

## Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



## Action Item 12

### 34<sup>th</sup> Eastern Inshore Fisheries and Conservation Authority meeting

7<sup>th</sup> November 2018

**Report by:** Julian Gregory (CEO) / Luke Godwin, Senior IFCA (Regulation)

### **Marine Protected Areas Byelaw 2018 and Shrimp Permit Byelaw 2018: results from formal consultation**

#### **Purpose of report**

To report on the responses to the formal consultation on the Shrimp Permit Byelaw 2018 and the Marine Protected Areas Byelaw 2018 and to propose amendments to the byelaws following the consultation.

#### **Recommendations**

Members are recommended to:

- **Note** the summary of consultation responses and Eastern IFCA's consideration of the objections raised at Appendix 1;
- **Agree** to make the changes to the byelaws as set out in Table 1;
- **Direct** Officers to re-consult on the Shrimp Permit Byelaw 2018 regarding the amendments related to provisions for inshore Vessel Monitoring Systems;
- **Direct** the CEO to submit the Marine Protected Areas Byelaw 2018 as set out in Appendix 7 for confirmation by the Minister;
- **Agree** to delegate authority to the CEO, following 're-consultation' on the matters set out above, to make changes to the byelaw that do not alter the intent of the management measures and to submit to the Minister for approval.

#### **Background**

At the 33<sup>rd</sup> Eastern IFCA Meeting (18<sup>th</sup> July 2018) members agreed to make the Shrimp Permit Byelaw 2018 and the Marine Protected Areas Byelaw 2018 and directed Officers to undertake a formal consultation.

## **Report**

Officers undertook a formal consultation which ended on the 3<sup>rd</sup> September 2018. A total of 38 written responses were received including from individuals, fisher associations and conservation groups. It should be noted that 15 of these responses received were the same response signed by different persons associated with a single association. The Marine Management Organisation's policy team also provided informal feedback and further legal advice was sought from Andrew Jackson Solicitors LLP.

A summary of the feedback and proposed changes to the Byelaws are set out below.

### Summary of feedback

Concerns and objections were raised by a range of stakeholders including those with a conservation interest and those with a fishing interest.

In general, fishers were most concerned by the administration of permit conditions and how this will impact their business model. There still appears to be a significant dichotomy of strong opinion in this regard but Eastern IFCA is not proposing to implement any limitation on permits at this time. Rather, this will be taken into consideration through a dedicated consultation. Other key objections included the closed areas on the North Norfolk Coast, the model for issuing permits (with regards to who 'owns' the permit), the requirement to have veil nets on all vessels, the impacts of potentially closing the fishery mid-season and the enforcement and costs of I-VMS.

Conservation interests were represented by far fewer responses (two in total) and one such response was particularly critical of the proposed measures as not having enough of a protective effect.

A detailed consideration of the objections and concerns raised is set out in Appendix 1 which includes a recommended response for each 'theme' of objection. In the case of ten such objections, officers recommend an action which is appropriate to resolve the objection. In the majority of cases, the objection is in relation to elements of the byelaw which are already sufficiently justified.

In addition, officers recommend some actions to resolve feedback received from the MMO and our legal advisor. Proposed actions resultant of the consultation and further consideration are considered in table 1 below.

Table 1 Actions proposed as a result of consultation and further consideration

<b>Action required</b>	<b>Rationale for amendment</b>
<p>Various wording changes in relation to the byelaws, permit conditions and impact assessments.</p>	<p>The MMO policy team provided feedback on the wording of the byelaws, permit conditions and eligibility criteria taking into account legislative and policy drivers and current trends in the wording of byelaws (including ensuring transparency). Various amendments were proposed, none of which had the effect of altering the intended effect of the byelaws.</p> <p>Such changes included, for example, the formatting of coordinates set out in the Marine protected Areas Byelaw and additions and amendments to the definitions section of the Shrimp Permit Byelaw.</p> <p>Officers have considered the recommendations from the MMO and recommend accepting the majority of recommendations. All such changes were within the scope of the delegated powers granted to the CEO at the previous Eastern IFCA meeting (33<sup>rd</sup> Eastern IFCA meeting) and as such are not considered further.</p> <p>In addition, the impact assessments have been updated to reflect advice received. One notable change is that in relation to the cost to the Authority which have reduced because 'enforcement costs' i.e. costs related to incidents of non-compliance, cannot be included (as had been the case previously). With regards to enforcement, only additional compliance costs can be taken into account (e.g. additional patrols).</p>
<p>Removal of the eligibility criteria (i.e. the provision relating to relevant offences)</p>	<p>An objection was received to the effect that this provision was too harsh. In particular, there was a concern that, given that the criteria sets out that the person is not eligible rather than the Authority having discretion as to whether to make a person ineligible for a permit, that two relatively minor offences could preclude</p>

someone from fishing for up to three years.

Further legal advice was received after the byelaw was made specifically in relation to the proposed eligibility criteria. The criteria originally proposed sets out that persons who have been convicted of, or received a Financial Administrative Penalty for, shrimp fishing related offences on more than two occasions within a three-year period were not eligible for a further permit.

The advice received is to the effect that the eligibility criteria as proposed were not in keeping with the Rehabilitation of Offenders Act 1974 (as amended) because spent convictions (i.e. those more than 12 months old) cannot be used to prejudice a person's employment. Therefore, counting a conviction against an applicant over the three-year period as proposed would not be legal and furthermore, applicants would not be required to declare it.

Reducing the period that convictions and FAPs can be taken into account makes this provision less effective. To require two convictions or FAPs within a 12-month period makes the provision less effective because of the low likelihood of prosecuting the same fisher twice in 12 months. Reducing the number of convictions to just one over the 12 months' time period is not, at this time, considered proportionate. The Marine and Coastal Access Act 2009 has provision for a court to make a person ineligible for future permits as a sanction for an offence. This is however limited in its scope to Eastern IFCA permit byelaws. Part of the role of the Eligibility criteria was to enable other relevant offences to be taken into account, for example obstruction, when issuing permits.

On balance, whilst the proposed criteria had the benefit of taking into account additional offences, the legal advice received reduces the efficacy of the measure

	<p>and it is therefore recommended that it is removed but may be considered further going forward.</p>
<p>To amend the wording of the requirement for vessels to have I-VMS from:</p> <ul style="list-style-type: none"> <li>• when engaged in shrimp fishing;</li> </ul> <p>to:</p> <ul style="list-style-type: none"> <li>• at all times the vessel is within the district if the vessel is named on a shrimp permit.</li> </ul>	<p>The original provision which requires the use of I-VMS under the byelaw was drafted taking into account permit conditions which, at the time, were proposed by Devon and Severn IFCA. These were the first draft of such provisions in relation to I-VMS and were proposed subsequent to national dialogue between IFCAs and the MMO.</p> <p>Paragraph 5 of the byelaw originally proposed sets out the following: <i>A person must not fish for shrimp without a fully functioning, remotely accessed electronic reporting device on board the vessel...</i></p> <p>The effect of this provision would be that a person could not fish for shrimp without using I-VMS but could transit the district or fish for other species without I-VMS. Whilst the wording of this provision was in keeping with the intention of the nationally agreed model, officers have subsequently identified that the wording leaves significant room for exploitation and reduces the effectiveness of the measure. For example, a legitimate defence to not having a functional device (in the case of a device malfunction for example) could be that the vessel is simply transiting the area. For the requirement to be effective, the provision needs to apply at all times as, in theory, the vessel is capable of fishing for shrimp at any time.</p> <p>It is proposed therefore that the provision is reworded as follows: <i>A person must not use a vessel which is named on a shrimp permit without a fully functioning, remotely accessed electronic reporting device on board the vessel...</i></p> <p>This would have the effect of requiring a vessel to have I-VMS on at all times regardless of the activity.</p>

	<p>Reporting costs for the fishers will not increase as a result of this measure as the contracts offered by suppliers relate to three-minute reporting at all times. There is however likely to be an additional burden on fishers who would not be able to fish at all (i.e. for any species) from a vessel named on a shrimp permit if a device has malfunctioned. It should be noted however that two instances of non-reporting devices are known to have occurred in the Devon and Severn IFCA district and in both cases, I-VMS devices were operational within hours of malfunction.</p>
<p>Removal of closed areas 32 and 33 (inshore North Norfolk Coast and 'seasonal corridor' areas respectively)</p>	<p>Several objections were raised in relation to the closures 32 and 33 on the basis that neither contain habitats or sub-features which are deemed as sensitive to shrimp fishing activity within the Habitat Regulation Assessment.</p> <p>The HRA identified that subtidal mixed sediments and subtidal mud were the most sensitive habitats in the site, particularly where they occurred at depths greater than 10m below chart datum. For intertidal sand, the HRA found that impacts could not be ruled out, so a precautionary high mitigation score was given for this habitat. More evidence was available for The Wash embayment than for the Norfolk Coast. The HRA identified that appropriate mitigation for intertidal sand is to control the level of shrimp trawling over this feature, rather than to close it to shrimp fishing.</p> <p>Habitat data (Natural England data release) shows that the inshore closures on the Norfolk Coast predominantly contain intertidal sand (closure 32) and a mix of subtidal sand, mixed sediment and mud at depths less than 10m below chart datum (closure 33). These areas had been proposed for closure as a continuum from closure 31 (North Norfolk coast offshore) and because these areas provide an important nursery ground for juvenile fish, which form part of the water column sub-feature and are a food source for harbour seals (a designated feature of the site). However, closures</p>

	<p>32 and 33 had not been identified as being <i>necessary</i> to avoid adverse effects on site integrity, since the HRA had assessed that the shrimp fishery does not cause an adverse effect on site integrity through the removal of juvenile fish.</p> <p>Therefore, since closures 32 and 33 had not been identified as being necessary through the HRA, it is recommended that they are removed from the Marine Protected Areas Byelaw 2018. In recognition of likely wider ecological benefits of these closures, it is recommended that they should be further considered in future iterations of management of the shrimp fishery – including the consideration of sustainability measures for the shrimp fishery (planned to follow the current work for protection of designated habitats and species).</p> <p>No additional burdens or impacts on stakeholders are anticipated as a result of this amendment.</p> <p>Closure 32 was planned to subsume closures previously in place by the Marine Protected Areas Byelaw 2016. As closure 32 has been removed these closures need to be added to the byelaw to ensure that the same protective effect is achieved as in the Marine Protected Areas Byelaw 2016. The closures were previously named EH, SF, BP, BC and are now named 32, 33, 34 and 35.</p>
<p>Removal of the requirement for all shrimp fishing nets to have veil nets (i.e. separator trawls) or sorting grids.</p>	<p>Two objections were received (including one from an association) setting out that there was insufficient evidence to require veil nets within the HRA.</p> <p>Eastern IFCA proposed that all fishing boats would require a separator trawl or sorting grid through permit conditions. This is an extension of the requirement in place under the Shrimp Fishing Nets Order 2002 which requires shrimp beam trawls with an aggregate length of more than 8 meters to have such.</p>

