



Agenda Item.B4

By: Lead Scientific and Conservation Officer

To: Kent and Essex Inshore Fisheries and Conservation Authority – 20 May 2016

Subject: **COCKLE FISHERY (TECFO LICENCED FISHERY MANAGEMENT)**

Classification Unrestricted

Summary: This report provides a summary of the spring 2016 cockle stock assessment surveys and outcomes of the annual cockle licence holder meeting. Resulting recommendations on the management of the 2016 licenced cockle fishery inside the Thames Estuary Fishery Order area are included in this report and members are asked to review and approve this recommended management of the 2016 cockle fishery.

Recommendations –

- **The Total Allowable Catch (TAC) should be set initially at 6160 tonnes and that information related to the stocks will be continually reviewed throughout the season to ensure future sustainability.**
- **Allocation of additional TAC, and therefore extension of the fishing season, may be made in the event of previously unknown or un-surveyed stocks of cockles being located, conversely if by monitoring of catch rates stocks in individual areas are shown to be falling then those areas may have to be closed.**
- **That the Chief IFCO be authorised, after consultation with the Chairman and Vice Chairman, to implement changes to fishing controls within the limitations of the agreed TAC.**
- **That the fishery will commence at 21.00 hrs on 26th June 2016.**

- **Provisional fishing allocations will be as follows:**

The fishing season will be divided into weekly specified fishing periods which will run from 21.00 hrs on Sunday to 12.00 hrs on Friday and during these periods licence holders will be permitted to make the following specified numbers of landings (Reg. No. 7).

26th June – 15th July (3 weeks)	2 specified landings per period
17th July – 23rd September (10 weeks)	3 specified landings per period
25th September – 7th October (2 weeks)	2 specified landings per period

- **The maximum quantity of cockles that may be landed or carried on board will remain at 13.6m³/500 baskets per fishing trip (approx. equivalent 11 tonnes).**
- **Sections of Areas 1, 2 and 3 should be closed at all times during the period June - September inclusive.**
- **The licence fee will remain the same as 2015; at £5346**
- **That the number of licences should be restricted.**
- **The Regulating Order gives a right, to those that held a licence last year, to be granted a licence for this coming season and therefore those 14 licences should be granted as adequate stocks are available.**
- **Update the TECFO 1994 with standardised wording to maintain consistency and best practice between the two cockle fisheries**

1. THAMES ESTUARY COCKLE FISHERY ORDER 1994

1.1 2015 Cockle fishery

As previously reported, the cockle fishery within the area of the Thames Estuary Cockle Fishery Order (TECFO) opened between 14th June and 16th October 2015 with a total of 16 weeks fishing. During this period a total of 6561 tonnes were landed from within the TECFO area.

1.2 Spring 2016 Cockle Stock Surveys

1.2.1 Method

Stock surveys on the main harvesting areas of the Maplin and Foulness sands commenced on 24th March over the low ebb spring tides which gave best access to the drying sands that extend out to three miles offshore in some sections (a chart showing the cockle management areas is attached at Appendix A). These surveys took six days to complete, covering a total area of 57.8 km² (22.3

miles²) and a total of 430 quadrat samples were taken. The sandflats were accessed from land using two Honda All-Terrain Vehicles for transportation and cockles were dug out from a 0.1 m² quadrat at each sample point, counted, weighed and the age determined (the method is described in more detail in the annual cockle report). The surveys were undertaken by the Authority's officers in teams of two. It is necessary to complete surveys during periods of spring tides when the ebb tide leaves the sands dry and these tide times result in the surveys being carried out around sunrise.

Whilst undertaking these surveys, additional samples were collected for Marine Ecological Surveys Ltd that are working for DP World to assess whether port dredging has an impact on cockle stocks.

1.2.2 Results

Analysis of the survey results show that there are fewer cockles on the Maplin and Foulness sands in the spring 2016 survey compared with any of the previous 10 years (fig. 1). The amount of spat in autumn 2015 was also the lowest measured since 2008 (fig. 2). In the spring 2016 survey there was little difference in the number of spat compared to the previous autumn survey. As there are usually considerable losses of spat over the first winter due to natural mortality and predation, this indicates that there was a late spat fall, not detected by our autumn survey.

Despite low overall stock of cockles, survival of the 0 and 1 year age classes was higher over the winter of 2015/2016 compared with the winter of 2014/2015. The 2013 year class experienced severe mortalities across the areas surveyed during the 2013/2014 winter, with only 3% survival in area 6. This severely depleted 2013 age class remains a limiting factor for the TAC that can be set this year. In addition, relatively low spat fall in 2014 (fig. 2) meant that recruitment into the adult stock in 2015 was lower than in previous years.

