

By: Assistant Chief IFCO

To: Kent and Essex Inshore Fisheries and Conservation
Authority – 25 May 2023

Subject: Cockle TECFO Licenced Fishery Management

Classification **Unrestricted**

Summary:

This report provides a summary of the spring 2023 cockle stock assessment surveys and outcomes of the annual cockle licence holder meeting. Resulting recommendations on the management of the 2023 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 2023 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 4620 tonnes and that information related to the stocks will be continually reviewed throughout the season to ensure future sustainability.
- (b)** Allocation of additional TAC 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 2 July 2023.

(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 1200 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.

2 July – 28 July (4 weeks)	2 specified landings per period
30 July – 25 August (5 weeks)	3 specified landings per period
27 August – 29 September (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 for at least the first four weeks of the fishery and will be opened subject to further survey work by KEIFCA.

(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:

(i) The licence fee will increase to £7,419

In respect of the issuing of additional Cockle Fishery Licences:

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

(k) 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. 2022 Cockle fishery

As previously reported, the cockle fishery within the area of the Thames Estuary Cockle Fishery Order (TECFO) opened between 26 June and 7 October 2022 with a total of 16 weeks fishing. During this period a total of 5390 tonnes were landed from within the TECFO area.

2. Spring 2023 Cockle Stock Surveys

2.1 Method

Stock surveys on the main harvesting areas of the Maplin and Foulness sands commenced on 2 April 2023 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.

2.2 Results

Analysis of the survey results show that there remains a stable number of cockles on the Maplin and Foulness Sands (fig. 1). The stock is currently comprised of mainly 2020 and 2021 year class cockles, which have shown above average survival over the past winter. Low levels of recruitment have been experienced over the past four years, and this is affecting the TAC which can be set for the fishery. It remains to be seen what the recruitment picture is for 2023.

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 sensible and pragmatic management over the past three years, during a period of relatively poor recruitment and low growth.

The graphs below show the latest stock situation.

Fig. 1: Abundance of cockles from 2003 to 2023 in the main cockle harvesting areas of the Maplin and Foulness sands.