	<p>The use of veil nets (separator trawls) is considered a responsible approach to minimise the impacts related to by-catch mortality of species which may be of importance to the site as a whole and as a commercial fishery resource. However, it could be argued that consideration of the use of veil nets through the HRA is not sufficient to evidence a need for this measure in relation to the sub-features, as assessed in the document. In particular, the assessment scopes out the need to further consider the ‘water-column’ feature further as impacts not considered to impact site integrity.</p> <p>It is therefore recommended that the requirement is removed for the purpose of the current iteration of the byelaw. It should be noted that the vast majority of the fishing fleet uses separator trawls by virtue of the Shrimp Fishing Nets Order 2002 and only two vessels are thought to be fishing with gear smaller than this. However, it is also proposed that the use of veil nets is considered further in relation to the development of fisheries sustainability measures within the shrimp fishery.</p>
<p>Implementation of a formal operating procedure in relation to the issuing, varying and revoking of flexible management measures (i.e. limitations on the number of permits and flexible permit conditions).</p>	<p>One objection was received related to Eastern IFCA not having a ‘formal operating procedure’ as required under paragraph 1 of Schedule 1 of the Shrimp Permit Byelaw.</p> <p>Eastern IFCA published a document which set out the process for the issuing, varying and revoking Regulatory notices under the Protected Areas Byelaw (May, 2014). This process is analogous to the process set out in the Shrimp Permit Byelaw. On further consideration however, the process as set out in this document requires updating to reflect its use for flexible management measures as opposed to Regulatory Notices.</p> <p>An updated procedure is recommended at Action Item 13 of this paper.</p>

	<p>Given that the procedure does not form part of the byelaw it is not considered subject to consultation and as such, no further action is required however, it is also proposed that Eastern IFCA publicises the procedure (if approved) after the meeting to provide clarity to fishers.</p>
<p>Update of the impact assessment to reflect the following:</p> <ul style="list-style-type: none"> <li>• additional benefits identified resultant of the proposed measures</li> <li>• Potential risk / cost associated with Eastern IFCA closing the shrimp fishery mid-season</li> <li>• Include acknowledgement of smaller scale fishers / fishers who may wish to enter the fishery or have not fished for many years</li> </ul>	<p>A crucial part of the formal consultation is to fill any gaps in the impact assessment which can be tested against a much wider audience than in the more targeted informal consultation stage. The comments received are reasonable and the impact assessment has been amended to take these comments into account.</p>

Proposed changes set out in Table 1 above are set out in the Appended Byelaws, Permit conditions and Impact Assessment for reference (Appendices 2 to 7).

#### Consideration of the need to re-consult on proposed changes

Defra guidance<sup>1</sup> requires that byelaws are consulted on 'formally' after having been made by the Authority and that objections are considered with a view to having them resolved prior to a byelaw being formally submitted to the Secretary of State. However, changes to a byelaw may require 're-consultation' on those changes if they fundamentally change the byelaw compared to what was consulted on.

Legal advice was received with regards to proposed amendments to the wording of the I-VMS requirement to the effect that the change would likely constitute a fundamental change. The rationale being that, the amendment places an additional burden on fishers who may be affected by, for example a malfunctioning device, to a greater extent than they would have before.

Other amendments set out in Table 1 are not considered fundamentally different to the extent that they would require re-consultation. Whilst it could be argued that amendments to the closed areas (i.e. removal of areas 32 and 33) is a substantive change, the effects of this do not place additional burdens or have additional impacts on stakeholders likely to be affected (i.e. fishers) and are therefore not fundamental. Finally, the removal of the eligibility criteria could be considered as a substantive change however removing them means that there is less impact on fishers. As such, it is recommended that this amendment would not require re-consultation.

With regards to the shape of the re-consultation, legal advice received from Andrew Jackson Solicitors LLP recommended re-issuing adverts in the Fishing News (as per the Defra guidance) whereas MMO policy suggested that it could be justified that such was not needed if publicised on the website and if stakeholders were written to. It is recommended that the advice of Andrew Jackson is followed, and an advert is placed in Fishing News so as to ensure no risk remains having made the proposed changes. It is further recommended that stakeholders will also be written to and the re-consultation will also be publicised on the Eastern IFCA website in any case.

#### Consultation period during formal consultation

Defra guidance also sets out a framework for undertaking formal consultation. This includes that two consecutive advertisements should be publicised in a

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<sup>1</sup> IFCA Byelaw Guidance, March 2011: Defra - <https://www.gov.uk/government/publications/ifca-byelaw-guidance>

newspaper and that objections should be raised '*not later than 28 days after the date of the newspaper in which the last advertisement appears*'.

Officers have identified that the publicised deadline for consultation responses was inadvertently too short, consisting of 26 days, rather than 28.

Legal advice and advice from the MMO policy team has been obtained to the effect that there is only a low risk with regards to having consulted for too short a period. The factors taken into consideration were;

- That Defra guidance is not mandatory and that the Marine and Coastal Access Act 2009 does not mandate a time period for consultation;
- That 26 days is a reasonable period for a consultation in any case;
- That objections were received and taken into account after the deadline;
- That the IFCA consulted extensively with the stakeholders likely to be affected by the measures prior to the consultation.

Therefore, it is recommended that the byelaws in their entirety do not require a full 're-consultation' as a consequence of the error.

### **Legal implications**

There are legal risks inherent in making byelaws and these are mitigated by undertaking due process. A byelaw may be subject to a public inquiry (including as directed by the Secretary of State before confirmation) or to judicial review.

Officers have throughout the process of developing the byelaws, sought to ensure due process so as to mitigate risks of successful legal challenge.

The risk associated with making changes to the Shrimp Permit Byelaw 2018 is to be mitigated by undertaking an additional consultation. Legal and policy advice has been sought with regards to the inadvertently short consultation period to the effect that legal risk is very low.

### **Financial implications**

There will be an additional cost of circa £1600 for the re-consultation of the changes to the Shrimp Permit Byelaw 2018 as a result of requiring two additional Fishing News adverts. Some additional Officer time will also be required to undertake such. This is not considered significant in the context of ensuring that the byelaw does not become ultra vires as a result of failure to adhere to due process.

### **Background papers**

- Action Item 14: Marine Protected Areas Fishery Management Measures, 33<sup>rd</sup> Eastern IFCA Meeting

## **Appendices**

1. Summary of responses to formal consultation
2. Shrimp Permit Byelaw 2018 as amended
3. Shrimp Permit Byelaw 2018: Category One Permit Conditions as amended
4. Shrimp Permit Byelaw 2018: Category Two Permit Conditions as amended
5. Shrimp Permit Byelaw 2018: Impact Assessment as amended
6. Marine protected Areas Byelaw 2018 as amended
7. Marine protected Areas Byelaw 2018: Impact Assessment

## Appendix 1

### Formal consultation – Summary of responses

Themes	Comments
<i>Impacts on different business models</i>	
<p>Current proposals have no limit on the number of permits – this will potentially result in the fishery closing mid-season which would result in closure of processor factories with wider impacts (e.g. delivery drivers, clerical staff, factory workers etc.) which are not fully explored in the impact assessment.</p>	<p>As a recognition of the complexity of administering a permit scheme for shrimp fishing (as highlighted in informal dialogue and in comments set out below), Eastern IFCA intends to develop a model for issuing permits in slower time and as informed by a dedicated consultation. However, given the risk to the marine protected area as detailed in the HRA, protective measures are required.</p> <p>Implementation of the byelaw in its current form provides a mechanism to implement a permit scheme as appropriate. It also provides a simple ‘backstop’ to enable Eastern IFCA to ensure that the site is not significantly impacted by shrimp fishing whilst developing a process for administering permits, as required under the Habitats Directive (92/43/EEC) and The Conservation of Habitats and Species Regulations 2017 (2017/1012). This provision enables Eastern IFCA to close the fishery if there is an enhanced risk to site integrity. In this case, that is likely to be determined as fishing effort at levels in excess of what has been the case over the last ten years.</p> <p>The impact of having to close the fishery ‘mid-season’ is acknowledged in the impact assessment however monetised costs were not estimated because current levels of fishing activity are not thought to be having an impact on the site (i.e. impacts are hypothetical). In addition, the timing of the ‘permit year’ (i.e. August to August) reduces the likelihood of such closures by ‘restarting the clock’ at the point effort usually starts to increase.</p> <p>However, the potential scale of impact on the industry can be estimated as follows:</p>

Table 1. impact as a percentage of total landed weight of shrimp depending on timing of fishery closure (MMO data 2010 to 2017 inclusive)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All vessels	20.9	17.2	13.0	8.7	5.4	2.9	0.0	93.0	78.5	58.7	39.7	29.1
Vessels landing shrimp 10 or more months of the year	22.0	18.5	14.5	9.8	5.9	3.2	0.0	92.8	77.6	57.8	39.2	29.6

Table 2. impact as a percentage of total value of catch depending on timing of fishery closure (MMO data 2010 to 2017 inclusive)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All vessels	24.1	20.0	14.9	10.0	6.1	3.0	0.0	93.2	79.7	61.6	43.1	32.1
Vessels landing shrimp 10 or more months of the year	25.0	21.2	16.5	11.2	6.8	3.4	0.0	93.0	78.5	60.1	42.0	32.2

Tables 1 and 2 show the percentage of landed weight (table 1) and value of catch (table 2) cumulatively over the 'permit period' i.e. August to August. It shows the percentage of catch / value remaining during a normal 'permit year' and as such is an estimate of the scale of impact on fishers. For example, if the fishery closed during January, vessels would lose in the region of 24 to 25% of their total earnings from shrimp during that year.

While this provides some insight into the potential impact on an individual fisher, it is worth noting that if the fishery were to close early, given that the amount of effort which can be permitted is that which has taken place over the last 10 years, the industry wide impacts would be limited as the same amount of shrimp will have been caught but over a shorter period.