The graphs below show the latest stock situation.

Fig. 1: Abundance of cockles from 2004 to 2016 in the main cockle harvesting areas of the Maplin and Foulness sands.

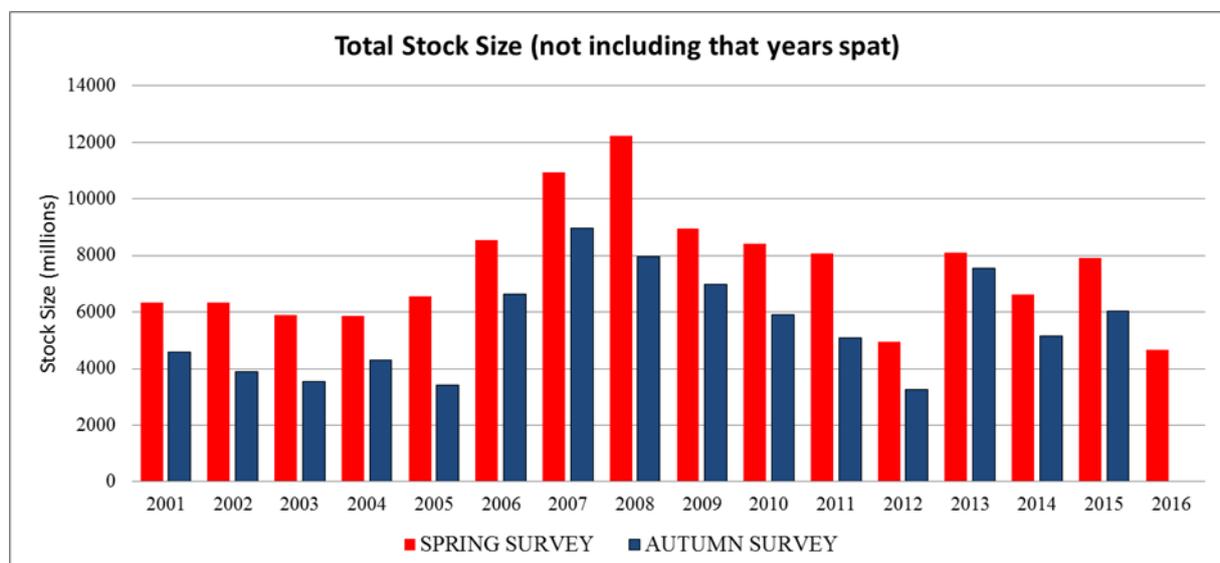
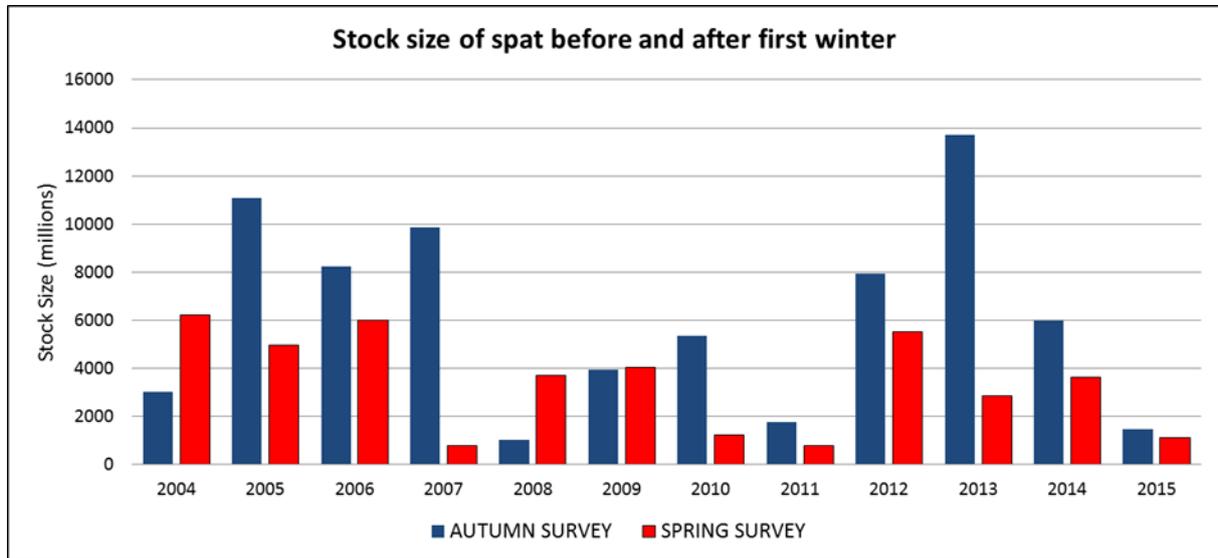


Fig. 2: Abundance of spat before and after the first winter from 2004 to 2016 in the main cockle harvesting areas of the Maplin and Foulness sands.



