	132.00
Whiting	231	231.00
Whelks	36,610	28,913.79
Lobster	278	2,780.00
Crab	210	660.00

Dunwich & Sizewell

Number of vessel inspections:		3
Species	Landings (kg)	Value of catch (£)
Cod	437	1,030.50
Roker	10	16.00
Sole	290	2,507.50
Flounder	160	160.00
Herring	210	210.00
Bass	329	2,991.00
Dab	30	30.00
Lobster	90	900.00
Crab	80	240.00

Thorpeness & Aldeburgh

Number of vessel inspections:		4
Species	Landings (kg)	Value of catch (£)
Cod	1,059	2,235.50
Roker	390	624.00
Sole	2,293	19,229.00
Herring	1,907	1,907.00
Dogfish	167	265.20
Dabs	85	85.00
Bass	520	4,970.50
Flounder	335	335.00
Whiting	90	90.00
Turbot	20	180.00
Brill	39	331.50
Smoothhound	22	48.40
Lobster	335	3,350.00
Crab	210	682.50

Orford

Number of vessel inspections:		3
Species	Landings (kg)	Value of catch (£)
Cod	1,945	3,473.00
Roker	280	448.00
Sole	5,447	47,348.00
Herring	1,790	1,790.00
Dogfish	172	275.20
Flounder	374	374.00
Dabs	104	104.00
Whiting	265	265.00
Brill	30	255.00
Bass	290	2,570.00

Smoothhound	34	54.40
Lobsters	394	3,940.00
Crab	346	1,018.00

Felixstowe

Number of vessel inspections:		7
Species	Landings (kg)	Value of catch (£)
Cod	693	1,593.00
Roker	210	336.00
Sole	5,000	43,004.00
Herring	2,085	2,085.00
Dogfish	107	171.20
Flounder	240	240.00
Dabs	32	32.00
Bass	394	3,747.00
Mullet	81	162.00
Smoothhound	15	33.00
Whiting	130	130.00
Lobster	333	3,330.00
Crab	193	599.00

Potting

Crab and lobster

Number of pots inside 6nm fished by vessels from within area: (AVERAGE)	200
Number of pots outside 6nm fished by vessels from within area: (AVERAGE)	45

Bio-sampling of brown crab and lobster

Number of brown crab measured during the quarter:	0
Number of lobsters measured during the quarter:	0

Whelk

Number of pots inside 6nm fished by vessels from within area:	320
Number of pots outside 6nm fished by vessels from within area:	850

Non Commercial Activities

Recreational Sea Anglers (shore based):

Number of anglers inspected:	56
Locations fished:	Species targeted:
Aldeburgh	Cod
Felixstowe	Cod
Kessingland	Ray
	Average catch (kg):
	3
	4.2
	8

Recreational Sea Anglers (vessel based):

Number of vessels inspected:	4
Locations fished:	Species targeted:
Orford	Cod
Felixstowe	Cod
	Average catch (kg):
	5
	12

Charter Angling Vessels:

Number of charter vessels inspected:	1				
Number of vessels in area:	19	Number of trips:	122	Number of anglers:	732
Species targeted:		Total Landings (kg):			
Cod		3,100			
Whiting		200			
Thornback ray		1,138.3			
Bass		90			

Locations fished throughout the month:

Fishery Officer Duties

Training:

8th Oct – 'E' learning data training

Other duties carried out:

14th Oct – Lifejackets to safety marine centre

15th Oct – MMO/EA dredging report

16th Oct – PDP

17th Oct – Monthly enforcement meeting kings Lynn

20th Oct – Dredging meeting Ipswich

21st Oct – Norwich ICT

21st Oct – Safety marine centre pick up jackets

23rd Oct – Simperts retag dredge

28th Oct – MMO meeting Lowestoft

28th Oct – PM Bait digging meeting kings Lynn

4th Nov – Colchester Sea Anglers

6th Nov – Drift net survey GGOWF

11th – 16th Nov – Leave

17th Nov- Flu jab Kings Lynn

17th Nov – GGOWL meeting Lowestoft

20th Nov – Office meeting Kings Lynn

21st Nov – Pick up life jackets from Lowestoft for boat crew

24th Nov – Show Frances around River Deben sites

25th Nov – John Allen Patrol

26th Nov - Review underwater camera at Sutton Bridge

26th Nov – RYA exam at Kings Lynn

27th Nov – John Allen patrol

28th Nov – John Allen patrol

14th Dec – Sizewell B tour re fish extraction

15th Dec – Office at Kings Lynn

16th Dec – Office at Kings Lynn

17th Dec – Office at Kings Lynn

**1st sale value of different species within this area (£/kg) AVERAGE
THROUGH QUARTER**

Cod	2.33
Roker	1.60
Sole	8.83
Bass	9.33
Smoothhound	2.20
Turbot	9.00
Brill	8.50
Dogfish	1.60
Mullet	2.00
Flounder	1.00
Whiting	1.00
Herring	1.00
Dabs	1.00
Whelk	1.31
Lobster	10.16
Crab	3.16

EASTERN INSHORE FISHERIES & CONSERVATION AUTHORITY

To J Gregory
From S P Howard

Quarterly Report RV Three Counties Oct, Nov, Dec 2014

October

Mussel surveys took up most of October taking 9 days covering the inter-tidal mussel beds. The survey found low numbers of seed mussel in the samples on nearly all beds but there was good news with a new seed mussel bed found on the Boston side of the Wash.