Impacts resultant from 'mid-season' closures will be primarily on vessels / fishers who would have relied on the shrimp fishery during the months it is closed. The level of impact on such fishers cannot be determined with the available data as cockle landings (which will make up a

significant proportion of annual value of catch for many vessels) are not accurately recorded in sales notes and as such, not accurately reported in landing statistics making a comparison difficult.

The greatest impact would be felt by vessels whom do not have a Wash Fishery Order Licence or other target species. Impacts are however mitigated by the ability to fish outside of the Wash and North Norfolk Coast (e.g. the Lincolnshire coast which is anecdotally known to support a significant proportion of the effort from the larger, processor owned vessels).

Finally, there will also be a wider impact on loss of earnings from processor factories which rely heavily or solely on the processing of shrimps for certain periods of the year. These cannot be monetised with the available data however, it can be assumed that for the individuals who work for these factories the impacts will be significant loss of earnings.

The likelihood of this occurring depends on the likelihood of 'new' vessels entering the fishery. Eastern IFCA has actively discouraged any 'new' vessels fishing for shrimp solely for the purpose of obtaining track-record if / when a permitting scheme is introduced. There is however the potential for new vessels to enter the fishery for this reason and this is acknowledged in the impact assessment.

Ultimately, if the status quo is maintained then a 'mid-season' closure is unlikely to occur. Balancing the various needs of different business models will be difficult and it should be noted that (as set out below) there is a counter view that limiting the number of permits will also have a detrimental impact and may lead to the loss of fishing opportunity (e.g. through latent capacity, inability of new entrants etc.) and it is considered important to establish the best method for achieving the required effect with further consultation. Eastern IFCA will seek to engage with the industry and develop proposals for the administration of permits within a reasonable timeframe so as to minimise any potential impact in any case.

**Recommendation:** To acknowledge the potential impact in the Impact Assessment in more detail (as set out above) but not to change approach. The potential risk to businesses as a result of closing the fishery is low given that the current understanding is that maintaining effort (outside of most sensitive habitats) at recent levels will not impact the site.

<p>Full-time shrimp fishers should be prioritised, and byelaw should enable year-round fishing for certain vessels with such track-record. Non-regular / part-time shrimp should be stopped from fishing before ‘full-time’ shrimp fishers.</p>	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it.</p> <p>It should be noted however that it is unlikely to be considered reasonable to provide preferential conditions to certain business models. As set out below, the scale of impact on smaller business models which do not rely on shrimps all year (i.e. fish across several different fisheries) will be as great as for those who rely on shrimps all year. Business models for which shrimps form a significant part are still at risk, especially smaller business models with less capital and thus resilience to loss of earnings.</p> <p><b>Recommendation:</b> Consider as part of planned consultation on the administration of permits.</p>
<p>Small scale shrimp fishers have not been part of informal consultation / development of measures because of they do not provide ‘sales notes’ i.e. are not part of the MMO landings data set. Informal consultation focussed on vessel from King’s Lynn and Boston. Potentially 12 vessels in addition to those from The Wash.</p>	<p>The informal consultation focussed on vessels identified as having landed shrimp in the period 2010 to 2017. These are primarily from King’s Lynn and Boston. Responses received indicate that smaller amounts of shrimp have been landed by other fishers including from the North Norfolk Coast for which no or limited sales notes were supplied to the MMO and as such these do not appear on landings data or are from before 2010 (i.e. when the dataset starts).</p> <p>In addition, it is noted that some fishers from the North Norfolk Coast and Suffolk catch small amounts of shrimp to use as bait for long-lining. Additional information will be required to take these into account although it is anticipated that these impacts are likely to be relatively smaller in scale compared to those of fisher whom rely on shrimp to a greater degree.</p> <p>Depending on the level of fishing activity and the location, there may be no impacts on individuals outlined above except for in relation to obtaining a permit and iVMS (or VMS+). Smaller vessels may be impacted to a greater degree if fishing occurs within a proposed closed area (MPA Byelaw) by a vessel unable to fish elsewhere.</p> <p><b>Recommendation:</b> Acknowledge potential additional fishers of smaller scale in the impact</p>

	assessment.
Measures penalise 'small scale fishers' and are only beneficial to larger business models. Cost of measures (iVMS and permits) disproportionately impacts smaller business models.	<p>Eastern IFCA has, through the informal consultation and through the formal consultation ensured that all business models which rely on shrimp have been taken into account. Eastern IFCA has aimed to develop measures which represent the fairest balance.</p> <p>It is acknowledged in the impact assessment that impacts related to the provision of iVMS and permits will impact smaller business models to a greater degree as these costs will likely represent a larger proportion of their total turnover / reserves however, these still represent a relatively modest cost (i.e. £114 per annum for a permit and circa £168 for running costs of iVMS). It should be noted that iVMS is also likely to be a national requirement in any case (consultation underway) and that the device and installation is to be funded so as to reduce the impact on fishers.</p> <p><b>Recommendation:</b> no change to byelaw.</p>
Permit scheme potentially excludes independent fishers who shrimp occasionally and rely on diversification leading to a loss of potential earnings.	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it.</p> <p>It is recognised that diversification is a mainstay of the smaller scale, inshore fishers and that loss of this opportunity would have potentially serious consequences to business continuity.</p> <p><b>Recommendation:</b> to take into account during planned consultation on the administration of permits.</p>
General concerns that the particulars of how permits will be administered is unknown and pending further work.	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it.</p> <p>It is acknowledged that this is causing some concern to fishers and impacting on business planning into future years. However, given the complexities and lack of consensus amongst the industry, it is considered appropriate to develop this process in slower time.</p> <p><b>Recommendation:</b> to take into account during planned consultation on the administration of</p>

	permits.
Impacts on persons engaged in procuring a new shrimp vessel / shrimp fishing gear who may not get a permit under the byelaw.	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it.</p> <p>Balancing the needs of emerging business models and those established within the fishery is difficult given that the resource (i.e. effort) is finite and must be shared out in some way. Eastern IFCA has, whilst discussing the permit byelaw over the last three years acknowledged that there is a business risk to obtaining new vessels / new fishing gear with the intention of fishing for shrimp given that these measures are in development.</p> <p><b>Recommendation:</b> no change to byelaw. Acknowledge risk to fishers regarding potential restrictions to access into this fishery.</p>
Impacts on new / young fishers being able to enter the fishery if permit scheme policies do not take this into account. Additional burdens (and cost) which prevent new fishers entering the fishery.	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it.</p> <p>Balancing the needs of emerging business models and those established within the fishery is difficult given that the resource (i.e. effort) is finite and must be shared out in some way. Eastern IFCA has, whilst discussing the permit byelaw over the last three years acknowledged that there is a business risk to obtaining new vessels / new fishing gear with the intention of fishing for shrimp given that these measures are in development.</p> <p><b>Recommendation:</b> to take into account during planned consultation on the administration of permits.</p>
There is little evidence in the HRA which sets out the need for veil nets.	<p>The use of veil nets (separator trawls) is considered a responsible approach to minimise the impacts related to by-catch mortality of species which may be of importance to the site as a whole. However, it could be argued that consideration of the use of veil nets through the HRA is not sufficient to evidence a need for this measure in relation to the sub-features, as assessed in the document. It should be noted that vessels using shrimp beam trawls over 8m in length (aggregate) is already required through the Shrimp Fishing Nets Order 2002.</p>

	<p><b>Recommendation:</b> To remove the requirement for veil nets on all vessels operating under a shrimp permit. The need for this measure will be considered further in relation to the consideration of sustainability measures.</p>
<p>Requirement on all fishers to use a veil net will have an impact on smaller scale fishers (i.e. those with shrimp beams with a length of less than 8m aggregate).</p>	<p>Eastern IFCA has obtained expert advice from SeaFish and a large net manufacturer who consider that the use of separator trawls is viable for smaller fishing gear. However, Eastern IFCA does not intend to take forward this requirement at present in any case.</p> <p><b>Recommendation:</b> No Further Action.</p>
<p>Permits should be issued to skippers rather than vessel owners – conflict with Wash Fishery Order licencing system. i.e. some skippers are in part ownership of a vessel to enable access to the WFO.</p>	<p>The byelaw sets out that permit holders will be the owner of a vessel. This is consistent with the approach taken by other IFCAs in permitting schemes and with the Eastern IFCA whelk permit byelaw and Wash Fishery order 1992.</p> <p>It is a slightly different approach to the MMO licencing system which requires that all vessel owners are named on a licence. This approach does not require a skipper / representative to be named on the licence at all.</p> <p>The UK system for monitoring track record, landings and vessel activity through vessel monitoring systems, relies on the vessel and not the skipper. i.e. provision of track record for a skipper would require data which is not presently retained, and no national system is set up for. As such, it is considered important that the vessel forms part of the permitting system.</p> <p>It is acknowledged that, because of the complexities and previous policies of the Wash Fishery Order, some skippers / vessel owners find themselves in a position where they have effectively sold their vessel (to WFO Licence Holder) so as to enable entry into this fishery. This circumvention of the WFO licence system means that they cannot be the holder of a shrimp permit as they are not the vessel ‘owner’.</p> <p>An alternative system whereby all ‘owners’ must be named on a permit which effectively follows the hull rather than the vessel owner would not remedy this as, in theory, the present legal owner of the vessel could sell the vessel or retain the majority of shares at their discretion.</p> <p>The issue arises only where permits are limited and fishers in the situation above wish to fish</p>

in a manner outside of the conditions of the agreement between the legal owner and beneficial owner. Ultimately, the solution to this is limited and is perhaps better resolved by amendments to the WFO than the Shrimp Permit Byelaw. One important consideration is permit / licence turnover. The life span of vessels is more limited to that of people and as such, turnover will be greater, potentially allowing for more new entrants to enter the fishery. Re-issuing of licences would have to be carefully controlled however and, as with any finite resource, ultimately someone will be impacted (i.e. the business model which needs to replace a vessel may lose a permit to a 'new entrant') having an impact on that business model.

When considering the MMO model of issuing licences to the hull of a vessel (i.e. rather than a person having a degree of ownership) this is complimented by a provision to transfer licences between vessels. Business models which may need to replace a vessel can do so by transferring the licence. Being transferable also gives the licence a value and it is often the case that fishers will trade vessels with licences for a higher price. It also reduces the level of control the MMO has over the distribution of vessels and precludes some of the issues inherent in the Wash Fishery Order 1992 licencing system i.e. that vessel ownership is swapped / changed for the purpose of obtaining access to the fishery.