Surveys of additional cockle grounds beyond the major harvesting areas have also been completed. There is a higher biomass in areas 2 and 3, although it is still at low levels and contributes a small amount to the overall TAC.

1.2.3 Conclusion and TAC

Analysis of survey data indicates that the recommended Total Allowable Catch (TAC) that can be taken from the major beds will be 6160 tonnes; 400 tonnes less than was landed in 2015 and the same TAC that was set in 2014.

Despite low recruitment into adult stock last year due to a low spat fall in 2014, survival was high over the 2015/2016 winter. Recruitment this year will again be a key point in the sustainability of the fishery.

1.2 Cockle Licence holder meeting

On 4th May a meeting was held with the cockle fishery licence holders at the town council offices in Leigh-on-Sea. The management of the 2016 fishery along with specific dates for the fishery and the number of trips per week were discussed and the details reported here were agreed by the licence holders.

1.3 2016 Fishery Management

Following consideration of the previously discussed items I **RECOMMEND** the following management measures. If additional licences are issued it will be necessary to review management allocations.

(a) An initial Total Allowable Catch (TAC) should be set at 6160 tonnes and that further information related to the stocks will need to be continually reviewed throughout the season to ensure future sustainability.

(b) That a further allocation of additional TAC, and therefore extension of the fishing season, may be made in the event of previously unknown or un-surveyed stocks of cockles being located, conversely if by monitoring of catch rates stocks in individual areas are shown to be falling then those areas may have to be closed.

(c) That the Chief IFCO be authorised, after consultation with the Chairman and Vice Chairman, to implement changes to fishing controls within the limitations of the agreed TAC.

(d) That the fishery will commence at 21.00 hrs on 26th June 2016.

(e) Provisional fishing allocations will be as follows – this is subject to discussions with licence holders and will be reported on verbally. This will also be subject to further amendment.

The fishing season will be divided into weekly specified fishing periods which will run from 21.00 hrs on Sunday to 12.00 hrs on Friday and during these periods licence holders will be permitted to make the following specified numbers of landings (Reg. No. 7). This will maximise production when meat yields and quality are at their best.

26th June – 15th July (3 weeks) 2 specified landings per period

17th July – 23rd September (10 weeks) 3 specified landings per period

25th September – 7th October (2 weeks) 2 specified landings per period

(h) The maximum quantity of cockles that may be landed or carried on board will remain at 13.6m³/500 baskets per fishing trip (approx. equivalent 11 tonnes).

(i) As is usual it is recommended that sections of Areas 1, 2 and 3 should be closed at all times during the period June - September inclusive. These areas are defined as inshore sections of Areas 1, 2 and 3 from Two Tree Island at Leigh-on-Sea in the West to The Coastguard Station at Shoeburyness in the East and also within the area of Shoeburyness East Beach. (This closure applies only to the area inside the moorings and where there are no moorings closer to the shore than a distance of 300 metres measured from mean high water mark.)

Note: Within Areas 1 and 2 Southend Borough Council licencing conditions apply.

(j) Operating costs for the 2015 fishery included an additional £378 compared to 2014 to cover the costs for using the new vessel monitoring system (VMS+) installed as a requirement from MMO on all cockle boats. The cost of VMS+ will remain the same this year and operating costs of the fishery will be kept to a minimum, therefore the licence fee will remain the same as 2015, at £5346.

Financial Implications:

None identified in relation to agreed budget headings.

Recommendations:

The Authority is asked to **APPROVE** the recommendations (a) to (j)

1.4 Consideration of Issuing Cockle Fishery Licences - Formal Procedure

The Thames Estuary Cockle Fishery Order gives rights to a licence for those that have held licences during the previous 24 months (section 4(8)(b)). The Authority may also issue, subject to directions given by the Minister, licences in such numbers and to such persons as it may determine as defined in section 4 (5) of the Order.

It will be necessary to proceed with the following formal procedure by considering whether to limit the number of licences that will be issued and if so how many and to whom these should be granted.

As required by the Order, consultation has taken place with those likely to be substantially affected by a limitation on the number of licences issued. This consultation was undertaken via a letter sent to persons likely to be substantially affected. Interested parties were made aware that they could provide representation in writing or apply to the Authority to speak to this meeting – 8 written requests for additional licences were received. These are included in Appendix B.