EHO/DSP samples were collected from around the Wash from both side of the Wash. Sweep samples were collected from around the Wash. Routine maintenance was conducted on the vessel with a total replacement of the service and main engine batteries.

Cummins UK came back to follow on from a telephone survey on the engineers work on the engines and parts order for the task. The second part of the visit was a chase up on the keel cooling system, and to check their drawings against the vessel hulls. A time was set in February 2015 when the refit will take places and inspect the keel cooling pipe work for size and style.

November

EHO/DSP samples collected from both sides of the Wash to check on the healthy cockle and mussel stocks in the Wash. Sweep samples were collected from Lynn and Boston sides of the Wash.

Time was taken to tidy last part of the barge and then empty out the fuel tank on the barge ready for hand over to new mooring berths on the Nene River for commercial use. Routine maintenance was conducted throughout the month.

Joint work with Natural England on the collection of core samples from the Inner West Mark Knock and Mare Tail sands as part of an on-going study into effects of hand worked cockle fishery. The samples were taken to be analysed for their sediment type and make up to check for changes to the sand.

A demonstration of an underwater sonar camera was performed on the mooring at Sutton Bridge to find out if we could use the system to map Sabellaria on the sea bed in the mouth of the Wash.

December

EHO/DSP samples were collected from the Kings Lynn and Boston side of the Wash.

Sweep samples were collected from around the Wash starting in the Wisbech Channel, Gat Channel, Toft(Lower Roads), Freeman Channel, Boston Roads Buoy, Data Buoy, Stylemans and Old Lynn Channel.

Shrimp enforcement patrol took place around the Wash checking the fishing equipment used. The patrol covered the mouth of the Wash and the time was taken to make radar observation of the EMS boxes to see if any fishing was taking place near or in the boxes.

A new table and boxes were made for the EHO/DSP site in the Lynn River (Ouse). The table and samples boxes with mussel was then placed on the edge of the Lynn River on the King's Lynn side of the river to help cut down on boat time collecting the samples.

EASTERN INSHORE FISHERIES AND CONSERVATION AUTHORITY

TO: J Gregory
FROM: S T Lee

QUARTERLY REPORT FPV John Allen October-December 2014

During the quarter the hand work cockle fishery continued with landed catch rates dropping and vessels partaking in the Thames cockle fishery activity had dropped to a few vessels operating from Kings Lynn and Boston. With the combination of less fishing vessels, weather and other commitments John Allen had a visible presence at sea for three days during October policing the handwork cockle fishery and patrolling other areas of the Wash. On two of the patrol days vessels were observed 'laying-on' for the cockle fishery. Once the tide had dropped John Allen then patrolled other areas of the Wash targeting the brown shrimp fishery. Two boardings were conducted and no infringements detected. Reports from the fishers indicated that the brown shrimp fishery was still relatively quiet for the time of year. The remaining days of patrol no fishing activity was observed; the opportunity was taken to conduct the monthly drills (abandon ship, fire and man overboard).

On the occasions that John Allen wasn't at sea officers were engaged in the monitoring of cockle landings in the ports at Kings Lynn and Boston, officers also assisting the research department with the annual mussel surveys on Three Counties

November started with a mixture of strong winds and fog. On the 17th John Allen patrolled from Sutton Bridge to Kings Lynn visitor mooring, this was to facilitate an educational river trip for Sam Evans and Richard Inman from the MMO. The main purpose and outcome was to achieve a better understanding of the Authorities vessels and issues of the local area. Cllr Angie Fitch-Tillett came for the trip to find out how we interact with the fishing industry around the coast of North Norfolk.

The following night John Allen patrolled the North Norfolk coast round to Lowestoft, this was to observe fishing activity and for two officers to complete a night passage over 60 miles for their RYA Yacht Master practical. The patrol continued the following day down to the southern end of the district in moderate conditions and as a result restricted boarding to one vessel. A number of other vessels were observed and recorded in the sightings vessel log. The vessel boarded had no catch on board as they had recently sailed and not commenced that days fishing activities.

A further four days were spent patrolling the southern end of the district, but with moderate north-easterly winds patrols were restricted to the rivers Stour and Orwell. No fishing activity was observed and little disturbance was observed in sensitive areas. All observations were recorded on the monitoring forms and submitted for recording. The last two days of the patrol was dedicated to the deployment of the ROV where local fishermen had concerns that silting of the river bed was taking place as a result of high level dredging and depositing within the local area.

December was much like November, relatively quiet for sea going enforcement. This was due to the continued slowing of fisheries and the unpredictable weather. Officers that were not on training or taking annual leave assisted in monitoring the cockle landings in Kings Lynn and Boston.

All personal lifejackets and Pisces LSA equipment had their annual service. Pisces had her annual MCA inspection and passed without any major defects.

The decision was taken that with the Christmas period fast approaching and no major fisheries taking place John Allen should be left at the southern end of the district.