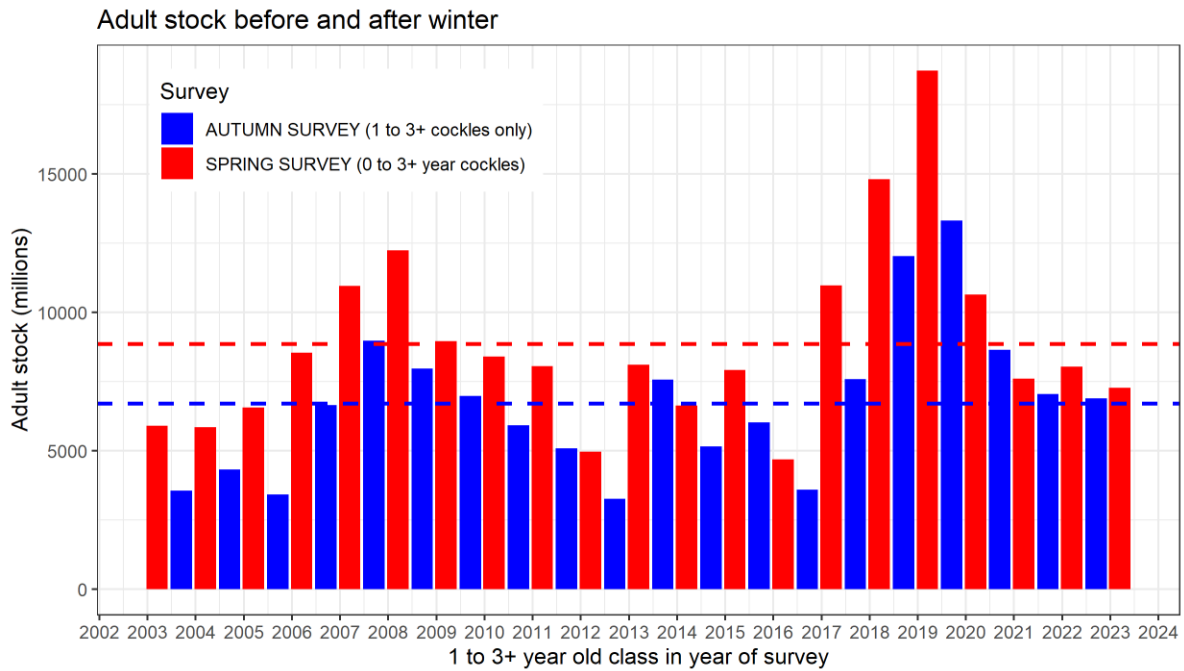
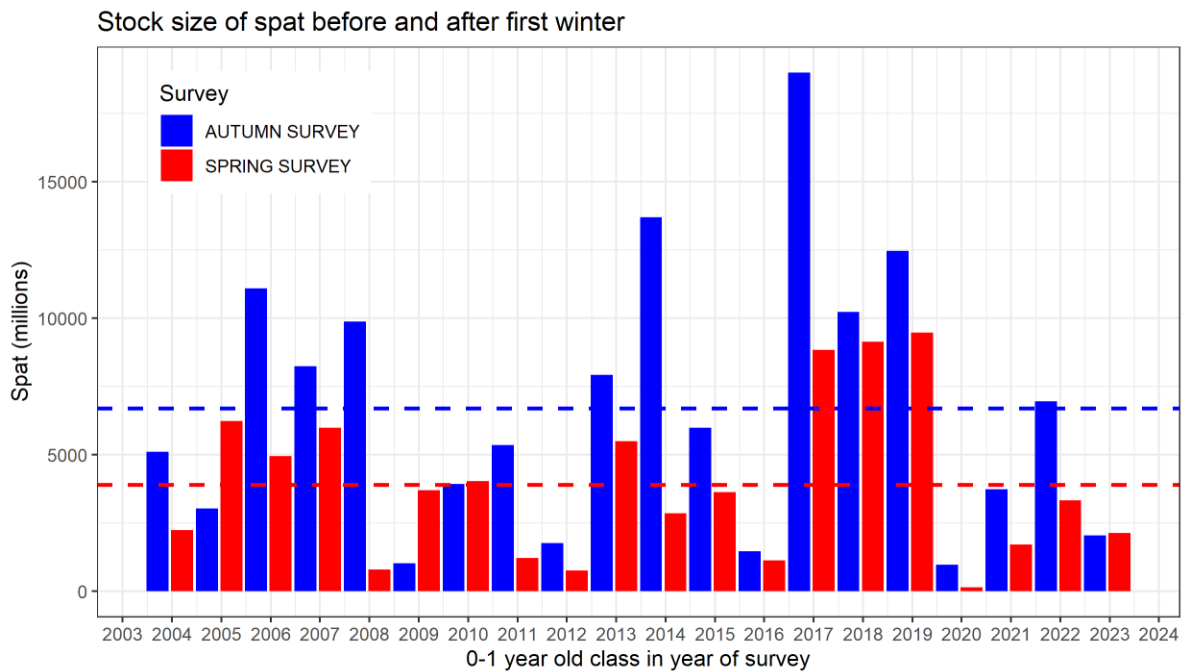


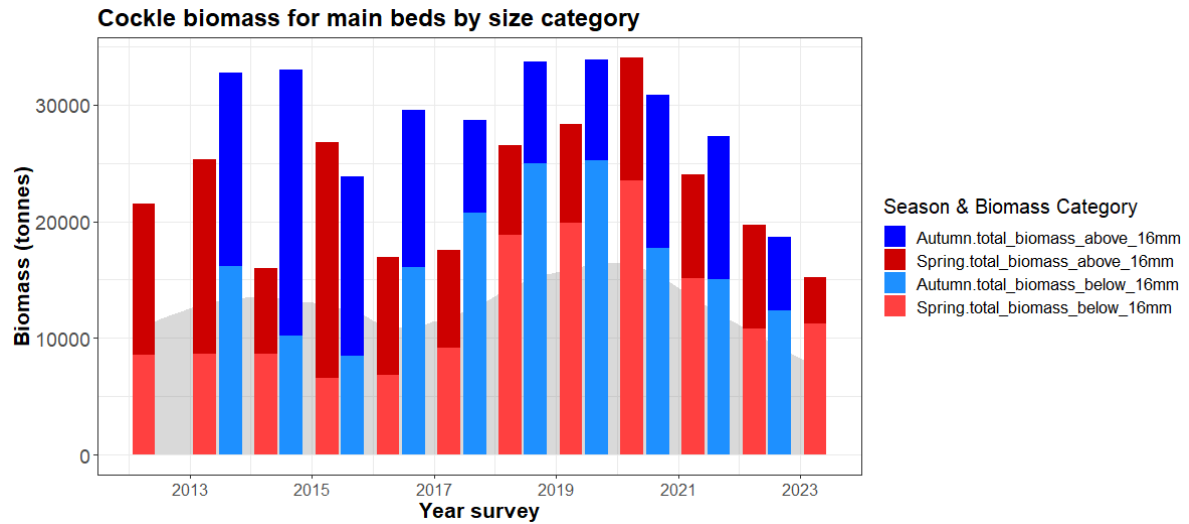
Fig. 2: Abundance of spat before and after the first winter from 2003 to 2023 in the main cockle harvesting areas of the Maplin and Foulness sands



