

Success Criteria 2, 3, 4 and 6

By: Chief IFC Officer

To: Kent & Essex Inshore Fisheries and Conservation Authority - 14
 May 2013

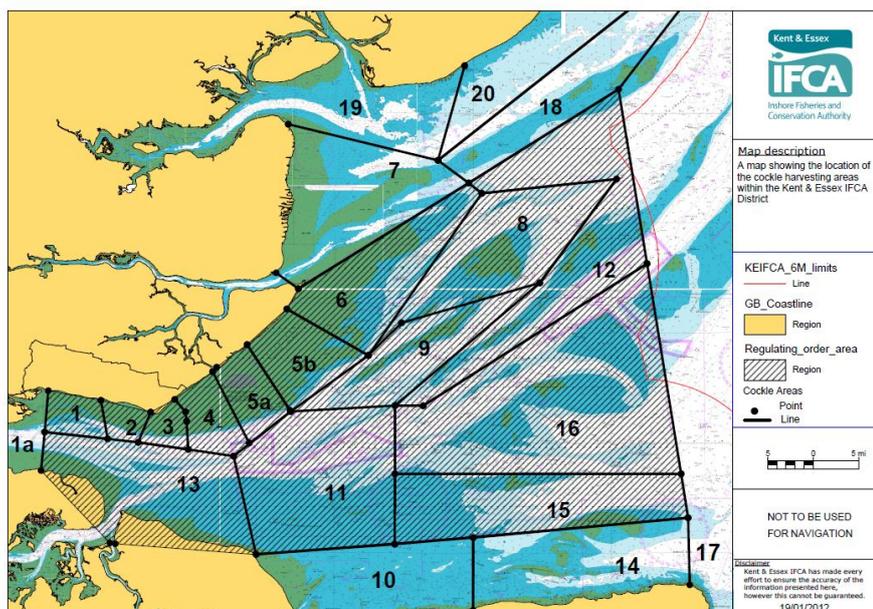
Subject: **REVIEW OF UK AND EU COCKLE MORTALITY EVENTS**

Classification: Unrestricted

Summary: MANAGEMENT OF THE FISHERY OUTSIDE THE AREA OF THE THAMES
 ESTUARY COCKLE FISHERY ORDER

Background to the fishing of the outside areas prior to 2010

- In 1994 KESFC introduced the Thames Estuary Cocker Fishing Order (TECFO). The order created a structure to manage the cockle stocks within this area (chart below) and after legal challenge this area has just been fished by 14 license holders for the last 16 years.



- Outside the regulating order area KEIFCA manages the cockle stocks using byelaws. The primary byelaw requires vessels that fish for cockles in this area to

apply for a permit and comply with other byelaws including those related to gear construction and spatial and temporal closure. Historically the sites outside the regulating order have been managed by closing all the beds in the district and then opening them at specific times based on information gathered by stock assessments.

- Generally cockle beds outside the regulating order have been opened for 1-4 weeks, with the decision to close based on catch rates dropping below 1 tonne an hour. Historically a large number of vessels (15-40) mainly from the Thames and from the Wash apply for permits and tend to fish either on the Dengie, Buxey and Ray Sands off the Essex coast (area 7) or Minnis Bay (Area 10) off the Kent coast (although other areas have been fished from time to time). Although the fishing duration can be less than a month the value of the cockles harvested from these sites has been up to £1.5M at first point of sale.
- Opening the outside areas will inevitably mean that there will be a large influx of vessels from the Wash, as a result of the significant period for which the fishery has been closed in recent years, and the desire to maintain track record.

