



Agenda item B3

By: Assistant Chief IFCO

To: Kent and Essex Inshore Fisheries and Conservation Authority – 25 May 2021

Subject: Cockle TECFO Licenced Fishery Management

Classification **Unrestricted**

Summary:

This report provides a summary of the spring 2021 cockle stock assessment surveys and outcomes of the annual cockle licence holder meeting. Resulting recommendations on the management of the 2021 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 2021 cockle fishery.

Recommendations –

Note: If additional licences are issued it will be necessary to review management allocations.

In respect of the Thames Estuary Cockle Fishery Order:

- (a)** The Total Allowable Catch (TAC) should be set initially at 6,160 tonnes and that information related to the stocks will be continually reviewed throughout the season to ensure future sustainability.
- (b)** Allocation of additional TAC, and therefore extension of the fishing season, may be made in the event of significant new beds of cockles being located in the first four weeks of the fishery, to allow time for any necessary survey work. Reduction in TAC, and therefore a reduction in the number of trips, may be made in the event of very poor growth in the size of cockles.
- (c)** That the Chief IFCO be authorised, after consultation with the Chairman and Vice Chairman, to implement changes to fishing controls to ensure future sustainability including for the purposes of (b). These will be communicated to Members following decisions being made.

(d) That the fishery will commence at 1800 hrs on 20 June 2021.

(e) Provisional fishing allocations will be as follows, this will also be subject to further amendment;

The fishing season will be divided into weekly specified fishing periods which will run from 1800 hrs on Sunday to 1900 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.

20 June – 16 July (4 weeks)	2 specified landings per period
18 July – 10 September (8 weeks)	3 specified landings per period
12 September – 8 October (4 weeks)	2 specified landings per period

(f) 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).

(g) All areas of the TECFO will remain open, with the exception of Area 15 which remain closed throughout the length of the fishery.

(h) 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.)

In respect of the licence fee:

(j) The licence fee will remain at £6,244

In respect of the issuing of additional Cockle Fishery Licences:

(k) That the number of licences should be restricted.

(l) 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.

1. THAMES ESTUARY COCKLE FISHERY ORDER 1994

1.1 2020 Cockle fishery

As previously reported, the cockle fishery within the area of the Thames Estuary Cockle Fishery Order (TECFO) opened between 29 June 2020 and 2 October 2020 with a total of 16 weeks fishing. During this period a total of 7,472 tonnes were landed from within the TECFO area.

1.2 Spring 2021 Cockle Stock Surveys

1.2.1 Method

Stock surveys on the main harvesting areas of the Maplin and Foulness sands commenced on 9 April 2021 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 five days to complete, covering a total area of 69.8 km² (22.3 miles²) and a total of 519 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 four. 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 a high number of cockles on the Maplin and Foulness Sands (fig. 1). The stock is currently underpinned by a large 2018 year class, which has shown high survival through the previous few winters. Poor recruitment was experienced during 2020, and this is now starting to impact upon the TAC which can be set for the fishery, despite there being good numbers of adult cockles remaining. It remains to be seen what the recruitment picture is for 2021.

Stock on the Maplin Sands is, from an adult stock perspective, at a reasonable level, although lower than last year, as expected. This adult stock is as a result of a particularly strong 2018 year class which was the final year of the exceptional recruitment events seen between 2016 and 2018. During 2019 recruitment was poor, whilst in 2020 recruitment moved back into the normal range, albeit at the lower end of that range. These 2020 year class cockles are not expected to reach the minimum commercial size of 16mm until the end of this year and so are not included within the TAC, as is normal. As a result, whilst stocks of adult, commercially sized cockles are good, a conservative approach must be taken in the setting of the 2021 TAC in light of the smaller year classes which are currently coming through.

The graphs below show the latest stock situation.

Fig. 1: Abundance of cockles from 2004 to 2021 in the main cockle harvesting areas of the Maplin and Foulness sands.