Whilst stock levels are relatively good, the main factor restricting the TAC at present is the size of those cockles. During 2022, the growth of all of the cockles was extremely poor, thought to be a result of the extremely hot weather experienced throughout the summer. This has resulting in the biomass of the cockles being significantly reduced compared to recent years. In addition, the sizes of individual cockles are of note, only 29% of the adult stock was above the minimum landing size of 16mm when surveyed. As a result, giving the stock time to grow during the early summer prior to fishing commencing

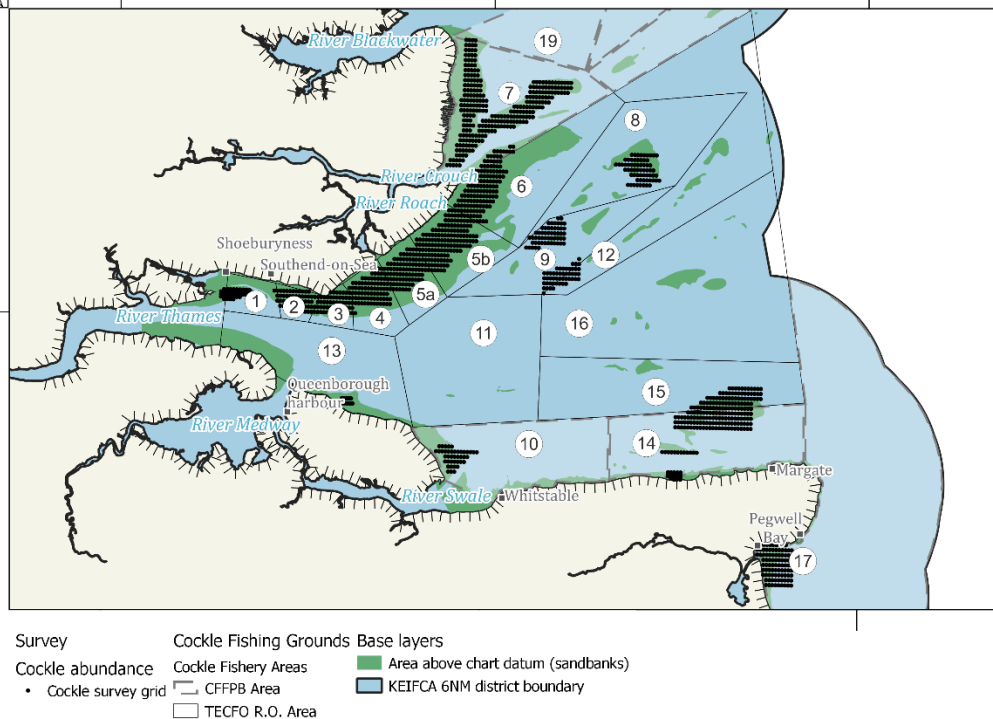
must be given serious consideration and whilst stocks of adult cockles are good, the low biomass and size of the cockles means a conservative approach must be taken in the setting of the 2023 TAC.

Fig. 3: Biomass of cockles, split into <16mm and >16mm MLS from 2012 to 2023 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. All of these areas have been considered when setting this years' TAC.

Fig. 4: Cockle sampling locations and beds surveyed for 2023.