Consideration will need to be given to the level of stocks and future prospects for the fishery. Last year the Authority resolved that no additional licences would be granted for the 2015 fishery and that licences would only be issued to the existing 14 licence holders.

Once a decision has been made by the Authority it will be necessary to inform the Minister to allow him to give directions if so decided under Section 4(5) of the Thames Estuary Cockle Fishery Order.

1.5 Maintaining legislative consistency between the TECFO and the permit fishery

Last year the Authority introduced a new flexible permit byelaw for the outside area which replaced six old byelaws and two emergency byelaws which applied to the old SFC district. The original byelaws had to be revoked at this time. In order to maintain consistency in the management of the two cockle fisheries there are some existing measures which require an update of the Thames Estuary Cockle Fishery Order 1994. Regulations 1 and 6 would require an amendment and a new regulation would be used to confirm maximum vessel size. The wording below is that which is used in the cockle flexible permit byelaw previously approved by the Authority and which officers would intend to apply to

Minister to apply to the TECFO 1994. The parts of the regulations in bold are the modified text:

REGULATION No. 1 - CONSTRUCTION OF INSTRUMENTS AND FISHING GEAR

No person shall, without the written consent of the Authority, operate any instrument or fishing gear for the purpose of taking, riddling, sorting or grading cockles unless all surfaces acting to retain the catch be constructed of parallel bars with an average space between bars of no less than 16 millimetres.

This requirement shall not apply to pipes used to convey water or catch between the seabed and any fishing vessel.

The Authority may give written consent for the use of instruments or fishing gear, otherwise prohibited by this Regulation, to all licence holders for a specified area and for a specified period of time for specific purposes including the thinning of overpopulated stock, removal and thinning of cockles which have not shown good growth or for the purposes of relaying. Consent will only be given where the Authority is satisfied that the quality of a bed would be enhanced by the removal of cockles.

When operating within Harvesting Areas 1, 2, 3, 4 & 5a described in Part I of the Schedule and shown for illustrative purposes only on the map in Part II of the Schedule, no person shall operate equipment used for the purpose of riddling, sorting or grading cockles unless all surfaces acting to retain the catch be constructed of parallel bars with an average space between bars of no less than 16 millimetres and no more than 16.5 millimetres.

No person may operate cockle harvesting equipment unless it incorporates a riddle which is at least 1750 millimetres in length and which is designed and operated so that the retained cockles are in contact with the riddle for its full length.

No person may operate cockle harvesting equipment which is in contact with the seabed which has an opening aperture, blade or rake measuring more than 760 millimetres in width.

No person may use at any time or carry on board more than one piece of cockle harvesting equipment which is designed to be in contact with the seabed

REGULATION No. 6 - CARRIAGE OF COCKLES

No person shall carry on board or remove cockles from the Thames Estuary Cockle Fishery Order 1994 unless they are loaded into bags or containers that have a capacity of 1.13 cubic metres.

*All such bags or containers shall be clearly marked with a load line if capacity is not level with the top of the side surfaces **above which cockles may not be loaded***

The capacity of all such bags or containers shall have been checked by an officer of the Authority and shall be marked to show that this check has taken place.

REGULATION No. 9 – SIZE OF VESSEL

No person shall harvest cockles using a relevant fishing vessel which:

- (a) exceeds 14 metres in overall length; or**
- (b) exceeds 5 metres in overall width.**

Financial Implications:

None identified in relation to agreed budget headings.

Recommendation –

- **Firstly it is recommended that the number of licences should be restricted.**
- **The Regulating Order gives a right, to those that held a licence last year, to be granted a licence for this coming season and therefore those 14 licences should be granted as adequate stocks are available.**
- **Consideration will also need to be given to whether additional licences should be issued and if so how many.**
- **Update the TECFO 1994 with standardised wording to maintain consistency and best practice between the two cockle fisheries.**

