

The Wash Mussel Re-laying Fishery 2023

Informal Consultation February 2023: Outcome



This document presents the outcome to the informal consultation on the proposed mussel re-laying fishery 2023 which ran from 23 March 2023 to 6 April 2023.

We asked

Eastern IFCA’s annual intertidal mussel surveys conducted in autumn 2022 concluded that it would be possible to open a mussel re-laying fishery on certain beds in The Wash.

We sought the views of stakeholders on whether they were in favour of opening a mussel re-laying fishery and consulted on our proposed management measures.

You said and our response

9 responses to the consultation were received from stakeholders representing 28 of the 61 ‘Entitlement holders’ in the fishery. The response rate is low but reflects the low uptake of the fishery generally (only 2 to 3 vessels have operated in the fishery in recent years). Additional fishermen have however indicated that they intend to participate this year.

The key concern for most was how taking the full proposed Total Allowable Catch (TAC) would impact the TAC in the cockle fishery as a result the ‘Bird Food Availability Model’ (BFAM) which requires a minimum biomass of cockles and mussels in The Wash. Several additional management measures were also suggested.

The key change to the management measures for the fishery is the reduction in the Total TAC from 1,147 tones to 500 tonnes (400 dredged, 100 handwork).

A summary of what was said and our response is provided in the table below:

You Said	Our response
On the proposed TAC:	
<p>The TAC is too high and removal may inhibit a re-laying mussel and cockle fishery next year.</p> <p><i>Around half of the respondents suggested a reduction, with the other half indicating they were in favour with the TAC as proposed. However, the potential implications on next year’s stock were not overtly referred to in the information provided by Eastern IFCA. Most (4 out of 7) of those who intend to fish indicated they were in</i></p>	<p><i>The high rates of mussel mortality have made it hard to predict the size of mussel stocks from one year to the next. Stocks were relatively high when surveyed in 2022, resulting in a relatively high TAC for this year’s fishery. It is likely that the removal of the full TAC (in addition to natural mortalities) will reduce the stock by a greater amount than can recover in a single year and a large fishery this year is likely to reduce the size of next year’s mussel re-laying fishery.</i></p> <p><i>Juvenile mussel also contributes to the overall biomass of cockle and mussel in the Bird Food Availability Model. Therefore removal of such this year increases the risk to the 2024 cockle fishery.</i></p>

<p><i>favour of the proposed TAC but provided no rationale as to why.</i></p>	<p><i>However, mussels are suffering from mortality at ages 2-3 (i.e. the age of mussels available to the re-laying fishery) and so there a risk that mussels not taken this year would die as a result in any case.</i></p> <p><i>A Cefas study identified a haplosporidian parasite within mussels which appear to be impacting spawning but does not explain the high mortalities seen in 2-3 year old mussels. While a disease has not been ruled out, environmental factors do appear to have an impact on mussel mortality, with lower beds having positive impacts on survivability. In a seed relaying fishery, much of the stock stays in the system and contributes to future fisheries in the area by spawning when re-laid. However, in recent years, a significant proportion of that which has been taken was re-laid outside of The Wash, where it has contributed to the Wash sustainability in this way.</i></p> <p><i>It is also noteworthy that in previous years, some lay holders have suggested that the TAC is too low for them to participate in the mussel fishery and stock lays in The Wash, which tends to lead to the majority of seed leaving The Wash and reducing the TAC will lend itself to this further. In addition, recuing the TAC will also reduce the number of fishermen who can enter the fishery and / or the benefit to them. Seven respondents indicated that they intend to operate within the fishery this year, reducing the TAC to 500 tonnes would provide circa 70 tonnes per participant if equally shared – this is roughly enough to stock 1 hectare of a lay per participant.</i></p> <p><i>On balance, it is felt that the TAC should be reduced to 500 tonnes in total, with the potential to review this during the season. This will protect stock for a mussel re-laying fishery next year and enable some to contribute to the Bird Food Model.</i></p>
<p><i>The hand-working proportion of the TAC should be increased.</i></p>	<p><i>The TAC is allocated in accordance with an established policy with circa 10% of the total TAC allocated to hand-working and the resultant proposal was for a hand-work TAC of 104 tonnes.</i></p> <p><i>It is proposed tha the total TAC is reduced, but that the hand-work TAC proportion is higher than normal given that there is greater interest in the hand-work fishery compared to previous years, to maintain it at the levels originally proposed.</i></p>