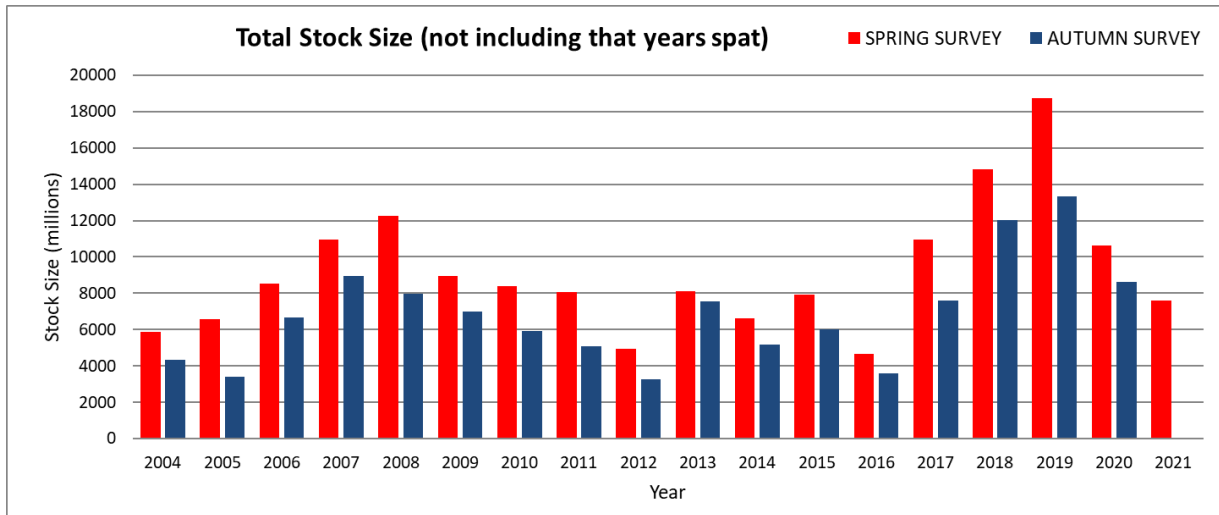
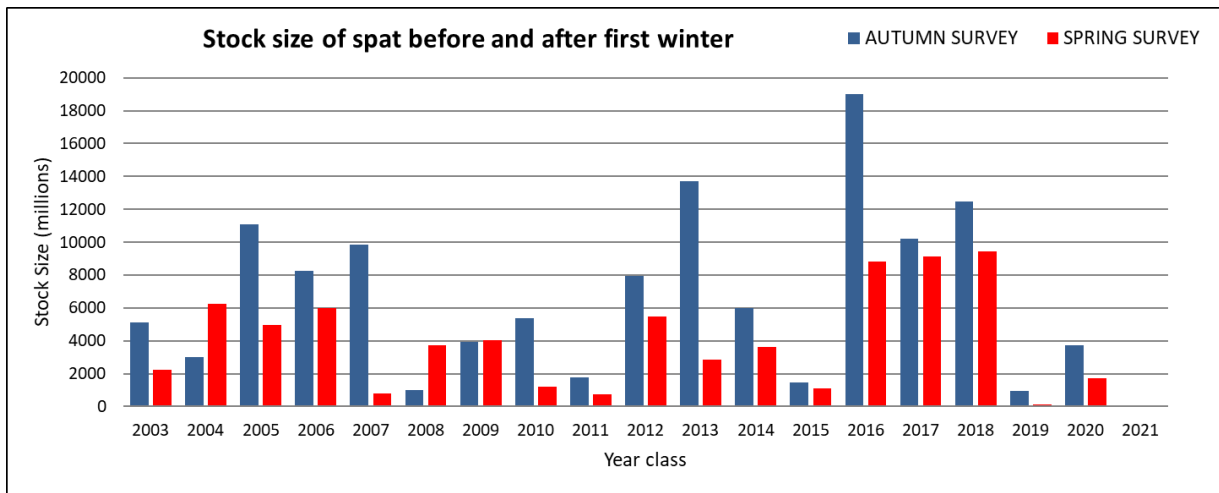