Simon Lee

EASTERN INSHORE FISHERIES AND CONSERVATION AUTHORITY

To: J Gregory

From: J M Taylor

Quarterly Engineering Report for October, November, December 2014

RV Three Counties

October	Engine hours at the start of the month 30/09/2014:	Engine hours at the end of the month 28/10/2014:
Port Main:	7054.5	7108.3
Stbd Main:	6932.5	6986.9
Port Gen:	8194	8256
Stbd Gen:	8058	8117
November	Engine hours at the start of the month 28/10/2014:	Engine hours at the end of the month 25/11/14:
Port Main:	7108.3	7142.1
Stbd Main:	6986.9	7020.2
Port Gen:	8256	8286
Stbd Gen:	8117	8139
December	Engine hours at the start of the month 25/11/14:	Engine hours at the end of the month 15/12/14:
Port Main:	7142.1	7174.1
Stbd Main:	7020.2	7056.3
Port Gen:	8286	8326
Stbd Gen:	8139	8151

October

- 1st-3rd, General maintenance that included; removing then cleaning the mounting locations and replacing both main engine batteries and both generator batteries. Replacing the lagging on the starboard engine exhaust using a combination of fiberglass matting and lagging. Tensioning the starboard alternator belt and replacing the guard. Replacing an escape hatch clip on the starboard engine room. Fitting a new winch to the moorings. *(JT)*
- 15th, Engineer from B&B Engineering came aboard to measure up for a bracket on the roof of the wheelhouse. *(SPH assisted)*
- 15th, Cummins came down to assess the keel cooling and if it was working correctly and sufficiently. Sea trials up the river were conducted and it was determined that the difference between the coolant entering the keel cooling and the coolant exiting the keel cooling was roughly (on both engines) around 10 degrees. We were informed that this was not sufficient to cool the engines properly. *(SPH & JT assisted)*
- 15th-16th, General maintenance, including removal of old man overboard light & smoke signal and fitting of new, removal of rear steering deck plate to check for leakage from the hydraulic steering ram and fit drip trays. One of the connects on the ram was weeping, connection was tightened, also checked the hydraulic steering pump, reservoir tank, and pipework in the port engine room and leading through the bulkhead to the port steering compartment for any leakage. Traced pipework around the engine room, only slight weep-age was found on a couple of connections nothing significant, these were tightened. *(JT)*
- 22nd, Skipper *(LT)* reported the steering was feeling unresponsive every other half turn. Throughout the day oil was added, the system continuously bled and pipework traced around the vessel and checked for leakage. No leaks were found, the head unit behind the steering wheel was suspected as the internal cam that pressurises the oil can wear over time. *(JT & LT)*
- 23rd, Researching, sourcing and ordered a replacement head unit for the steering. *(LT)*

- 24th, New steering head unit was fitted. (*LT & JT*)

November

- 3rd-7th, General maintenance port and starboard aft winch wires were pulled off and checked for faults. Also a 6 month service of the gearbox's main engines and generators, (*LT & JT*)
- 18th, Starboard head maintenance, replacing the hand pump on the side of the toilet. (*JT*)
- 24th-25th, Fault finding and unblocking the pipework on the starboard head. (*JT & SPH*)
- 25th, Earth tested both port and starboard starter motors no leak found. (*JT*)

December

- 2nd, Cummins UK aboard talking to SPH about the keel cooling.
- 10th-11th, Maintenance list started. (*GB*)
- 16th, Maintenance list finished. (*GB & SPH*)
- 16th, Checking the inspection hatches and secondary under-floor filler caps, for the forward and aft fuel tanks, under that galley floor and the stairs leading up to the wheel house. After a diesel smell was noticed the day before on the 15th. No major leaks found just a little weeping from underfloor filler caps on the aft tank. Filler caps and Residue cleaned out from under floors and caps tightened. (*JT & LT*)

John Allen

October	Engine hours at the start of the month 25/09/2014:	Engine hours at the end of the month 16/10/2014:
Port:	468	472.5
Stbd:	465	469.7
November	Engine hours at the start of the month 16/10/2014:	Engine hours at the end of the month 28/11/2014:
Port:	472.5	502.1
Stbd:	469.7	499.3
December	Engine hours at the start of the month 28/11/2014:	Engine Hours at the end of the month 28/11/2014:
Port:	502.1	502.1
Stbd:	499.3	499.3

Pisces

October

- 15th, MCA assessment. (*SL, LT present*)
- 16th, TCM came and inspected the lifting strops, rings and eyes in the deck. (*SPH present*)

November

- 6th, Pisces compass was adjusted by Seath Instruments. (*LT assisted*)

December

- 10th, Replaced the propeller with a spare after it was damaged on the 8th when out getting EHO and DSP samples. Damage consisted of the fractured blade and a significant chunk missing. (*JT*) Also fixed corrosion on hand mic on Prices radio, button was sticking. (*LT*)
- 16th, Starboard fire extinguisher and bracket replaced after the previous bracket corroded through on the 9th the week before. (*GB*)

Vision

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



Information Item 22

17th EIFCA Meeting

28th January 2015

Reports by:

- a) Ron Jessop, Senior Research Officer
- b) Judith Stoutt, Senior Marine Environment Officer

Marine Environment Quarterly Reports

- a) **Senior Research Officer's Quarterly Report**
- b) **Senior Marine Environment Officer's Quarterly Report**

Purpose of report

The Authority runs a year-round programme of research projects and environmental work. This paper enables Members to be kept informed of key activities undertaken by the Authority's Research and Environment team during the previous quarter, October to December 2014, any issues that have arisen either through internal or external drivers, and an indication of up-coming developments that could require future actions.