Background to the decision not to open the outside areas in 2010 - *Mass Mortalities in Cockle Stocks*

- There have been several reports of mass mortalities of cockle stocks in the UK and Northern Europe over the last 50-60 years. Unfortunately it is often very difficult to identify a specific cause, however in some specific cases, especially when stocks are stressed, parasites and diseases have been thought to play a major role in perpetuating any decline (see Appendix A for more details).
- Although mass mortalities have been observed within the commercial cockle beds in the Burry Inlet annually since 2002, there was a general assumption that the mortality event was specific to this area.
- In 2008 the Wash cockle fishery started to suffer significant cockle mortalities with losses reported to be as high as 14,000 tonnes. In 2009 the Wash cockle fishery continued to show significant mortalities (estimated to be 6,000 tonnes) and although the hand rake fishery remained open, the lack of available stock meant that the dredge fishery was closed (this management regime continued for 2010, 2011 and 2012).
- In responding to the long term 'atypical' cockle mortality issues in the Wash KESFC/KEIFCA worked closely with CEFAS/ Fish Health Inspectorate (the national organisation with the responsibility to control any movements of potentially harmful parasites or diseases) to review the risk and to manage any potential shellfish issues relating to the spread of any harmful agents. The Fish Health Inspectorate stated that:

"we do not have any firm evidence of any specific pathogen related to the mortalities, and the investigation is continuing. We have not found any listed disease in any of the samples we have analysed, so do not have any reason to apply controls under the Aquatic Animal Health (England and Wales) Regulations 2009."

- From a KEIFCA perspective it is exceptionally difficult to manage such an unknown and unquantifiable potential threat, and to make any management measures proportionate to the potential threat. In 2010 the KESFC decided to take a precautionary approach on the possibility of spreading the cause of high

cockle mortality in the Wash area by maintaining the closure of cockle beds outside the area of the Regulating Order. This decision has been reviewed each year by the KESFC/KEIFCA since then and the Authority has decided to maintain its precautionary approach and keep the beds closed to all cockle fishing vessels.

The cockle fishing that has taken place between 2010 and 2012

- Although the areas outside the TECFO have remained closed the cockle fishery within the regulating order has remained open. The vast majority of cockle boats fishing in this area remain in the district all year round, however a small number of vessels have fished (generally for species other than cockles) outside the district.
- Although all the vessels fishing for cockles within the TECFO land within the Thames, a large number send their cockles up in bags to Kings Lynn and Boston (the Wash) to be cooked. The cockle bags are then sent back from the Wash to the Thames. Efforts have been made by the vessels working in the TECFO to make sure these bags are cleaned and not used by the Wash fishermen.
- Over the last 3 years whilst the outside areas have been closed, the activity of the vessels fishing for cockles within the TECFO does not seem to have resulted in mortality events in the Thames. Other fishing vessels (trawlers etc.) that target a range of other species have also fished in both the Wash and the Thames during this period. Developing a Code of Practice that replicates these principles on a wider scale might prove useful.

The work that has taken place between 2010 and 2012

- KEIFCA officers have attended national shellfish meetings and specific meetings over the last decade where officers have been kept informed of the issues concerning mass mortalities in the Burry Inlet. KEIFCA officers have also attended specific meetings concerning investigations into the Wash shellfish and cockle stocks.
- KEIFCA officers have worked with CEFAS to analyse the condition of cockles from the Thames. The results generally have shown that there are low levels of parasites and infections (as would be expected in most cockle stocks) and although these could be harmful in the future, the current levels are seen as relatively normal and not posing an immediate risk.
- Officers from KEIFCA have worked with partner organisations through the IFCA Technical Advisory Group (TAG) and through the Shellfish Association of Great Britain (SAGB) to assess the national picture of cockle stocks and to look at possible future management options and shared research projects. Although this work has been constructive, different areas and originations find themselves in different positions and it has become evident that there was no appetite for such a solution.
- In the light of this the Authority approved a consultant (Dr Woolmer from Salacia-Marine) to deliver a project to review knowledge of UK and EU cockle mortality events and assess options for preventative management of the Thames stock (Appendix A).