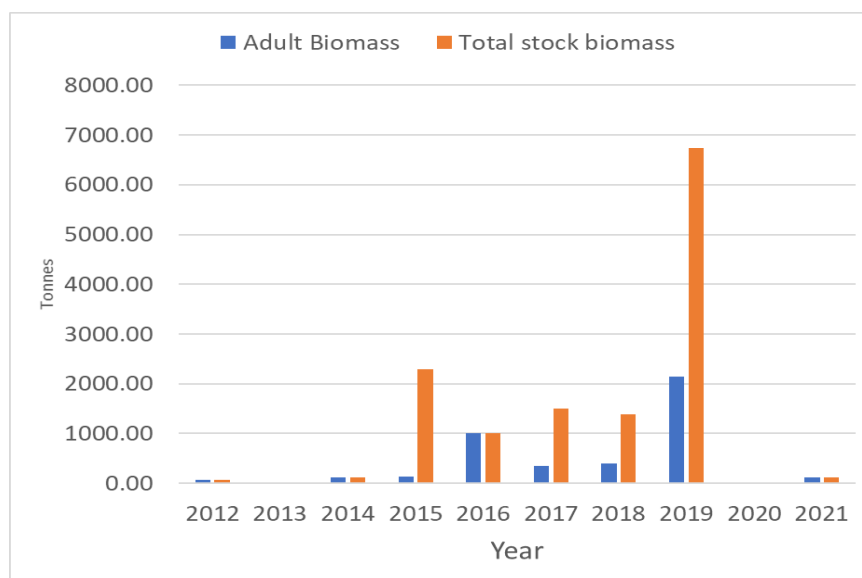
Fig. 2: Abundance of spat before and after the first winter from 2004 to 2021 in the main cockle harvesting areas of the Maplin and Foulness sands.



Surveys of additional cockle grounds beyond the major harvesting areas have also been completed. Areas 8, 9 and 12 have proven to be very productive in recent years, and area 15 (North Margate Sands) produced significant numbers of cockles in 2020 with over 1500 tonnes being removed by the fleet, which was unexpected as this area had not been fished for over 13 years. Whilst beds within areas 8, 9 and 12 were already surveyed, none of area 15 was. As a result, the survey was expanded this year to cover area 15 and some additional beds within area 9. All of these areas have been considered when setting this year's TAC.

Areas 8, 9 and 12 do not appear to contain the same numbers of cockles this year as they have in recent years. Area 8 in particular has a good dataset which goes back several years, this can be seen in figure 3 below. From the peak in 2019, when the area produced very good quantities of cockles, it can be seen now that the stocks have reduced substantially. A similar number of cockles were seen on area 9 and 12, and whilst there are still multiple trips remaining for the fleet in these areas, they will not be producing at the same level as recent years.

Fig. 3: Biomass of cockles on Area 8 East Barrows between 2012 and 2021



Area 15 has not been fished since the early 1990s, but last year the industry found significant stocks on the northern edge of the Margate Sands. The areas which were fished were surveyed this year and whilst some cockles were located, there is only just over 1 trip of the fleet (154 tonnes) remaining on that area once the 'rule-of-thirds' management is applied. As a result, given that it has been so long since the area produced any cockles, officers recommend that area 15 be closed to preserve the remaining stock and to provide recruitment potential over the next two years.

1.2.3 Conclusion and TAC

The extremely high spat falls of 2016 to 2018 were followed by a year of poor recruitment in 2019 which was in turn followed by a 2020 recruitment event which falls into the lower end of the normal range. Recruitment during 2021 will be crucial to the fishery in 2022 and beyond.