Areas 8, 9 and 12, similar to last year, do not appear to contain the same numbers of cockles this year as they have in previous years. Area 8 in

particular has a good dataset which goes back several years. From a peak in 2019, when the area produced very good quantities of cockles, the stocks have reduced substantially and there are now very few cockles on this bed. 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.

Area 15 had not been fished since the early 1990s, but in 2020 the industry found significant stocks on the northern edge of the Margate Sands. The areas which were fished have now been surveyed multiple times each year since and whilst some cockles were located, there are only currently 2 trips of the fleet (154 tonnes) on the area once the 'rule-of-thirds' management is applied. However, the area seems to experience considerable growth each summer, with cockles growing markedly far more than in any other Thames bed. As a result, officers recommend that the area remain closed for the first four weeks of the fishery and then to resurvey Area 15 before calculating the number of trips which can be taken. This will maximise the yield from this bed, within the limitations imposed by setting a maximum one-third TAC.

2.3 Conclusion and TAC

Analysis of survey data indicates that the recommended Total Allowable Catch (TAC) that can be taken from the beds will be 4920 tonnes. This is a conservative figure taking into account the current stock levels across multiple beds as well as the poor growth experienced last year. Further survey work will be carried out on Area 15 to maximise the potential of this fast growing bed.

3. Cockle licence holders meeting

On 10 May a meeting was held with the cockle fishery licence holders. The management of the 2023 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 have more trips taken from it and the accuracy of the survey was questioned by some of the licence holders. 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 currently 2 trips of the fleet on that area, however officers explained that the area will be resurveyed in July/August and the number of potential trips on that bed recalculated. Officers have also invited licence holders to send a representative to join officers and assist with the additional survey work.

The licence holders did not agree with the increase in the licence fee and suggested that as costs have gone up everywhere and the number of trips is lower than last year, that the licence fee should remain the same as it was in 2022. Further information on licence fees is provided below.

4. 2023 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 4920 tonnes and that information related to the stocks will be continually reviewed throughout the season to ensure future sustainability.

(a) Allocation of additional TAC 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 **2 July 2023**.

(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.

2 July – 28 July (4 weeks)	2 specified landings per period
30 July – 25 August (5 weeks)	3 specified landings per period
27 August – 29 September (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 for at least the first four weeks of the fishery and will be opened subject to further survey work by KEIFCA.

(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.)

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

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

5. Licence Fees

The licence fee was discussed with licence holders at the licence holders meeting on 10 May, and they felt that as their costs for all other products and services had increased and the number of trips proposed for 2023 is down on 2022 that the licence fee should remain the same as it was in 2022 at £6,694.

However, the 2022 fishery cost the Authority £103,871 to run, which is £7,419 per licence, therefore it is recommended that the Minister's consent is sought to increase the licence fee to enable full cost recovery for the fishery and be set at £7419.

Recommendations:

- (i) That the licence fee be increased to £7419

6. Damage rates

In recent years, officers have noted some vessels having far higher damage rates than permitted, especially at the start of the season. This was particularly notable on Area 15 Margate Sands for the 2022 fishery. This has been reflected on by licence holders and officers have received communications from them asking for further monitoring of damage rates through the 2023 season.

Officers would like to see the industry taking more ownership of this particular issue and will be working with them in the setup for the fishery, to empower the industry to monitor their own damage rates and to develop a better understanding of how vessels can reduce their damage rates as much as possible.

This is particularly important as reducing damage to the stocks and grounds are a criterion of the proposed future regulating order which will manage the fishery from 2025.

7. Notification of landings

Since the start of the TECFO in 1994, vessels have been required to provide notification of landing to a answer machine based in the Essex office. It is becoming more difficult to run an answer machine which is accessible to officers both in Kent and Essex when they are out on the coast. In addition, despite advances in technology, mobile reception at sea is still patchy which has led to industry calls for a modernisation of the system. For the 2023 fishery, officers will be exploring alternatives to telephone notification including using individual WhatsApp messages from vessel skippers. Consideration is also being given to including licence holders in those conversations so that they are kept up to date with when their vessels are landing and they can ensure that notifications are being provided to the IFCA.

8. Consideration of Issuing Cockle Fishery Licences - Formal Procedure

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; eight 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. Stocks are lower this year than in 2020 and 2021, however the spatfall in 2021 should start to reverse the downward trend in adult stocks. This will be seen with more certainty prior to the 2023 fishery.