Eastern IFCA has sought to avoid permits obtaining any value by making them non-transferable. Where there are a finite number of permits to be issued, under an MMO licence model vessel owners would not be able to replace vessels as the permit could not be transferred. A new permit would have to be obtained instead which may not at the time be available. This would likely be to the detriment of the business model.

**Recommendation:** to retain the provision as it currently is. There are limitations identified with any model for issuing permits and likely to be many unintended consequences. However, the current model is thought to represent the best balance between the various models identified.

This model is used in the majority of IFCA permit byelaws. This model sets out that the 'owner' of a vessel can hold a permit and that the 'owner' is defined as the majority shareholder of the vessel. It essentially empowers the person with the most at stake in the

	<p>fishing business in question i.e. the vessel owner and is a level playing field for smaller and larger business owners.</p>
<p>Potential Human Rights breach by issuing permits to vessel owners rather than skippers – a permit to fish is an essential part of a skipper’s trade which is removed by providing vessel owners with permits.</p>	<p>The same case could be made for the vessel owner’s business model. This model is in keeping with other IFCA models and that of the MMO (to a lesser degree) – see above. It is not thought to be a breach of Human Rights.</p> <p><b>Recommendation:</b> No change to byelaw</p>
<p>Fishers should not have to pay to access a historic fishery</p>	<p>The Marine and Coastal Access Act includes provision for Eastern IFCA to charge fees for permits and Eastern IFCA is, being a public body, able to do so to recoup costs associated with the management measures.</p> <p>The level of charge depends on the type of permit but both charges are considered modest in relation to the value of the fishery.</p> <p>A permit scheme is an effective way to dynamically manage a fishery by implementing flexible conditions which can reflect the contemporary state of the fishery. Requiring a fee is in keeping with current with the legislation.</p> <p><b>Recommendation:</b> No change to byelaw</p>
<p>Little evidence to support the need for the closure with regards to protecting juvenile fish – particularly in context of Cefas research (unpublished) which indicates high survivability and that the area does not have any particular importance to bass (over and above other areas).</p>	<p>Shrimp fishing activity is known to result in by-catch mortality, particularly in relation to juvenile fish. Area 33 was proposed to be closed as a continuum from closure 31(North Norfolk coast offshore) and because it provides an important nursery ground for juvenile fish, which form part of the ‘water column’ sub-feature and are a food source for harbour seals (a designated feature of the site).</p> <p>Eastern IFCA has not been able to obtain the research undertaken by Cefas with regards to by-catch from shrimp fisheries and cannot therefore comment on the effectiveness of this measure from that context.</p> <p>It is, however, acknowledged that the HRA identified “no adverse effect on site integrity” from</p>

	<p>the removal of target species in relation to the 'water column' sub-feature. It could be argued that therefore, that no management is required under this sub-feature according to the HRA.</p> <p><b>Recommendation:</b> To remove the closure (closure 33) from the Marine Protected Areas Byelaw 2018. In recognition of the likely wider ecological benefits of this closure, it is recommended that it should be further considered in future iterations of management of the shrimp fishery.</p>
<p>Concerns that pot fishers will place pots in area during closed periods and not remove them, precluding trawling activity.</p>	<p>Eastern IFCA proposed that the area is closed in relation to the protection of a sub-feature of the marine protected area (the 'water-column feature'). It was further proposed, after careful consideration and dialogue with the industry, that it would be proportionate to enable some fishing in the area during the periods when the sub-feature was not at risk of being impacted by towed gear i.e. when the area does not function as a nursery area for juvenile finfish.</p> <p>The situation with potting within the area would not change as a result of the measures, i.e. pot based fishermen could set pots in this area now and preclude towed gear fishing activity but they do not. The 'seasonal' closure was intended to minimise the loss of fishing opportunity where possible.</p> <p><b>Recommendation:</b> Closed areas 33 and 32 are to be removed from the Marine Protected Areas Byelaw 2018 on the basis that these closures had not been identified as being necessary to avoid adverse effects on site integrity.</p>
<p>Wells to Blakeney closure includes habitats other than those which 'require' protection (i.e. sub-tidal mixed in waters deeper than 10m) and should not therefore be closed.</p>	<p>The HRA identified that subtidal mixed sediments and subtidal mud were the most sensitive habitats in the site, particularly where they occurred at depths greater than 10m below chart datum. For intertidal sand, the HRA found that impacts could not be ruled out, so a precautionary high mitigation score was given for this habitat. More evidence was available for The Wash embayment than for the Norfolk Coast. The HRA identified that appropriate mitigation for intertidal sand is to control the level of shrimp trawling over this feature, rather than to close it to shrimp fishing.</p>

	<p>Habitat data (Natural England data release) shows that the inshore closures on the Norfolk Coast predominantly contain intertidal sand (closure 32) and a mix of subtidal sand, mixed sediment and mud at depths less than 10m below chart datum (closure 33). These areas had been proposed for closure as a continuum from closure 31 (North Norfolk coast offshore) and because these habitats provide an important nursery ground for juvenile fish, which form part of the water column sub-feature and are a food source for harbour seals (a designated feature of the site). However, closures 32 and 33 had not been identified as being <u>necessary</u> to avoid adverse effects on site integrity, since the HRA had assessed that the shrimp fishery does not cause an adverse effect on site integrity through the removal of juvenile fish.</p> <p><b>Recommendation:</b> Closed areas 33 and 32 are removed from the Marine Protected Areas Byelaw 2018. It should be noted that there may be drivers and rationale to include these closures and such can be revisited as part of future iterations of the Marine Protected Areas Byelaw 2018.</p>
<p>Lack of limit on the number of permits is in conflict with the Fisheries Management Plan adopted under the MSC accreditation bid – i.e. need to limit the number of permits based on track record.</p>	<p>As above, the details of the administration of permits will be developed in consultation with the industry to ensure that the fishery remains viable for the various business models which rely on it. The development of the most appropriate model for administering the permit scheme will be informed in part by a consultation with the industry and the fisheries management plan proposed pursuant of Marine Stewardship Council accreditation.</p> <p>The fisheries management plan of the shrimp fishery includes a provision that the processors will not buy shrimp from vessels who have not signed up to the accreditation process and / or are not on a list of vessels produced by the group.</p> <p>On this basis, it could be argued that a limit on the number of permits is not required, given that the fisheries management plan has already capped effort. Generally, regulatory measures are only required where in the context of market failures (see impact assessment) and to an extent, these are mitigated by the fisheries management plan.</p>

	<p>That said, Eastern IFCA is committed to investigate the most appropriate way to administer the permit scheme and is not discounting a limit on the number of permits which may be the most appropriate model.</p> <p><b>Recommendation:</b> to take into account during planned consultation on the administration of permits.</p>
<p>Lack of other technical requirements (e.g. increased minimum mesh size) as per MSC accreditation bid.</p>	<p>Eastern IFCA intends to implement conditions pursuant of fisheries sustainability after further consideration of the needs of the fishery from this perspective, taking into account the fisheries management plan proposed pursuant of Marine Stewardship Council accreditation and after the measures for the protection of the marine protected area have been implemented. Mesh size will feature among these considerations.</p> <p><b>Recommendation:</b> to take into account during development of fisheries sustainability measures.</p>
<p>I-VMS costs likely to be higher than expected and likely to impact smaller business models disproportionately (as much as 40 times more than estimated)</p>	<p>The costs provided by suppliers is an annual cost of £114 to £168 per year for I-VMS devices operating at 3-minute reporting rates. Officers have no reason to believe that these are not accurate.</p> <p><b>Recommendation:</b> No change to byelaw.</p>
<p>Requirement to transmit data at specified interval written into byelaw – this is unfair on fishers where the device has ‘no signal’ (i.e. out of gsm network range).</p>	<p>Electronic monitoring devices have the ability to store data which was intended to be transmitted whilst the device is ‘out of signal’. It is acknowledged that there may be areas where the device is out of signal and Eastern IFCA will over time develop this understanding and operate using discretion and proportionality with regards to enforcing this measure.</p> <p>The provisions of the byelaw are deliberately worded to ensure that the measures are effective, and the inclusion of reporting rates needs to be included for transparency in any case. Eastern IFCA will undertake enforcement using discretion and a proportionate approach.</p> <p>It is acknowledged that the wording of the provision effectively makes it an offence to miss a single report however, this is analogous to the landing of an undersize whelk which is also</p>

	<p>unlawful but which Eastern IFCA would not reasonably expect fishers to comply with under most circumstances.</p> <p>Strict wording is also preferred to take account of the potential to inadvertently create loopholes or allowances which could be taken advantage of. This was discussed with other IFCAs as part of the collaborative work regarding the national rollout of I-VMS and a national approach was agreed.</p> <p><b>Recommendation:</b> No change to the byelaw however, Eastern IFCA will develop proportionate policy with regards to the enforcement of I-VMS requirements taking into account the proportionate approach highlighted in the Eastern IFCA Enforcement Policy.</p>
<p>Reporting rate for units is unreasonably high (i.e. every 3 minutes).</p>	<p>Suppliers have indicated that the cost associated with the 3 minute reporting rate is the same as at 10 minutes. The cost of packages is between £114 and £168 for year.</p> <p>Data at this resolution is required to enable Eastern IFCA to assess levels of activity and impacts on the features of marine protected areas and is crucial to enable more discrete closed areas to be used as mitigation. The reporting rate is in keeping with the national approach.</p> <p><b>Recommendation:</b> No change to the byelaw</p>
<p>Security of data held and concerns regarding the sharing of data. In particular, concern was raised regarding the vessel owner also being the owner of the data and thus able to access it – given the high spatial resolution of the data obtained, the fishing experience of the skipper (i.e. the value of the skipper) can be obtained by through getting the data.</p>	<p>Globavista (where the data is held) system operates in a private network where the live data is stored centrally in CEFAS at Lowestoft (CEFAS are UK Fisheries Administrations' host provider). The data is mirrored across three FAs– MMO, Marine Scotland and DAERA (Northern Ireland). The reason for this is to provide resilience and redundancy to our users and data exchanges with local partner agencies.</p> <p>At all sites, the supplier is required to comply with ISO 27001 which is a recognised security standard for storage of data. Also access to Globavista Online/Mobile system is via username, password and reinforced by a secondary challenge, and the system is only accessible to officials only. The system audits the login sessions and the MMO have implemented processes to handle a data breach.</p> <p>One thing to note is that I-VMS data is also accessible via a service from I-VMS suppliers in</p>