Analysis of survey data indicates that the recommended Total Allowable Catch (TAC) that can be taken from the beds will be 6,160 tonnes. This is a conservative figure taking into account the current stock level across multiple sites as well as the recruitment events of 2019 and 2020 which mean that the current adult stock will be relied upon for both commercial purposes and for recruitment of future year classes.

1.3 Cockle licence holders meeting

On 11 May a meeting was held with the cockle fishery licence holders on Zoom. The management of the 2021 fishery along with specific dates for the fishery and the number of trips per week were discussed and the majority of the details reported here were agreed by the majority of the licence holders.

However, officers received strong representations from some licence holders and their representatives that Area 15 – North Margate Sands should remain open and be fished. The accuracy of the survey was questioned as some of the licence holders believe that there were significant quantities left there at the end of the 2020 season. During 2020 the licence holders removed just over 1500 tonnes of cockles from the Margate Sands, these cockles were amongst the very best, biggest and most valuable cockles ever landed from the Thames Estuary, as a result it is understandable that industry would want to be able to harvest from there again.

The surveys, which were carried out using the exact same methodology as for the rest of the cockle fishery within the District and at the same time of year as the other surveys, concluded that there was only 1 trip of the fleet left on that area leading to the officers' recommendation that the area be closed to prevent overfishing and to provide potential for a future stable stock on this area.

Officers have committed to undertaking an additional survey on this area, from the middle of July, to allow an early overview of the amount of recruitment on the site to see whether the hoped-for spatfall takes place. This will help us broaden our understanding of what is a poorly understood area and provide more data that can give us an indication of the stability of this bed. Once the data has been collected and analysed the management of the area will be reviewed following our normal criteria and consideration will be given to whether this area can be opened later in the season.

1.3 2021 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) The Total Allowable Catch (TAC) should be set initially at 6,160 tonnes and that information related to the stocks will be continually reviewed throughout the season to ensure future sustainability.

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(c) That the Chief IFCO be authorised, after consultation with the Chairman and Vice Chairman, to implement changes to fishing controls to ensure future sustainability including for the purposes of (b). These will be communicated to Members following decisions being made.

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

The Authority is asked to **APPROVE** the above recommendations.

1.4 Licence Fees

Several factors influenced the increase in licence fee in 2018. This year the intention is for no increase in the basic amount as the full cost of administering the fishery each year since has been covered.

The Authority is asked to **APPROVE** that the licence fee will remain at £6,244.

1.5 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 interested parties, who were made aware that they could provide representation in writing or apply to the Authority to speak to this meeting; four 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 2020 fishery and that licences would only be issued to the existing 14 licence holders.

Although initial indications of the stock are good for this year, the stock is in a period of downward trend. The stock levels this year are a result of unforeseen excellent winter survival over the 2018/19 winter and mild 2020 winter, given the constantly evolving and developing MPA landscape the fishery is operating within it would seem prudent to require a stable stock level prior to issuing more licences. The very low 2019 and 2020 spat falls also indicates that the stock is subject to significant fluctuations, with a significant reliance now on the 2021 spat fall.

Following the guidance of the Authority in 2019, work did begin on a framework to review the number of licences however this was halted early in 2020 due to COVID-19. Due to this unprecedented situation no further work was carried out and therefore it is not possible for this work to have an impact on the number of licences for this year.

Members will be aware that the TECFO 1994 is in force for a period of 30 years. This period expires on 30 September 2024. It would be prudent to begin initial work on future cockle fishery management in the near future. Officers are therefore intending to begin this at the end of this cockle season.

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.