Recommendations

Members are asked to note the report.

Background

- a) **Senior Research Officer's Quarterly Report**

The annual Wash inter-tidal mussel surveys that commenced in September were completed during this quarter. A paper has been prepared for this meeting describing the survey results, but in brief, the stocks have continued to decline. For unknown reasons, mortality among three-year old mussels has been high in recent years. This has had serious impacts on the number of juvenile mussels that are left to recruit to the adult stock, which in turn is having serious implications on the size of the spawning stock and the overall mussel biomass. Mussels are usually a relatively long-lived species, which offers a degree of stability to the beds, but the high mortalities being experienced among the year-3 cohorts is endangering this stability. As an outcome of this, most of the beds are declining at alarming rates and are showing little sign of recovery. Also, because the average life-expectancy has been reduced, there is a greater reliance on annual recruitments to replenish losses. Unfortunately, the surveys found that recruitment during 2014 had been negligible. Although two new beds were identified and included in this year's survey programme, the total mussel biomass was found to have declined from last year. It is the officers' recommendation, therefore, that the fishery remains closed this year.

Because of the declining state of the mussel stocks, the Authority approved a project in 2014 to test whether laying a culch of cockle shells could be used to attract mussel seed into the beds. Again, a report has been prepared for this meeting detailing the results of this study.

Briefly, though, although the culch failed to attract significant numbers of mussel seed, it did successfully attract low densities of larger mussels that had probably become detached from the main bed. By the end of the study period, approximately 500kg had attached to the shelly areas. Because there was an exceptionally low mussel spatfall during 2014, it is difficult to determine whether under better conditions the experiment would have been more successful at collecting seed. It is the officers' recommendation, therefore, that the project continues another year and attempts to regenerate a nearby patch of mussel bed.

The Authority has a commitment to biennially monitor the recently closed areas around the "red-risk" sites in the Wash that protect the cobble/boulder and *Sabellaria spinulosa* "core" reef features previously identified within them. Survey work was conducted during the previous quarter that involved surveying the areas acoustically with the Edgetech side scan sonar and ground truthing these data with samples collected from grabs and with underwater cameras. This quarter, time has been spent analysing this dataset. This has involved a lengthy process of cleaning and geo-referencing the acoustic data so it can be overlaid with background charts and ground-truth data in MapInfo. This year's data have then been supplemented with historic ground truth data from past surveys to help interpret features that can be seen on the side scan mosaics. This has helped to identify and map prominent features like large sand waves and bank edges, but finer detailed analysis is required in the coming month to identify and map the less prominent features like *Sabellaria*.

The turbidity in the Wash, and much of our district, makes ground-truthing with traditional cameras difficult. Often their usage is limited to narrow windows around the slack-water periods of neap tides, outside of which, visibility is frequently reduced to a few centimetres. In November a sonar camera was tested at the moorings. As their name suggests, these cameras use sound waves rather than light to produce their images, and as a consequence are less affected by turbidity. Although the camera was deployed in a strong ebbing tide in very poor visibility, it produced clear images of the moorings, the underside of the vessel and the edges of the riverbank. In January it is hoped to trial the camera at sea on a *Sabellaria* reef to determine whether it provides sufficient resolution to "see" the reef features. At £70,000, the cost of this equipment is prohibitive to individual IFCA's, but if trials prove successful, could potentially be acquired and shared by groups of IFCA's as other items of expensive equipment have been done.

Data assimilated during this year's fin fish project have been used by a member of the team this quarter to provide evidence to inform a suite of suggested management measures aimed to protect the bass stocks in our district. Although close to the northern extremity of its range, bass are becoming increasingly important both as a commercial and recreational species in our waters. It is recognised nationally that stocks of this species are being over-exploited, but although national measures are being suggested, these could take a long time to be implemented, or in the case of prohibited areas, perhaps not apply to our district. A suite of management measures has been developed, therefore, that could potentially provide interim local protection for this species.

The crustacean project has continued through the quarter. This has involved one member of the team analysing bio-sample data collected from vessels landing crabs and lobsters into the ports and from landings data gathered from the MMO returns forms. The driver for this project is to provide advice on whether further management measures are required for the crab and lobster fisheries, and if so, which would be the most appropriate measures. There has been close liaison with Cefas throughout this project, to ensure there is synergy between our survey methods.

In 2009 the Authority positioned a sonde buoy in the Wash to monitor the chlorophyll content of the water, as well as its turbidity, salinity and temperature. During this quarter, however, the buoy broke free of its moorings during a storm. Although it was subsequently recovered at Hunstanton, some damage had been caused to both the buoy and the sonde. The sonde has been sent to its manufacturers, who provided a detailed report of damage and repair costs (£2,317 inc. VAT). It is currently being investigated whether this can be recovered from its insurance. Inspection of the buoy found there has been some structural damage, mainly to the anchoring mounts. It is currently being investigated whether it would be more cost-effective to repair or replace the buoy.