	<p><i>However, fishing activity and TAC uptake will be monitored, and re-allocation of the TAC may be considered if the hand-work fishery uptake is more than expected.</i></p>
<p>Stocks should be encouraged to grow before they are too heavily fished - this risks negatively impacting future years.</p>	<p><i>The mussel stocks in The Wash have been suffering from unusually high mortality since circa 2010 which predominantly effects young (2-3 year-old) mussels. These die-offs have significantly reduced the number of mussels attaining minimum landing size and recruiting to the 'harvestable fishery'. While relaying seed fisheries reduce the number of young mussels that will recruit to the harvestable fishery, by targeting mussels before they reach a vulnerable size, the seed fishery provides some benefit to the fishery from mussels considered to be at risk.</i></p>
<p>Old mussels should be removed to reduce the chances of mussel disease spreading, and to increase the likelihood of spat settlement and recruitment.</p>	<p><i>Eradicating diseases (and invasive species) in the marine environment is almost impossible. If mussel mortality is being caused by a disease, it is unlikely that removal of old mussels will be an effective means of managing the disease. Similar measures have been employed unsuccessfully elsewhere in attempts to eradicate diseases in farmed oysters.</i></p> <p><i>While annual mortalities are high, only a proportion of the stock die each year. Their removal would, therefore, also remove higher numbers of healthy, potentially resistant mussels. Anecdotally, juvenile mussels removed from this fishery and re-laid onto lays or other private fisheries appear to survive and have good growth rates. It is therefore likely that there are environmental factors which contribute to mussel mortality. Re-laying of juvenile mussel onto more productive grounds (i.e. lays and other private fisheries) could increase their growth rates and survivability. However, this only provides benefit if they are not immediately harvested after relaying.</i></p> <p><i>While lays are cleared of mud prior to relaying new seed, this is different to clearing ground to allow recruitment of natural seed. Fishermen relay seed onto the lays, not wait for natural settlement to occur. Within the regulated fishery, the majority of mussel settlement is either within existing mussel beds or occasionally in gullies where cockles have ridged out.</i></p>
<p>The TAC is too high which may impact negatively on the cockle TAC as a result of the BFM this year.</p>	<p><i>We have undertaken an assessment of available bird food resource in The Wash (i.e. the Bird Food Model) which has concluded that removal of the full mussel re-laying TAC will not impact the 2023 cockle fishery TAC because there is sufficient stock available to</i></p>

	<p><i>support both fisheries. It is difficult to determine, however, whether a full-sized mussel fishery this year would impact on next year's cockle fishery. This has led to the reduction in the TAC (to less than half the original proposal).</i></p>
<p>Limitations on vessel and dredge sizes should be removed.</p>	<p><i>The vessel size limit (14m) and dredge size limit (inside opening 1m) are well established management measures in the Wash, which were reviewed in 2018 and 2021/22 (when being considered as measures within the Wash Cockle and mussel Byelaw). In both cases, they contribute to ensuring fishing activity is at sustainable levels and are not being reconsidered at this time.</i></p>
<p><i>On the proposed beds:</i></p>	
<p>Beds in or close to areas that were closed for cockles should not be opened to dredging, as dredging could damage the cockle stocks.</p> <p><i>For example, it has been suggested that the Skate Run mussel bed should only be opened to the hand worked fishery this year because of its proximity to high density cockle stocks.</i></p>	<p><i>Several of the mussel beds proposed to be opened to the relaying fishery are either within or close to areas that were closed to the cockle fishery last year. However, it is noteworthy that such closures are often defined by simple shapes to ease compliance (e.g. squares) and so may include areas where cockles were not present.</i></p> <p><i>The density of this years cockle stock has been compared against the mussel beds to be open to the relaying fishery. Some of the 'open areas' include patches of high-density cockles, but not within the mussel beds themselves (i.e. they exist between mussel beds).</i></p> <p><i>Whilst there is a risk that, when dredging, the mussel bed is missed and an area of cockle disturbed instead, this is considered of low risk given the likely small scale of the fishery. As we understand it, fishermen will undertake test tows of an area to find the mussel bed before commencing a full dredge tow, and will not be able to land any cockles in any case, instead returning them to the sea.</i></p> <p><i>On balance, the risk associated with mussel dredging activity to high density cockle beds is considered limited and we are not seeking to change open areas at this time.</i></p>
<p>Mare Tail should be opened as the mussels there are in gullies which will</p>	<p><i>The Mare Tail bed is not proposed as open to the mussel relaying fishery because it</i></p>