	<p>accordance with the I-VMS specification . Access to their data is made available by default when a skipper signs up with any of the devices.</p> <p>Whilst the concern regarding the ownership of the data, particularly from the point of view of a skipper in terms of information which is commercial in confidence etc. is acknowledged, it is outside of the scope of the byelaw. Eastern IFCA is seeking advice on this issue so as to feedback to stakeholders but it should be noted that the data will not be shared with third parties and will be processed in strict accordance with the General Data Protection Regulations and Data Protection Act 2018.</p> <p><b>Recommendation:</b> Provide feedback to concerned fishers once received regarding data ownership.</p>
<p>Closures are also required to protect areas of intertidal mud habitat and shallow mud, in part to provide a continuum from coastal waters to the deeper waters.</p>	<p>The conservation objectives were “restore” for subtidal mixed sediments and subtidal mud. The proposed closures in the Marine Protected Areas Byelaw 2018 provide protection of these most sensitive habitats. The assessment did not identify adverse effect on site integrity from impacts to intertidal mud.</p> <p>The assessment did not identify a requirement for closure of shallow mud habitat to provide a continuum from coastal waters to deeper waters.</p> <p><b>Recommendation:</b> No change to byelaw based on rationale above.</p>
<p>Monitoring and control plan needs to ensure sufficient data are gathered to understand effectiveness of mitigation measures. These should include 'control' sites (i.e. no take zones) to be used as a comparison.</p>	<p>Eastern IFCA are currently developing a monitoring and control plan for shrimp fishing. This will describe how we gather information on fishing activity and on the effectiveness of management measures. We intend that this will include monitoring of the condition of benthic habitats in heavily and lightly or non-fished areas across a range of habitat types.</p> <p><b>Recommendation:</b> Not relevant to byelaws. Eastern IFCA will develop monitoring and control plans in due course which will be effective and proportionate.</p>
<p>Larger and more widespread management measures (i.e. closures) are needed for practical</p>	<p>Eastern IFCA accepts that bigger closures are likely to have greater ecological benefits, but the closures presented by Eastern IFCA in the Marine Protected Area byelaw are designed as mitigation to reduce impacts of the shrimp fishery to an acceptable level, identified through</p>

<p>and ecological benefit to site managers and the ecosystem.</p>	<p>the HRA and based on the location of sensitive features in the site. These are to an extent limited to what is required under current government policy (i.e. the revised approach to fisheries management in marine protected areas) and the Habitats Directive. Natural England has agreed that with this mitigation in place (and the mitigation provided in the Shrimp Permit Byelaw) the fishery will not have an adverse effect on site integrity.</p> <p>Where wider ecological benefits can be obtained (i.e. those beyond that which is required), these would need to be carefully considered against the impacts to sea users and implemented only after determining that costs do not outweigh the benefits of such management. At present, Eastern IFCA is focussing its finite resources on achieving the required protective effects which is in itself a significant commitment.</p> <p><b>Recommendation:</b> No change to byelaw based on rationale above.</p>
<p>The HRA does not provide robust scientific evidence that shrimp trawling will not deteriorate the SAC or disturb the species for which the site was designated. Therefore, under article 6(2) of the Habitats Directive, this activity cannot be allowed in the site.</p>	<p>The Habitats Directive does not state that there should be no deterioration or disturbance, but these should be avoided where they could be significant in relation to the directive's objectives. Guidance (EC 2000) states that favourable condition status ...<i>can serve as a terms of reference to fix the limit of acceptable disturbance and deterioration with respect to the objectives of the directive.</i></p> <p>EIFCA's Marine Protected Areas Byelaw 2018 and Shrimp Permit Byelaw 2018 provide mitigation to ensure deterioration of natural habitats and habitats of species, and disturbance of species for which the area has been designated, are avoided.</p> <p>The assessment acknowledges limitations in some of the evidence but considers that as a whole the evidence is sufficient to support the conclusion of the HRA. This is also acknowledged by Natural England (statutory nature conservation advisors) who agree with the conclusions of the assessment.</p> <p><b>N.B.</b> Article 6(2): <i>Member states shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbances of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this directive.</i></p>

	<p><b>Recommendation:</b> No change to byelaw based on the rationale above.</p>
<p>Proposed measures do not have regard to the impact of shrimp trawling on sandeels which are a keystone species for other species of the site. This and many other by-catch species are largely ignored in the HRA.</p>	<p>Bycatch (i.e. removal of non-target species) in the shrimp fishery is considered in section 5.3.1 and Appendices 6-12 of the HRA. Sandeel was not found to be a significant bycatch species in the shrimp fishery (Eastern Sea Fisheries Joint Committee shrimp survey data, 1997-98, unpublished).</p> <p>Eight non-target species were considered in detail in the HRA. An explanation is given as to why each species was selected for this further consideration. Appendix 12 considers key species in biotopes of sub-features of the site, as described in the conservation objectives.</p> <p>Management of by-catch in this fishery will be further considered as part of the shrimp sustainability measures work which will proceed the implementation of this part of shrimp management.</p> <p><b>Recommendation:</b> No change to byelaw based on rationale above. Further provisions on the impacts of by-catch within the fishery are to be taken into account during the next phase of shrimp management sustainability measures.</p>
<p>Shrimp trawling causes a significant disturbance to benthic communities and shifts the balance within biotic communities to favour short-lived species at the expense of vulnerable, long-lived species, and reduces the diversity of the biological communities present in the habitats where this type of fishing is carried out. It also reduces the food provision for the animal species present in the site that are protected under the Birds or Habitats Directive.</p>	<p>Shrimp trawling does cause disturbance to and changes in biological communities. The HRA has assessed the extent of disturbance and change likely to be caused by the shrimp fishery and judged whether this is within the limits of acceptable disturbance using favourable condition status – and guided by the conservation objectives – as a term of reference.</p> <p>It concluded that without mitigation, “no adverse effect” could not be proven. Therefore, mitigation was designed to enable managers to rule out adverse effect, based on the evidence presented in the assessment.</p> <p>The mitigation (spatial closures) is designed to protect the most sensitive species/communities by excluding shrimp fishing in habitats where they occur (deeper, more vulnerable mixed sediment and mosaic habitat; <i>Sabellaria</i> core reef, subtidal stony reef) and limiting effort/defining acceptable gear in the remainder of the site. Natural England has agreed with the conclusion of the assessment and the mitigation.</p> <p><b>Recommendation:</b> No change to byelaw as Eastern IFCA has concluded, in agreement with</p>

	<p>Natural England, no adverse effect on site integrity as a result of the proposed management measures.</p>
<p>It is logical that after decades of shrimp trawling in this area, the habitats and their biological communities have suffered serious degradation from this bottom-contacting fishing gear, and the conservation objective should be set to 'restore' instead of 'maintain' the site.</p>	<p>This is outside of Eastern IFCA's remit – we do not set the conservation objectives of marine protected areas. The HRA closely followed the conservation advice for the site, including the conservation objectives of "maintain" for the majority of features and "restore" for subtidal mixed sediments and subtidal mud habitats.</p> <p><b>Recommendation:</b> No change to byelaw because the issue raised is not within the remit of Eastern IFCA. Eastern IFCA will consider any changes to conservation advice as part of the monitoring and control plans.</p>
<p>The HRA does not fulfil article 6(3) of the Habitats Directive, which sets out it "may not have gaps and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works on the protected site concerned". Eastern IFCA could not provide robust scientific evidence that shrimp trawling will not deteriorate the SAC or disturb the species for which the site was designated, this activity cannot be allowed in the site which is therefore a breach of Article 6(3) of the Habitats Directive.</p>	<p>A thorough scoping exercise was undertaken to ensure all relevant features and sub-features and pressures caused by the fishery were considered in the HRA, thus eliminating any gaps.</p> <p>Confidence in evidence was presented alongside each section of the assessment, and the conclusions were drawn in relation to both what the evidence shows and what confidence applied to the evidence.</p> <p>A level of disturbance is acceptable. The test of an appropriate assessment is whether the activity causes enough disturbance / deterioration to have an adverse effect on site integrity. As set out above, Eastern IFCA concluded in the HRA that the fishery will not cause an adverse effect on site integrity with the mitigation applied.</p> <p>Eastern IFCA set out that the balance of evidence was sufficient to support the conclusion of no adverse effects on site integrity, but only with mitigation applied as described. Natural England has agreed with the conclusion of the assessment and the mitigation.</p> <p><b>Recommendation:</b> No change to byelaws as per the rationale above.</p>

<p>Comments of NE show significant problems with the HRA</p>	<p>Eastern IFCA accept that NE has raised questions about some parts of the HRA. The HRA was developed over a significant time period which included significant feedback from Natural England and importantly, Natural England has agreed with the conclusion that with mitigation, the shrimp fishery will not have an adverse effect on site integrity.</p> <p><b>Recommendation:</b> No change to byelaws as per the rationale above.</p>
<p>Continued trawling will suppress the growth and development of <i>Sabellaria</i> crust, and then potentially reef. Significant extension of protection to the central portion of deep water of the site is needed.</p>	<p>The proposed mitigation ensures that <i>Sabellaria</i> reef is protected in line with Natural England's updated advice for this feature. The spatial closures incorporate extended reef areas, including the large closure in the central Wash that contains <i>Sabellaria</i> reef, crusts and mosaic habitat as well as subtidal mixed sediment and subtidal stony reef.</p> <p><b>Recommendation:</b> No change to byelaws as proposals are in keeping with Natural England advice.</p>
<p>Eastern IFCA should introduce an increased minimum mesh size (22mm)</p>	<p>Eastern IFCA intends to consider fisheries sustainability measures subsequent to the completion of work for the protection of MPA.</p> <p><b>Recommendation:</b> No change to byelaw. Take into consideration as part of the planned work on fisheries sustainability.</p>
<p>Concerns that Eastern IFCA will increase permit fees</p>	<p>Any fee increases would have to be put to a formal consultation and a further Impact Assessment. Because the fees are written into the Byelaw, Eastern IFCA does not have the power to vary them without consent of the Minister.</p> <p><b>Recommendation:</b> No change to the byelaw.</p>
<p>No full-time shrimp fisher represented on Eastern IFCA (member)</p>	<p>Eastern IFCA committee includes a range of expertise including the owner of a shrimp processing factory. Insight into impacts on the industry are gathered during informal and formal consultations to inform decision making.</p> <p><b>Recommendation:</b> Not relevant to development of byelaw.</p>
<p>Public notice in Fishing News was not clear enough (EIFCA logo too</p>	<p>The public notice was considered sufficient to inform stakeholders and the size of logo was increased in the second consecutive advert.</p>