In the Wash water classification sampling is conducted by the Authority on behalf of the local district councils. During the previous quarter, a review of Authority activities highlighted a large disparity between the cost incurred to us in collecting these samples and the recompense paid to us by the respective councils. Meetings have subsequently been held between Authority staff and members from the district councils responsible for the sampling to discuss this issue. Service Level Agreements are being sought with the respective councils so that the service and cost of service can be formally agreed. Because to fully cost-recover for this service would significantly increase the price of each sample charged to the councils, we have been exploring ways to make sample collection more cost-effective. Currently, because of tides and the fact that the samples need to be collected within a time-window, it means that the samples for Boston and King's Lynn cannot be collected in a single boat-day. Only a single sample is collected from the King's Lynn side of the Wash now, though, so a site is being tested at the low-water mark on the east bank of the River Great Ouse that can be visited on foot rather than requiring a boat. Parallel sampling will be conducted between this location and the existing sample site over the next six months to ensure it provides a suitable sample location. If successful, changing to this site would mean the process could be cut to a single boat-day, significantly reducing the cost of sampling.

In addition to conducting our usual programme of research activities, members of the research team have continued to support the process of assessing fisheries in European Marine Sites. Our contribution towards this project has involved conducting a series of detailed literary reviews on the numerous gear/feature interactions that occur within the sites within our District. The reports compiled from these reviews will then feed into the assessment process, together with, the fishery and feature evidence components to determine what management measures might ultimately be required to manage various fisheries in each of the sites.

The Authority is currently undergoing a major change to its digital filing system. During this quarter the team have spent time helping to develop an appropriate filing system for the research and GIS files. Most of the team have managed to rename and move their files into the new structure now, but for longer-serving members of the team who have more files to move, this is still being undertaken. The library of paper reports stored in the office is also being reviewed.

In December the research team hosted a Science Day event at Thorseby College for other members of staff, plus interested Authority members and stakeholders. In addition to a presentation from the environment team about the drivers for our current EMS work, the event featured presentations from three guest speakers. These included:

- Robin Masefield (Cefas) talking about the current Cefas PIECRUST study, which looks to detect future recruitment into crab and lobster fisheries;

- Daniel Skerritt (Newcastle University) talking about his studies on crab and lobster. This included studies into factors that influence the numbers of animals that will enter pots, and lobster behaviour on a reef. This latter study was conducted using acoustic telemetry to monitor the movements of a number of lobsters on a reef over time.
- Steve Colclough (IFM, and formally the EA) talking about bass populations, behaviours and possible management.

Members of the research team have represented the Authority at several meetings during the quarter. These include:

- A DEFRA shellfish symposium in London
- An IFM conference in Liverpool
- A Stour and Orwell research meeting in Harwich
- An East Anglian Water Quality Forum meeting in Colchester
- An IFCA Technical Advisory Group meeting in London
- A Cefas/IFCA meeting in London to discuss electronic MSAR forms
- Meetings with the Local Borough Councils to discuss water quality sampling
- A UKTAG Marine Task meeting (teleconference)
- A meeting with representatives from DONG energy concerning the potential for us to support their required cockle surveys along their cable route on Inner Westmark Knock.
- A visit to Sizewell power station, where large numbers of fish are caught in the water intake screens.

In addition to these meetings, members of the environment and research teams also represented the Authority at an educational outreach event at Gillingham School.

b) Senior Marine Environment Officer's Quarterly Report

Introduction

The Environment Team welcomed Frances Burrows into the role of Marine Environment Officer (Data Lead) in October 2014. Frances's training as a marine ecologist, her enthusiasm for the work of the Authority and experience as a licensing officer with Marine Management Organisation are already proving their worth as Frances joins the team at a challenging time. Following a productive probation period it has also been recommended that the new Marine Environment Officer (Consultations Lead) Dan Steadman is confirmed in post. The team is now operating at the new full capacity (3.7 full-time equivalent officers) – an increase from 2.7 officers following an assessment of the Authority's priorities and environmental workload in April 2014. The increased capacity has been put in place to ensure we meet the Authority's targets under Defra's revised approach to fisheries management in European Marine Sites, and additionally to enable the environment team to maintain appropriate standards, achieve its demanding outputs and maintain relevance at regional and national level.

The priority work for the quarter has been to build upon the draft fisheries assessment and subsequent feedback from Natural England, in order to undertake the first suite of assessments of (high-risk) fishing activities in European Marine Sites. Inter-departmental as well as inter-agency working have both been important in order to complete these assessments, as has the detailed review and development of spatial data. In addition to the fisheries assessment work, environment team members have maintained dialogue with the Marine Management Organisation and developer/applicants over consultations covering a range of marine developments.

Assessment of fishing activities in European Marine Sites

This workstream has remained the priority for Environment Team during the quarter. Having drafted a habitats regulations assessment in August 2014, and utilising feedback from Natural England as well as the comprehensive fishing impact reviews compiled by the Eastern IFCA Research team, the environment team have completed a further thirteen assessments of particular fishing activities on particular European Marine Site features during the quarter. These include assessments for beam trawling and dredging in the Wash & North Norfolk Coast SAC, the Wash SPA, and the Alde & Ore SPA⁹. These assessments have identified a range of conclusions regarding impact of those fishing activities on the given site features. The assessments will be submitted to Natural England following an internal quality assurance process.