<p>inhibit their growth and make them unmarketable in the future.</p>	<p><i>does not contain predominantly juvenile mussels. This is intended to minimise disturbance to adult mussel, noting that the stocks of such do not meet conservation objectives.</i></p>
<p>Trial bank should be hand worked only, as hand working after dredging is difficult.</p>	<p><i>Each bed has a limit on the amount of mussel which can be taken to ensure their mean mussel density remains above 25 tonnes / ha. Therefore, it is not considered likely that dredging activity will reduce density to the extent that hand-working activity will be significantly impacted.</i></p>
<p><i>On opening times:</i></p>	
<p>The fishery should not open until June: Mussels rarely rise out of the ground until later in the year. Later fishing limits damage to the mussels and to the environment.</p>	<p><i>Mussel re-laying fisheries typically open in Spring as water temperatures start to increase and mussels can be removed from the bed more easily.</i></p> <p><i>Several of the mussel beds proposed to be opened were inspected in April during the cockle surveys. At that time the mussels had started to lift and loosen. It was assessed that these beds would be suitable for fishing from May onwards.</i></p> <p><i>Restrictions of fishing gears and vessel sizes are considered sufficient to mitigate the damage to the environment, particularly given the low uptake in this fishery ordinarily. Activity levels and damage to the environment will be monitored a necessary and additional mitigation put into place as needed to protect stocks and the environment.</i></p>
<p>The fishery should be limited to 4 days a week, at least for dredging.</p>	<p><i>Within the cockle fishery, there has historically been a preference to limit the tides the fishery is open. The intention is, in part, to ensure that the industry have sufficient breaks during the fishery.</i></p> <p><i>The uptake in the mussel relaying fishery is very low compared to the cockle fishery, and the TAC has not been exhausted in the last four fisheries. As such, there is significantly less competition amongst industry and less need to manage open periods.</i></p>

	<i>By not setting operating times for this fishery, fishermen can choose which times are best to operate in the fishery.</i>
<i>Other comments/general comments on management measures:</i>	
<i>Tidal restrictions</i>	
The fishery should be restricted to 6 metre tides and above.	<i>Limiting operating times to preferred tides is not considered necessary given the low uptake of the fishery. Fishers will be able to work the beds during the tides they believe are the most appropriate.</i>
The decision should be made by the full Authority rather than delegated to the CEO so that members can consider the views from the consultation.	<p><i>All of the views provided by the consultation have been carefully considered alongside our duties.</i></p> <p><i>The Authority considered the outcomes of the mussel survey at the 51st Authority meeting and delegated authority to the CEO in consultation with the Chair and Vice-Chair to decide on opening the fishery following the consultation.</i></p> <p><i>The proposed management measures align with the Fisheries Management Policy¹ which has been in effect since 2008 having previously been agreed by the Authority. The responses to this consultation are considered in the context of the agreed policy and our general duties as a local authority.</i></p> <p><i>Delegated authority to the CEO enables a flexible management approach which best suits the dynamic nature of the mussel fishery in The Wash. There is significant process involved to ensure due diligence including consultation with the Chair and Vice-Chair. As such, the CEO is operating in accordance with the powers which the Authority agreed.</i></p>

Outcomes

Most of the comments received suggested additional management measures to reduce perceived risks to the fishery. Typically, uptake in the fishery is very low, and

¹ https://www.eastern-ifca.gov.uk/wp-content/uploads/2016/03/WFO_Shellfish_management_policies_2008.pdf

as such only minimal restrictions are considered necessary to protect the stocks, environment and interests of the fishing industry. This is intended to provide the industry with the maximum opportunity and limit potential impacts as a result of introducing restrictions. Careful consideration was given to the proposed Total Allowable Catch, and it is decided that the TAC should be reduced to potentially enable a small re-laying fishery next year. However, the fishery will be monitored carefully, and additional mitigation considered where there is a need.

Thank you for your engagement with this work. You can find out more about future consultation work for other ongoing management work in our district, on our website: www.eastern-ifca.gov.uk