The options available and recommendations

- As has been highlighted previously, the decision to be made by the Authority is not straight forward. Dr Woolmer's report paints a picture of several large national cockle stocks seemingly being affected by 'atypical' mortality (Appendix A summary). However there is still no further progress on what is causing this atypical mortality.
- In his report to the Authority Dr Woolmer categorises a number of generic risks; physical environmental factors, chemical and industrial pollution and pathogens and disease. Of these risks, the generic risk from pathogens and disease has been classed as high, however he does suggest a number of measures are that could mitigate and lower this risk, with the cooperation of the industry.
 - Develop a protocol ensuring that any vessel and associated cockle fishing equipment entering the Thames cockle fishery area with the intention to fish for cockles has been cleaned and is free of cockles and cockle debris.
 - Develop a protocol that all cockle bags used in the Thames cockle fishery are free from cockles and cockle debris
 - These protocols may be applied to vessels engaged in other fisheries e.g. mussels and shrimp, to ensure that the inadvertent transfer of cockles or cockle debris is avoided.
 - Promote and support further research into potential diseases that may be the underlying cause of "atypical" mortality.
- The difficulty in promoting and enforcing such a scheme it that KEIFCA does not have the power under its cockle permit to require and enforce such a Code of Practice (Appendix A) and introducing these measures would have to be on a voluntary basis. KEIFCA would work closely with CEFAS/ Fish Health Inspectorate to develop and promote such a code, however the only option available to KEIFCA, under the byelaw, if the code is broken would be to close the fishery.
- The other option available to KEIFCA is to continue with the precautionary approach and not open the cockle areas outside the Thames Estuary Cockle Fishery Order in 2013 but to continue to work with partners to better understand and manage the risks to the fishery.

The potential next steps of opening the fishery

If the Authority is minded to open the fishery, KEIFCA officers would take the following steps:

- To send the draft code of practice to cockle fishermen in the Thames/ Wash and CEFAS/ Fish Health Inspectorate to for comment. Following this, officers would hold a meeting with these parties to develop the code of practice and explore how it would work. The results of which, as well as assessment of how compliance to the code would be assessed, would be submitted to the Authority at the next KEIFCA meeting for review and approval (5 September 2013).
- To carry out the usual annual stock assessment of the cockle areas outside the TECFO and report the findings to the Authority at the next meeting.

- To require all applicants requiring a permit to fish in the cockle areas outside the TECFO to apply before 21 August 2013. This will allow KEIFCA officers to recommend a Total Allowable Catch (TAC) at the next Authority meeting (setting a TAC helps both the industry and KEIFCA better prepare for the fishery). Other relevant management measures aimed at promoting a sustainable fishery could also be submitted to the Authority at this meeting.
- KEIFCA officers would work on the assumption that the cockle areas outside the TECFO would be opened on 6 October 2013, after the cockle fishery inside the TECFO had finished. Although opening the cockle beds is not ideal from a cockle harvesting perspective (cockle meats are traditionally at their best in August/September), opening the cockle areas outside the TECFO will require significant enforcement and management resources, staggering the fisheries would best help KEIFCA officers utilize their resources. It is hoped that once the fishery is opened successfully and the Code of Practice is adopted by the industry, the time of opening can be reviewed in future years.
- Opening the fishery after 6 October 2013 would also give all fishermen a month (after the final decision to open the fishery is made at the Authority meeting on 5 September 2013) to set up their vessels to meet the byelaw and Code of Practice requirements.

The legal process the Authority has to follow

The wording of the permit byelaw used to manage the cockle fishery requires 2 actions to be taken if the Authority is minded to open the cockle beds outside the TECFO:

STEP 1: The first is that the Authority has to decide to close all the cockle beds for the following year (thus offering year round protection to the cockle beds). This was done at the November meeting last year (2012); it has to be done at that meeting because any issued permits are valid from 1 January.

STEP 2: The next decision is then to decide to open the beds. This is usually for a fixed period of time or until certain fisheries management conditions have been met i.e. the Total Allowable Catch (TAC) has been caught.

Request for Instructions

The Authority is asked to give **INSTRUCTION** on whether to:

- a) Consider opening the outside area cockle beds for a period in October 2013. A final decision would be dependent on information gathered by officers relating to the proposed code of practice, to cockle stock data gathered for this area and to the development of management measures that satisfy the Authority that the stock can be fished sustainably. Papers on these subjects would be submitted to the next Authority meeting on 5 September 2013.
- b) Take the decision now to not open the cockle beds outside of the Thames Estuary Cockle Fishery Order, therefore maintaining the current status quo.