Where a possible "adverse effect on site integrity" has been identified, the Authority will be required to consider management options in order to mitigate effects. As agreed at the 15th Authority meeting (July 2014), a "site management board" will be convened to discuss management options. Since there are many fishing/feature interactions that require assessment for each European Marine Site (a total of 179 assessments are planned between July 2014 and December 2015 for high-risk interactions across 15 sites; additional assessments will be required for lower-risk interactions), the site management boards will be arranged to consider appropriately-grouped assessments for particular sites and/or particular fishing gear types. Defra requires new management measures to be implemented by December 2016.

Undertaking the habitats regulations assessments has raised several questions, common to all IFCAs (as well as the MMO who are undertaking the same work for European Marine Sites located beyond 6nm). Eastern IFCA officers co-led a national workshop on habitats regulations assessments for fisheries in December 2014, and put forward a proposal to develop a project to assist the quantification of fishing impacts on seabed features. The workshop was organised via the Fisheries in Marine Protected Areas working group and involved Defra, all 10 IFCAs, the MMO, the Environment Agency and national-level advisers from Natural England discussing and scrutinising two draft HRAs for fishing activities in English MPAs. We presented our draft assessment of shrimp trawling activities on intertidal mudflats and subtidal sandbanks in The Wash and North Norfolk Coast SAC.

The session provided a vital insight into the level of rigour expected in these assessments and the need to provide robust mitigations (management measures) when assessments conclude adverse effect on site integrity from the activities. Attendees of the workshop were appreciative of EIFCA's contribution and Natural England advisers proposed formalising our "footprint" approach to measuring fishing impact, recommending the approach be validated and standardised via a brief, externally-completed project funded through the Defra co-

⁹ SAC = Special Area of Conservation; SPA = Special Protection Area.

ordinated Impacts Evidence Group (IEG). We therefore completed a project proposal in the week subsequent to the meeting and gathered the support of the MMO and six other IFCA's; after being scrutinised by the IEG, the proposal was provisionally accepted in January 2015 but awaits confirmation of full funding from Defra.

In addition to the opportunity to develop the fishing footprint concept, officers have identified a need for clarification on management in the case of "in-combination" effects. Essentially, the question is whether the fisheries managers should seek to manage fishing activities in order to mitigate impacts to site features that arise from the combination of fishing activities with other (regulated and un-regulated) activities, although the fishing activities alone were not found to result in an adverse effect on site integrity. This topic is yet to be resolved but will require careful consideration at the forthcoming site management boards; Authority officers will push for clarification through the monthly, national Working Group meetings.

As identified in the gap analysis work undertaken during Q1-2 2014-15, data-gathering remains an important part of the European Marine Site work. The Environment team held a productive meeting with the Lincolnshire Wildlife Trust wardening team at Gibraltar Point in October 2014. This resulted in clarity on the presence and condition of listed site features, and enhanced fishing activity information with observations data, to feed into the screening of fishery/feature interactions and prioritisation of assessments. Further site meetings are planned for other sites within the district during the course of the assessment phase of this work.

Natural England is continuing to support IFCA's and MMO with their assessments of fishing activities on European Marine Sites, through the provision of conservation advice and of feature data. The fisheries assessment project coincides with the updating of conservation advice for all SACs and SPAs, and the provision of conservation feature data layers. The tight timescales that IFCA's and MMO are working within mean we have been required to use existing (old) conservation advice to inform the assessments; Natural England is fully aware of the urgency in providing updated advice and are working with IFCA's/MMO to prioritise the delivery of this advice. Updated advice for the Wash & North Norfolk Coast EMS is due in March 2015. Natural England are also updating their advice relating to *Sabellaria spinulosa* reef. This advice is anticipated in January 2015. It is likely that the revised advice could increase the areas requiring protection from fisheries impacts currently protected under Regulatory Notice 1.

Authority officers have maintained involvement in the Advisory Groups for the Wash & North Norfolk Coast European Marine Site, as well as the management groups for this site and the Stour & Orwell Estuaries EMS. In December 2014, Defra announced its withdrawal of funding for the two EMS management scheme projects. Natural England has in each case bid for local funding to enable it to continue to fund these projects, which support relevant authorities in delivering their responsibilities under the Habitats Regulations in a consistent and cost-effective manner. In addition, these groups provide valuable liaison opportunities with local authorities and other regulators, as well as local stakeholders, and as such provide a useful tool for the Authority's community engagement work.

In addition to the European Marine Site project groups, environment officers represent the Authority in the Southern North Sea Environment Group and the newly-formed Donna Nook Air Weapons Range Conservation Group. Again this provides opportunities to promote the Authority's work and to liaise with partner organisations including regulators and NGOs such as the Wildlife Trusts.