Recommendations:

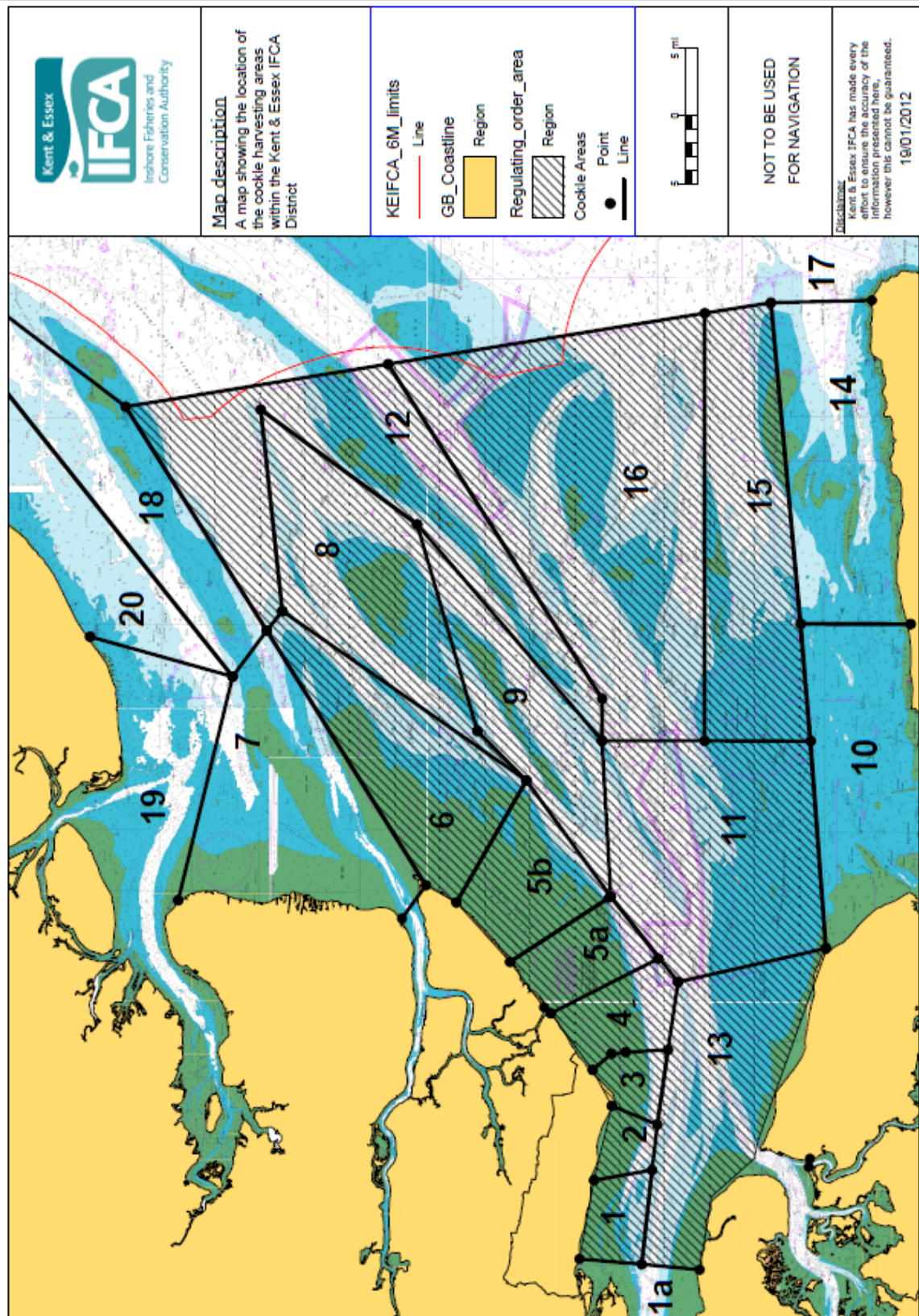
(k) That the number of licences should be restricted.

(l) 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.

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 previous years 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. The appropriate assessment for 2021 which was submitted to Natural England for advice and we are currently awaiting a response. A copy of this appropriate assessment can be provided on request.

Appendix A



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