small)	<b>Recommendation:</b> Not relevant to development of byelaw.
Lack of parity between restrictions on fishers and those on windfarms	<p>Windfarm developments are often considered to be of overriding national importance and as such are often exempted from having to meet the requirements of the Habitats Directive in the same way as fishing activity. As a statutory consultee, Eastern IFCA does engage with the Planning Inspectorate and with the Marine Licencing team at the Marine Management Organisation regarding windfarm developments and provide feedback in this regard.</p> <p><b>Recommendation:</b> Not relevant to development of byelaw</p>
Limited evidence for closure at Wells Harbour – particularly that evidence used was not specifically relevant to shrimp trawls as used by local fishers.	<p>A closure was implemented at Wells for the protection of eel-grass since the implementation of the Protected Area Byelaw in May 2014. This closure was subsequently re-established under the Marine Protected Areas Byelaw 2016.</p> <p>Closed Area 32 incorporates a stretch of intertidal area along the North Norfolk Coast from Wells to Blakeney (approximately) and encompasses the original closed area at Wells and including an additional element which includes the Harbour which is being recommended as removed. It should be noted however that this does not remove the need to have a spatial restriction in place to protect the area understood to contain the ‘red-risk’ feature eelgrass at Wells which is already in place.</p> <p><b>Recommendation:</b> Area 32 is proposed as being removed (in relation to points above). The Wells closure will still require protection, and this will be fed back to the stakeholder.</p>
Health and safety concerns regarding the stowing of gear – i.e. it is dangerous to have to ‘lash and stow’ fishing gear when transiting a closed area.	<p>The byelaw includes an exemption to this requirement in relation to shrimp fishing gear where a vessel is transiting a closure and where the vessel has been fishing immediately up to and will recommence fishing immediately after leaving the closed area, but the beams must be clear of the water.</p> <p><b>Recommendation:</b> Not relevant to development of byelaw</p>
Disproportionate impact on fishers outside of the Wash – no need for district wide permit scheme given low levels of shrimp fishing activity	<p>Given the potential for impacts within the Wash and North Norfolk Coast SAC, any level of displacement poses a risk the site integrity of other marine protected areas and in particular the Suffolk Estuaries. A permit scheme will enable Eastern IFCA to effectively monitor and manage as necessary, fishing activity throughout the district.</p>

<p>elsewhere. Limited displacement expected (4%) therefore there is not sufficient drive to impose permit scheme outside of Wash and North Norfolk Coast SAC.</p>	<p>In addition, the main shrimp fishery is known to extend outside of the Wash and North Norfolk Coast SAC (e.g. up the Lincolnshire coast) and ultimately the byelaw is intended to manage the sustainability of the fishery (in addition to the protection of designated habitats) and as such needs to include these areas.</p> <p><b>Recommendation:</b> No change to the Byelaw.</p>
<p>Number of tows permitted in fishery should be offset by technical requirements for gear types i.e. the requirement to have flat 'shoes' on beam trawls reduces the reassurance therefore more tows should be permitted.</p>	<p>The manner in which effort is limited is part of ongoing work including and this includes the 'amount' of effort that can be permitted.</p> <p>The requirement to have flat shrimp beam 'shoes' is primarily a preventative measure to ensure that fishing gear does not change or adapt to include any item which may cause penetration. Effort limitations are primarily in relation to the pressure 'abrasion' rather than penetration and which will not be reduced by fishers using flat 'shoes'. As such this will not have an impact on the total amount of effort which can be permitted.</p> <p><b>Recommendation:</b> No change to the byelaw.</p>
<p>Formal operating procedure not presented as part of formal consultation (referred to in schedule 1 in relation to flexible conditions and eligibility criteria).</p>	<p>The formal Operating procedure is not part of the byelaw itself and not subject to the consultation. Eastern IFCA has proposed a formal operating procedure to be considered at the 34<sup>th</sup> EIFCA Meeting and will make this publicly available in due course.</p> <p><b>Recommendation:</b> No change to the byelaw</p>
<p>Eligibility criteria with regards to previous offences is unreasonable / disproportionate. Marine and Coastal Access Act includes a provision for Courts to be able to remove a permit / restrict further permits therefore Eastern IFCA do not need the same power. Particularly given that it would not distinguish between 'seriousness'</p>	<p>Eastern IFCA proposed eligibility criteria which would exclude fishers from obtaining a permit if they had been convicted of offences or received FAPs numbering more than two within a period of three years. This is included so as to ensure that fishers with a track-record of offences could be excluded from the fishery and encourages compliance. Crucially, the Marine and Coastal Access Act 2009 has a provision that a court may order the same (i.e. that they are excluded from receiving further permits) but only in relation to IFCA byelaw offences.</p> <p>Eastern IFCA also received legal advice to the effect that, as per the Rehabilitation of Offenders Act 1974, spent convictions (i.e. convictions which are more than 12 months old)</p>

<p>of offence (i.e. two relatively minor offences could restrict fishing for 3 years).</p>	<p>cannot be used to prejudice a person's employment.</p> <p>Legal advice received essentially indicated that the eligibility criteria could not be used for the desired timescales, and that to be in line with the Rehabilitation of Offenders act 1974 would actually need to be made stricter. Other responses indicated that the proposed eligibility criteria was already unreasonable/disproportionate.</p> <p><b>Recommendation:</b> To remove convictions and FAPs for offences from the eligibility criteria</p>
<p>Benefits from the measures are not taken into account in the impact assessment and are not monetised. Further benefits should be outlined including:</p> <ul style="list-style-type: none"> <li>• Increase biodiversity</li> <li>• Increase productivity</li> <li>• Increase some commercial species (fish such as sandeels, dab, plaice, sole)</li> <li>• Increase resilience of the habitats and species to climate change and impacts.</li> <li>• Increase the diversity and assemblages of vertebrates and invertebrates.</li> <li>• Increase the feeding opportunities for seabirds, mammals and other species associated with wider SAC and SPA management objectives</li> <li>• Increase in non-use benefits to society (an</li> </ul>	<p>The purpose of the impact assessment is to set out the costs and the benefits of the intervention. The form used is the standard form used by government departments. The impact assessment includes reference to the ecological benefits of the intervention as well as the likely impacts on fishing businesses.</p> <p>It is acknowledged that further benefits can be included in the narrative however, quantifying or monetising these is not possible with evidence which is currently available.</p> <p><b>Recommendation:</b> to include further benefits which are relevant to the management measures.</p>

<p>understanding that spaces are left alone for nature)</p> <ul style="list-style-type: none"> <li>• Increase in natural food-web</li> <li>• Increase in abundance of brood stock and spawning inside closed areas</li> <li>• Spill-over into open fishing grounds.</li> <li>• Increased CPUE in areas open to fishing around closed areas, that will reduce the costs (fuel) associated with fishing harder and for longer in open areas.</li> <li>• Increased security of the fishery, knowing that part of the natural habitat of the exploited species is off-limits, therefore guaranteeing that there will be a consistent return into the fishery.</li> </ul>	
<p>Some of the closures are too small to be effectively enforced or complied with by fishers and as such the measures will not have a protective effect.</p>	<p>The small closures are designed to protect <i>Sabellaria</i> reef in line with Natural England's updated advice for this feature (NE, 2016).</p> <p>Small closures are effective as evidenced by small closures in The Wash Fishery Order 1992 cockle fishery. Fishers are provided coordinates of closures so as to enable them to programme plotters used on fishing vessels with the closed areas.</p> <p>The introduction of I-VMS will increase enforceability and the effectiveness of the measures.</p> <p><b>Recommendation:</b> No change to byelaws</p>



**Eastern  
Inshore Fisheries and Conservation Authority**

**MARINE AND COASTAL ACCESS ACT 2009 (c. 23)**

**Shrimp Permit Byelaw 2018**

The Authority for the Eastern Inshore Fisheries and Conservation District in exercise of its powers under sections 155 and 156 of the Marine and Coastal Access Act 2009 makes the following byelaw for the District.

**Interpretation**

1. In this byelaw:
  - a) 'the Authority' means the Eastern Inshore Fisheries and Conservation Authority as defined in Articles 2 and 4 of the Eastern Inshore Fisheries and Conservation Order 2010 (SI 2010/2189);
  - b) 'bottom towed gear' means any fishing gear designed to be towed, dragged or pushed through the water whilst in contact with the seabed;
  - c) 'Category One Permit' means a shrimp permit for fishing for shrimps for commercial purposes within the Wash and North Norfolk Coast Special Area of Conservation;
  - d) 'Category Two Permit' means a shrimp permit granted for fishing for shrimps for commercial purposes within the district except within the Wash and North Norfolk Coast Special Area of Conservation;
  - e) 'the district' means the Eastern Inshore Fisheries and Conservation District as defined in Articles 2 and 3 of the Eastern Inshore Fisheries and Conservation Order 2010;
  - f) 'fishing' includes digging for bait; the shooting, setting, towing and hauling of fishing gear; gathering sea fisheries resources by hand or

using a hand operated implement; and catching, taking or removing sea fisheries resources;

- g) 'fishing for commercial purposes' means fishing for sea fisheries resources for sale or reward;
- h) 'fishing gear' includes any nets, pots, ropes, anchors, surface markers, lines, dredges, grabs, rakes or other implements used for the purposes of fishing;
- i) 'named representative' means a person who has been granted permission to fish from a vessel by the owner of that vessel, and has been nominated by the owner of that vessel;
- j) 'owner' means the majority shareholder of a vessel as recorded on the certificate of registry for that vessel granted under the Merchant Shipping Act 1995 (c.21) and the Merchant Shipping (Registration of Ships) Regulations 1993 (SI 1993/3138), or the certificate of registry for that vessel in the Channel Islands or Isle of Man;
- k) 'registered fishing vessel' means a vessel registered under Part II of The Registry of Shipping and Seaman as governed by the provisions of the Merchant Shipping Act 1995 and the Merchant Shipping (Registration of Ships) Regulations 1993, or in the Channel Islands or Isle of Man; and in respect of which there is a valid fishing licence issued under the Sea Fish (Conservation) Act 1967 (c.84);
- l) "remotely accessed electronic reporting device" means one of the following devices;
  - i. A 'Vessel Monitoring System +' means a device that meets the requirements for such devices required by the Marine Management Organisation;
  - ii. A device that is listed on the Marine Management Organisation and Inshore Fisheries and Conservation Authorities Inshore Vessel Monitoring System approved products register;
- m) "required information" means the following information;
  - i. a report flag to indicate that the report is the result of the Authority's requirements and is not made under EU regulations;
  - ii. the most recent geographical position of the fishing vessel to 5 decimal places (in WGS84);