Non-native species

Environment officers joined the Research team in October 2014 to assess the abundance and distribution of Pacific oysters *Crassostrea gigas* on the Gat Sand in the Wash. Pacific oysters were found to be present but in lower densities than those found in a similar survey in 2009. The Authority will increase its focus on the risks posed by non-native species during 2015, through its own biosecurity provisions and in conjunction with the European-funded project "Safeguarding the Environment From Invasive Non-Native Species (SEFINS)", which was confirmed in December 2014 and will be run through the Wash & North Norfolk Coast European Marine Site project.

Protected Areas byelaw review process and rights in common risk assessment

As reported at Agenda Item 7, during the process to introduce the Protected Areas byelaw Defra officials had asked that a formal process be introduced for reviewing Regulatory Notices and that an assessment of the activities of holders of rights in common be undertaken. A process model for issuing, reviewing, varying and revoking Regulatory Notices was developed by the Marine Environment (Spatial Information) Officer with the Deputy Chief Executive Officer; this was subsequently considered at the Regulatory & Compliance Sub-Committee meeting on 25th November 2014 and approved by members.

Members were advised that an initial assessment of holders of rights in common had been undertaken and it had been identified that more in depth work would be required. Members approved the proposal that this work should be undertaken as part of the 2015 Research & Environment Plan.

Stour & Orwell Estuaries Special Protection Area - bait digging

Eastern IFCA officers met with Natural England, Kent & Essex IFCA, and the Suffolk Estuaries Officer in October 2014 to consider management of bait digging within this European Marine Site. Authority officers had requested clarity on the respective roles of Natural England and landowners in managing bait digging activity within the site, which also has Site of Special Scientific Interest (SSSI) designations. The Wildlife and Countryside Act (2000) requires landowners to allow commercial bait collection only under licence, and to issue licences only following consultation with Natural England. This process has not been followed to date; Natural England has agreed to liaise with the landowners on this matter. In the meantime it was resolved to continue with the Code of Conduct for bait diggers and other users of the Stour & Orwell estuaries [the Code encourages behaviours that minimise disturbance to vulnerable overwintering bird populations]. Monitoring of bait digging activity during the 2013/14 winter period showed limited activity in areas highlighted for voluntary closure between November and April, although certain "problem areas" were recorded where activity continued throughout the closed season.

The environment team's habitats regulations assessment of bait digging within this site identified that the activity does not have an adverse effect on site integrity itself, but is likely to contribute to an overall disturbance impact to the site's overwintering bird populations. The mixture of recreational and commercial digging activity taking place, the landowner consenting issues and the disturbance effect in combination with other activities on the site combine to present a complex management scenario that will require careful consideration at site management board. Authority officers will continue to liaise closely with Natural England, Kent & Essex IFCA and the Suffolk Estuaries Officer to identify an appropriate way forward.

New Special Protection Areas

Natural England have advised that an informal dialogue will be held in relation to the proposed designation of new and/or extended SPAs. This will include sites within the Authority's district, and will result in new requirements to consider the impacts of fisheries on the features of these new sites.

Marine Conservation Zones

It is anticipated that Defra will launch its public consultation on the second tranche of Marine Conservation Zones during January 2015. One site in the Eastern IFCA district is likely to be included: Cromer Shoal Chalk Beds. When confirmed that this site is included in the consultation, Authority officers will undertake an assessment similar to that being conducted for European Marine Sites, i.e. to gauge the impact of fishing activities on the features of the proposed site. This will inform whether any management measures will be required for this site, if designated.

Wash Fishery Order

Regulated Fishery

There have been no Regulated Fishery proposals during the quarter so no habitats regulations assessments have been required for these fisheries.

Several Fishery

The final part of the review of Wash Fishery Order (lay) consents has been undertaken by the Project Officer, and is reported at Agenda Item 14. The work included investigation into carrying capacity, i.e. what biomass of mussels within the Several Fishery could impact natural populations of mussels and/or cockles within the Wash via competition for food. This complex question has been addressed through a consideration of nutrient inputs and water movement (hydrodynamics), plankton biology and mussel feeding characteristics. It has not been possible to show that unlimited stocks of mussels within the Several Fishery will not adversely affect natural stocks; therefore a monitoring system has been proposed to measure food availability and trigger management measures (reduced stock density) should these be required.

Horseshoe Point cockle fishery

The Authority's cockle survey at Horseshoe Point (located on the southern bank of the Humber, east of Cleethorpes) in September 2014 identified potential fishable stocks. The site does not currently have shellfish water classification so the Authority has worked with industry members and the local environmental health authority (East Lindsey District Council) to establish a sampling regime in order to achieve harvestable status for this bed. Meanwhile, Authority officers have liaised with Natural England in relation to conservation considerations. The bed is situated within the Humber Estuary Special Area of Conservation, Special Protection Area and Site of Special Scientific Interest (designations that also apply to the Wash, and require a habitats regulations assessment to be conducted for new fishery proposals which are regarded as a plan or project under the regulations). Approximately 10% of these sites fall within the Eastern IFCA district, the majority being within the North-Eastern IFCA district. There is a history of terrestrial access issues at this site, with which Natural England has previous experience; Natural England have therefore undertaken to lead on the habitats regulations assessment for this fishery.

Eastern IFCA input to consultations on marine developments

Twenty-four consultations were received during the quarter. These included three major consultations, namely (i) Lincs, Lynn, Inner Dowsing operations and maintenance MMO licence applications; (ii) Mablethorpe to Skegness sea defence screening request MMO licence application; and (iii) Triton Knoll windfarm Electrical System Preliminary Environmental information.