1.6 Fishing in Marine Protected Areas

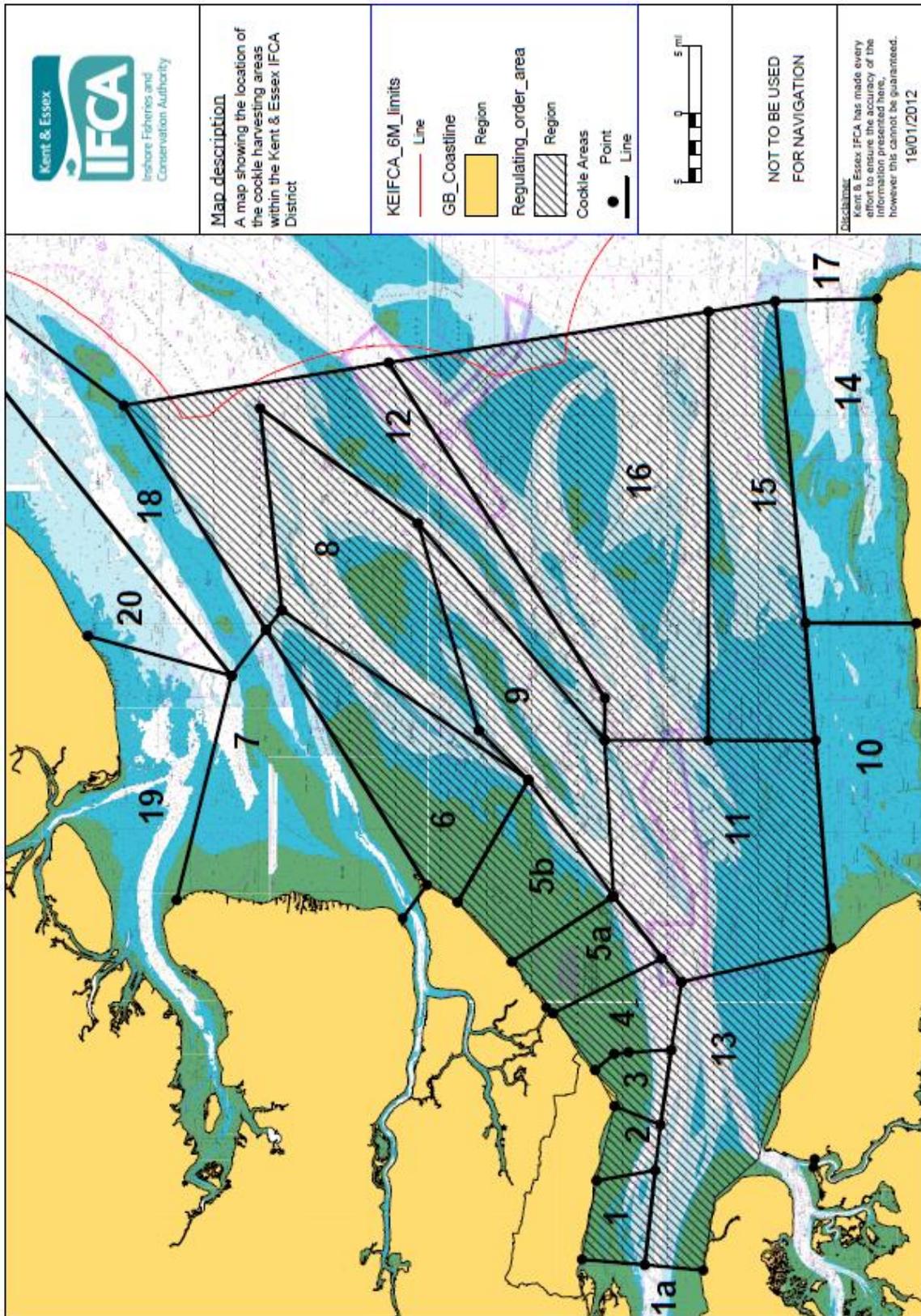
Under Regulation 48(3) of the Conservation (Natural Habitats) Regulations 1994, Wildlife and Countryside Act 1981 and the Countryside and Rights of Way Act 2000 the Authority is required to give notice to Natural England of intention to issue licences to fish for cockles within designated SSSI, EMS and Ramsar inter-tidal sites. The Authority's management of the TECFO area cockle fishery is subject to a Habitat's Regulation Assessment as it occurs within several European Marine Sites (Essex Estuaries SAC, Mid-Essex Coast SPA, Thames Estuary and Marshes SPA and Outer Thames SPA). The required appropriate assessment of the impacts of this fishery on protected features has been updated from previous years to be consistent with the approach adopted under the Defra revised approach to managing fisheries in European Marine Sites. VMS data collected in 2015 was a key part of the assessment, allowing a 'fishing footprint' to be calculated and further monitoring of VMS data will be an important factor in order to assess any impacts of cockle suction dredging. This appropriate assessment was submitted to Natural England for advice and we are currently awaiting a response.

Financial Implications

None identified in relation to agreed budget headings.

Recommendations:

No decision is required other than Members are asked to **NOTE** this report and make **COMMENT** on it



A chart showing the cockle production areas within the Kent and Essex IFCA District

Appendix B to Agenda item B4

Responses received for additional licences