- iii. date and time (in UTC) of the fixing of the most recent position;
  - iv. the instant speed and course of the vessel (equivalent to 0.1 knots and course expressed in degrees (true not magnetic) to 0.1 degree) at the time of the report;
  - v. the unique serial number of transmitting device;
  - vi. a status code;
  - vii. a Geofence reference number.
- n) 'shrimp' means an organism of the species *Pandalus montagui* (commonly known as pink shrimp) or of the genera *Crangon* (including *Crangon crangon*, commonly known as brown shrimp) or *Palaemon*;
  - o) 'shrimp permit' means a Category One Permit or a Category Two Permit;
  - p) 'shrimp return forms' means forms issued by the Authority pursuant of paragraph 23;
  - q) 'try-nets' mean trawls deployed by hand from a vessel used to determine the presence or absence of shrimps;
  - r) 'vessel' means a ship, boat, raft or watercraft of any description and includes non-displacement craft, personal watercraft, seaplanes and any other thing constructed or adapted for floating on or being submerged in water (whether permanently or temporarily) and a hover craft or any other amphibious vehicle, used or capable or being used as a means of transportation on water;
  - s) 'Wash and North Norfolk Coast Special Area of Conservation' means the area as set out in Schedule 2.

## Prohibitions

- 2. A person must not fish for, land or retain shrimp caught within the Wash and North Norfolk Coast Special Area of Conservation for commercial purposes or from a registered fishing vessel unless that person is:
  - a) the holder of a valid Category One Permit; or

- b) a named representative of the holder of a valid Category One Permit.
- 3. A person must not fish for, land or retain shrimp caught within the district outside of the Wash and North Norfolk Coast Special Area of Conservation for commercial purposes or from a registered fishing vessel unless that person is:
  - a) the holder of a valid Category Two Permit; or
  - b) a named representative, of the holder of a valid Category Two Permit.
- 4. A person must not fish for shrimp under the authority of a shrimp permit from a vessel other than the vessel named on that shrimp permit without firstly obtaining the agreement of the Authority. Such agreement may be given in circumstances where the permit holder, named representative or the named vessel are unable to put to sea.
- 5. A person must not use a vessel which is named on a shrimp permit without a fully functioning, remotely accessed electronic reporting device on board the vessel at all times and where the required information is transmitted at least once in every three minutes.
- 6. If the remotely accessed electronic reporting device installed pursuant to paragraph 5, has failed to transmit the required information, for whatever reason, a person must;
  - a) if at sea, immediately cease fishing and immediately return to port or leave the Eastern IFC District;
  - b) if at port or outside the Eastern IFC District, remain there.
- 7. Where a remotely accessed electronic reporting device has been repaired or replaced the permit holder or named representative must provide a copy of the engineer's report to the Authority confirming that the equipment is fully operational before;
  - a) leaving port within the district;
  - b) entering the area of the Eastern IFC District; or
  - c) using the vessel within the Eastern IFC District.

## **Permits**

8. The Authority may issue a shrimp permit to the owner of a registered fishing vessel., or to a person fishing for commercial purposes other than from a vessel.
9. A vessel may be named on a maximum of one Category One permit and one Category Two permit.
10. A person without a vessel may hold a maximum of one Category One permit and one Category Two permit.
11. Any change in legal or beneficial ownership of a registered fishing vessel after the issue of the permit will result in the cancellation of any shrimp permit issued to that vessel.
12. Shrimp permits are not transferable between persons or vessels.
13. An application for a shrimp permit must be made using printed forms available from the Authority. These forms will require applicant and vessel details. The applicant may nominate up to two persons as their named representatives whose details must be entered on the application form.
14. Permits will be valid from the date of issue until the following 1<sup>st</sup> of August.
15. The Authority may restrict the number of shrimp permits issued and may set criteria to restrict eligibility for a shrimp permit in accordance with the procedure set out in Schedule 1.
16. The Authority may suspend the issuing of Category One Permits for a period of time or for periods of time not exceeding until the following 1<sup>st</sup> August if there is an enhanced risk to stocks or if there is an enhanced risk to site integrity of the Wash and North Norfolk Coast Special Area of Conservation.

## **Temporary closures of shrimp fishing activity**

17. The Authority may close the shrimp fishery within the Wash and North Norfolk Coast Special Area of Conservation for a period of time or for periods of time not exceeding until the following 1<sup>st</sup> August if there is an enhanced risk to stocks or if there is an enhanced risk to site integrity of the Wash and North Norfolk Coast Special Area of Conservation and shrimp permit holders will be notified of such in writing.

### **Shrimp permit fees**

18. A fee will be charged for each shrimp permit which must be paid prior to the issuing of the permit unless a person is issued a Category One Permit and a Category Two Permit in relation to the same registered fishing vessel in which case a fee is only charged for a Category One Permit.
19. The fee for a Category One Permit is £100 and the fee for a Category Two Permit is £44.

### **Flexible permit conditions**

20. The Authority may attach to permits flexible conditions which fall within one or more of the categories listed in paragraph 21.
21. The flexible permit condition categories are:
  - a) vessel design restrictions;
  - b) catch restrictions;
  - c) fishing gear restrictions;
  - d) fishing effort restrictions;
  - e) spatial restrictions;
  - f) time restrictions;
  - g) vessel monitoring device requirements.
22. The Authority may issue, vary or revoke flexible permit conditions following a review conducted in accordance with the procedure set out in Schedule 1.
23. Failure to comply with a flexible permit condition is an offence against this byelaw.

### **Catch returns**

24. The holder of a shrimp permit must have on board shrimp return forms which will be provided by the Authority which are completed with such information as is required by the Authority up to the day they are fishing and must submit such to the Authority, no later than the 10<sup>th</sup> day of each month, returns forms relating to the previous month.
25. The information referred to in paragraph 24 may include:
  - a) spatial information;

- b) information on fishing effort;
- c) catch data;
- d) by-catch information;
- e) gear information;
- f) date and time information;
- g) vessel information.

### **Revocations**

26. The Byelaw with the title 'BYELAW XII. Shrimp and prawn trawling' made by North Eastern Sea Fisheries Committee in exercise of its powers under the Sea Fisheries Regulation Act 1966 and which were in force immediately before the making of this byelaw is revoked such as it applied within the District.

## **Schedule 1**

### **Procedure**

1. The procedure for restricting the number of shrimp permits issued and setting criteria to restrict the eligibility for a shrimp permit as referred to in paragraph 15, or issuing, varying or revoking flexible permit conditions as referred to in paragraph 22, (in this Schedule, 'the proposed changes') must include the following steps:
  - a) acquisition of relevant available evidence including:
    - i. scientific and survey data, and scientific advice provided by the Authority, the Centre for Environment, Fisheries and Aquaculture Sciences or such other persons as the Authority thinks fit;
    - ii. advice given by Natural England or other external authorities, organisations, persons or bodies as the Authority thinks fit; and
    - iii. information from any other relevant source including that which is relevant to effective enforcement;
  - b) consultation by such methods as the Authority considers appropriate with such stakeholders, organisations and persons as appear to the Authority to be representative of the interests likely to be substantially affected by the proposed changes;
  - c) undertaking an impact assessment relating to the proposed changes;
  - d) consideration by the Authority of all information arising from subparagraphs (a) to (c) above.
2. The Authority must review flexible permit conditions and restrictions of the issuing of shrimp permits no less frequently than every four years after the date that a flexible permit condition or restriction on the issuing of shrimp permits has taken effect.
3. The review of flexible permit conditions or restrictions on the issuing of shrimp permits will be in accordance with a formal operational procedure agreed by the Authority and will include the steps set out in paragraph 1.
4. Where restrictions on the issuing of permits or flexible permit conditions are issued, maintained, varied or revoked shrimp permit holders will be notified in writing.

## Schedule 2

### Wash and North Norfolk Coast Special Area of Conservation

The following table sets out the co-ordinates of the Wash and North Norfolk Coast Special Area of Conservation as referred to in 1 (r) of the Byelaw above.

The Wash and North Norfolk Coast Special Area of Conservation is defined by a boundary drawn by the series of straight lines connecting points A to D and a line connecting point D to E which follows the land boundary which is to be taken as mean high water springs.

Point	Latitude	Longitude
A	53° 07'.69 N	0° 20'.55 E
B	53° 03'.66 N	0° 28'.16 E
C	53° 02'.73 N	01° 07'.55 E
D	52° 57'.16 N	01° 07'.10 E
E	53° 07'.69 N	0° 20'.55 E

### **Explanatory Note**

(This note does not form part of the byelaw)

This byelaw requires people who fish for commercial purposes from a registered fishing vessel for shrimps within the District to obtain a shrimp permit. They are also required to fish in accordance with any flexible permit conditions issued by the Authority.

Shrimp permits expire on the 1<sup>st</sup> August each year and a fee is payable to the Authority for the issuing of a shrimp permit which is £100 for a Category One Permit and £44 for a Category Two Permit.

The number of shrimp permits which will be issued by the Authority can be restricted. The Authority can also set criteria to determine which applicants are eligible for a shrimp permit.

To limit the number of shrimp permits or to introduce, vary or revoke eligibility criteria the Authority will carry out a consultation with potentially affected stakeholders and produce an Impact Assessment which will be considered by the Authority.

The issuing of shrimp permits may be suspended until the following 1<sup>st</sup> August if there is an enhanced risk to stocks or if there is an enhanced risk to site integrity of the Wash and North Norfolk Coast Special Area of Conservation.