Major issues raised by the environment team were as follows:

- For the Lincs and LID windfarm O&M application, we followed up on previous concerns about the repeated use of a jack-up vessel in a European Marine Site over a lengthy time period (25 years) and the need to uphold consistency between industry regulation. After a constructive meeting with applicants Centrica, these concerns were resolved and we anticipate a monitoring plan to ensure works do not impact on EMS features. Direct engagement was undertaken with the MMO, Natural England and Centrica in relation to preparing responses and ensuring consistency of approach across regulatory authorities.
- For the Mablethorpe to Skegness (Lincshore) application, we repeated local concerns about replenishment leading to sediment escape and changes to sandbank topography for this ongoing project. We stated that, even if there is evidence to suggest that this pressure is not occurring, local perception is very much that it does occur and therefore this needs to be considered.
- For the Triton Knoll OWF electrical system consultation, we stressed the need for co-location along the planned cable corridor and recommended revisions to estimates of habitat/fishing ground loss in these areas, as well as the need to ensure full cable burial and that risks of snagging to fishing gears are minimised as far as possible.

In order to increase transparency, consultation news items are now routinely placed on the Eastern IFCA website (www.eastern-ifca.gov.uk). Our responses to the Lincs/LID O&M application and the Lincshore application were summarised and published as news items on the website. Links to both news items were also posted on www.facebook.com/eastern.ifca and www.twitter.com/eastern_ifca. This has resulted in an immediate addition of followers after each posting, and triggered dialogue with fisheries stakeholders based in Orford, Suffolk.

Financial implications

No new proposal is contained in this report – it is an information paper.

Publicity

No publicity is planned relating to this paper, other than reference to the Authority's research and environment work on the Authority's website and newsletter.

Background documents

1. Eastern IFCA Research & Environment Plan 2014/15
2. Management of Fishing Activities in European Marine Sites: report to Eastern IFCA Regulatory & Compliance Sub-Committee, November 2014
3. Eastern IFCA MPA project tracker: quarterly report to Defra, 31 December 2014
4. Eastern IFCA Protected Areas Byelaw: Regulatory Notice no.1

Vision

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



Information Item 23

17th Eastern Inshore Fisheries and Conservation Authority Meeting

28 January 2015

Report by: Nichola Freer, Head of HR

Update of HR Activity

Purpose of report

To inform members of the progress of the HR plan to 2015 and specifically an update of the HR activity planned to be completed during this financial year.

Recommendations

It is recommended that members:

- **Note the contents of the report**

Report

Background

The HR plan to 2015 was developed in 2012 and provides a strategic overview of the key HR activity required to support the achievement of Defra's high level objectives. The key activity planned for 2013-14 has been completed and the identified activity required for 2014-15 is to be completed by April 2015.

Plan

The key activities within the 2014 plan are:

- The development of a competency framework for managers
- Employee engagement
- The development of a framework for succession planning
- Review and update of current people policies
- The development of Line Management capability

Update of specific activity

IIP review and re-accreditation

Last November, we were assessed by Investors in People (IIP). The outcome of the Assessors' review at the time was that we were 'working towards the standard' and that we would be re-assessed in a year's time.

During this year we have worked to develop the areas highlighted by the Assessor and we were re-assessed on 26 November 2014. The outcome of the assessment was that we have achieved accreditation as Investors in People. The full report is contained within action item 10 of this meeting.

Supervisory development event

One of the agreements that came out of the executive business planning event in September 2014 was to hold a supervisory event to prepare them for business post transition (April 2015). This has been scheduled to be held in January. During the event supervisors will understand the expectations of them within their roles and be clear as to how to fulfill their roles to the required standard. The learning and development received over the past 2 years will be pulled together and reviewed, with any outstanding gaps identified.

Completion of the 3 year HR plan

The 3 year plan was developed in 2012 when the Head of HR came to post. The overall plan was divided into annual activity plans for 2012/13, 2013/14 & 2014/15. The final activities within the plan are on track to be completed by April 2015. A copy of the overall plan can be seen in appendix 1.

Carrying out the 3 year plan has established robust systems and processes that have created the baseline and infrastructure to enable the organisation to grow and develop as the business demands.

The HR plan beyond 2015 is currently being developed.

Appendices:

1. HR plan to 2015

HR STRATEGIC PLAN TO 2015

Organisational structure HLO1	Performance management HLO1 / 7	Training & Development HLO1	Management systems HLO1	Engagement HLO1 / 7
Terms & Conditions review	Appraisal review process	Review of current capability	Metrics agreed & measures developed	Outputs of IIP review – plan developed
Job descriptions update	Objective setting	Gap analysis and training plans developed	Electronic timesheets	Programme of internal & external surveys
Job evaluation	Competency framework	Suite of solutions established	People policies established	Engagement plan developed
Salary structure review	Personal development plans	Induction programme	Employee handbook	Culture of collaboration & teamwork
	Self-appraisal	Development of line management capability	Recruitment process	
	Succession planning	Evaluation and review process established	Sickness absence procedure	
			H&S processes	