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

Recommendations:

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

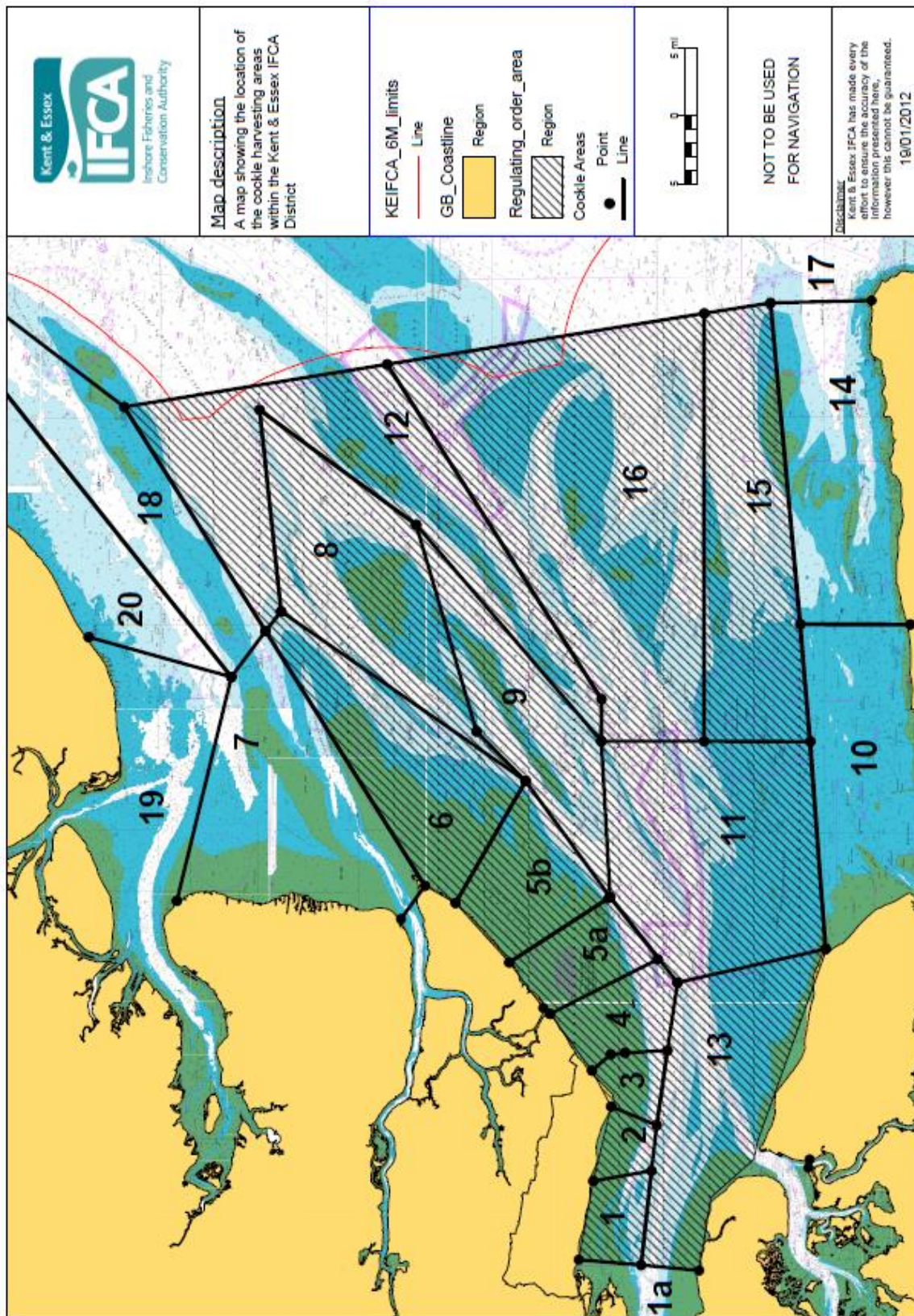
9. Fishing in Marine Protected Areas

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 2022 - 2024 was submitted to Natural England for advice prior to the 2022 fishery and received a positive response from Natural England. This appropriate assessment is still valid as no substantive changes have been made to the management of the fishery.

Appendix A



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