The shrimp fishery within the Wash and North Norfolk Coast may be closed for a period or for periods of time not exceeding until the following 1<sup>st</sup> August if there is an enhanced risk to stocks or if there is an enhanced risk to site integrity of the Wash and North Norfolk Coast Special Area of Conservation.

This byelaw also allows the Authority to impose flexible permit conditions which will reflect best available evidence. These permit conditions will be used to protect fisheries and the environment and to ensure long-term, sustainable fisheries.

The Authority must also review any restrictions on the issue of shrimp permits or flexible permit conditions once every four years as a minimum.



## Eastern Inshore Fisheries and Conservation Authority

### Shrimp Permit Byelaw 2018

#### **Flexible Permit Conditions – Category One Permit**

These flexible permit conditions relate to Category One shrimp permits issued under the Shrimp Permit Byelaw 2018 and should be read in conjunction with that byelaw.

#### **Permit conditions**

##### Try-nets

1. No vessel shall carry or deploy more than one 'try net'.
2. 'Try-nets' must;
  - a) be deployed and hauled by hand;
  - b) be no more than 500 millimetres in length;
  - c) be no more than 20 kilograms in weight;
  - d) not have tickler chains or any other attachment designed or with the effect of penetrating the seabed except guides, skids or shoe.

##### Prohibited attachments

3. A vessel must not carry or deploy a net, the mesh of which measures between 16 and 31 millimetres which has the following attachments:
  - a. tickler chains;
  - b. any item designed or with the effect of penetrating the seabed except guides, skids or shoes.

##### Guides, skids and shoes

4. A vessel must not carry or deploy a net, the mesh of which measures between 16 and 31 millimetres which uses guides, skids or shoes unless the surface of such which comes into contact with the seabed is flat across its entire length.

**Commencement date: xx/xx/xxxx**

**Latest review date: xx/xx/xxxx**

**Expiry date: n/a**

I hereby certify that the above permit conditions were made by Eastern Inshore Fisheries and Conservation Authority at their meeting on the 7<sup>th</sup> November 2018.

The above eligibility criteria come into effect on xx xx xxxx

A handwritten signature in black ink, appearing to read 'J. Gregory', written in a cursive style.

**Julian Gregory**

Chief Executive Officer

Eastern Inshore Fisheries and Conservation Authority

6 North Lynn Business Village, Bergen Way, King's Lynn, Norfolk PE30 2JG



## Eastern Inshore Fisheries and Conservation Authority

### Shrimp Permit Byelaw 2018

#### **Flexible Permit Conditions – Category Two Permit**

These flexible permit conditions relate to Category Two shrimp permits issued under the Shrimp Permit Byelaw 2018 and should be read in conjunction with that byelaw.

#### **Permit conditions**

##### Try-nets

5. No vessel shall carry or deploy more than one 'try net'.
6. 'Try-nets' must;
  - e) be deployed and hauled by hand;
  - f) be no more than 500 millimetres in length;
  - g) be no more than 20 kilograms in weight;
  - h) not have tickler chains or any other attachment designed or with the effect of penetrating the seabed except guides, skids or shoe.

##### Prohibited attachments

7. A vessel must not carry or deploy a net, the mesh of which measures between 16 and 31 millimetres which has the following attachments:
  - c. tickler chains;
  - d. any item designed or with the effect of penetrating the seabed except guides, skids or shoes.

##### Guides, skids and shoes

8. A vessel must not carry or deploy a net, the mesh of which measures between 16 and 31 millimetres which uses guides, skids or shoes unless the surface of such which comes into contact with the seabed is flat across its entire length.

**Commencement date: xx/xx/xxxx**

**Latest review date: xx/xx/xxxx**

**Expiry date: n/a**

I hereby certify that the above permit conditions were made by Eastern Inshore Fisheries and Conservation Authority at their meeting on the 7<sup>th</sup> November 2018.

The above eligibility criteria come into effect on xx xx xxxx

A handwritten signature in black ink, appearing to read 'J. Gregory', with a stylized initial 'J' and a long horizontal flourish extending to the right.

**Julian Gregory**

Chief Executive Officer

Eastern Inshore Fisheries and Conservation Authority

6 North Lynn Business Village, Bergen Way, King's Lynn, Norfolk PE30 2JG

<b>Title:</b> Shrimp Permit Byelaw 2018  <b>IA No:</b> DRAFT_EIFCA005  <b>Lead department or agency:</b> Eastern Inshore Fisheries and Conservation Authority (IFCA)  <b>Other departments or agencies:</b>	<b>Impact Assessment (IA)</b>			
	<b>Date:</b> 25/06/2018			
	<b>Stage:</b> Development/Options			
	<b>Source of intervention:</b> Domestic			
	<b>Type of measure:</b> Other			
<b>Contact for enquiries:</b> Julian Gregory (CEO) Eastern IFCA, 6 North Lynn Business Village, Bergen Way, King's Lynn, Norfolk, PE30 2JG; tel:01553 775321, email: mail@eastern-ifca.gov.uk				
<b>Summary: Intervention and Options</b>				<b>RPC Opinion:</b> Not Applicable

**Cost of Preferred (or more likely) Option**

Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
£-153,423	£-91,655	£10,134	Not applicable	To be determined

**What is the problem under consideration?** Shrimp fishing within the Wash and North Norfolk Coast Special Area of Conservation (SAC) has been assessed and adverse impacts on site integrity cannot be ruled out. Spatial closures (proposed within the Marine Protected Areas Byelaw 2018) mitigate the risk to the most sensitive sub-features (sub-tidal mixed sediment and subtidal mud). Outside of proposed closures, measures are required to prevent changes in behaviours (e.g. effort increases, novel gears) which would result in an adverse impact on site integrity. There is also a risk of displacement of activity into other marine protected areas. This byelaw will mitigate this risk by enabling Eastern IFCA to implement permit conditions, eligibility criteria for issuing permits and limitations on fishing effort.

**Why is government intervention necessary?** The risk to Marine Protected Areas (MPAs) dictates that a regulatory approach is required in relation to the protection of designated habitats.

**What are the policy objectives and the intended effects?**

Objectives: To manage long-term, sustainable shrimp fisheries within the Eastern IFC District which do not adversely impact the conservation objectives of marine protected areas. The intended effects of the byelaw are to implement necessary technical measures and effort limitations (as required) using a permit scheme and to obtain better fisheries information related to this fishing activity (including through requiring all shrimp fishing vessels to have operational vessel monitoring devices).

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

Option 0. Do nothing.  
Option 1. Shrimp Permit Byelaw 2018  
Option 2. Total closure

The preferred option is option 1 – The proposed byelaw will enable Eastern IFCA to dynamically manage shrimp fisheries through the implementation of permit conditions to meet the requirements of the fishery and the marine environment. It will also provide a greater level of information regards fishing activity on which to base management.

<b>Will the policy be reviewed?</b> It will be reviewed. <b>If applicable, set review date:</b> 07/2024					
Does implementation go beyond minimum EU			No		
Are any of these organisations in scope?		<b>Micro</b> Yes	<b>Small</b> Yes	<b>Medium</b> Yes	<b>Large</b> Yes

What is the CO2 equivalent change in greenhouse gas emissions? (Million tonnes CO2 equivalent)	<b>Traded:</b> N/A	<b>Non-traded:</b> N/A
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***I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.***

Signed by the responsible Chief Executive: \_\_\_\_\_ Date: \_\_\_\_\_

# Summary: Analysis & Evidence

Policy Option 1

## Description:

### FULL ECONOMIC ASSESSMENT

Price Base Year 2018	PV Base Year 2016	Time Period Years 10 years	Net Benefit (Present Value (PV))		
			Low: 0.0	High: 0.0	Best Estimate: 0.0

COSTS	Total Transition (Constant Price) 1 Years	Average Annual (excl. Transition)(Constant Price)	Total Cost (Present Value)
Low	0.0	£13,382	£115,188
High	0	£28,616	£246,318
Best Estimate	0	£17,824	£153,423

#### Description and scale of key monetised costs by 'main affected groups'

Costs associated with electronic monitoring devices (between £114 and £168 per year) and the permit fee (£100 per year for Category One Permit, £44 per year for a Category Two Permit) affecting between 29 and 80 vessel owners. The transitional cost is limited to an estimated 5 fishers associated with the installation of separator trawls or sorting grids in their shrimp fishing gear (cost estimated at £350 per vessel). The scale of this cost is considered minimal in relation to the potential income generated from the fishery the average first sale value of which is £1.66 million per year (from 2010 to 2017 inclusive).

#### Other key non-monetised costs by 'main affected groups'

The implementation of a permit scheme has the potential to change fishing behaviour as a result of 'market failures' leading to an increase in fishing effort and ultimately, poorer fishing returns and implementation of more restrictive fishing effort limitations.

BENEFITS	Total Transition (Constant Price) Years	Average Annual (excl. Transition)(Constant Price)	Total Benefit (Present Value)
Low	Unknown	Unknown	Unknown
High	Unknown	Unknown	Unknown
Best Estimate	n/a	n/a	n/a

#### Description and scale of key monetised benefits by 'main affected groups'

none identified

#### Other key non-monetised benefits by 'main affected groups'

Protection of the habitats identified as being at risk from shrimp fishing activity will have a positive effect on the overall ecological functioning of the MPA and potentially improve fishery productivity, including in relation to species other than shrimps.

Key assumptions/sensitivities/risks	<b>Discount rate</b>	3.5%
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Assumptions: Fishing activity levels (based on previous six years), costs associated with electronic monitoring devices.

Sensitivities/risks: Effort limitations/fishery closures may be required which have an economic impact on fishers (reduction of earnings, lost fishing opportunity). Permit scheme changes behaviours (increase in fishing effort and subsequent reduction in earnings per fisher). Displacement from spatial closures (Marine protected Areas Byelaw 2018) causes displacement of activity into more sensitive areas.

### BUSINESS ASSESSMENT (Option 1)

<b>Direct impact on business (Equivalent Annual):</b>	<b>Score for Business Impact Target (qualifying provisions only):</b>	
Costs: 10134	Benefits: 0.0	Net: -10134
		N/A

# Evidence Base

## Problem under consideration

Defra's revised approach to managing fishing activity in European Marine Sites (EMS) requires Eastern Inshore Fisheries and Conservation Authority to ensure that fishing activity does not have an adverse effect on site integrity in marine protected areas (MPA) which occur within the IFC District. This requirement derives from Article 6 of the Habitats directive and the Conservation of Habitats and Species Regulations (as amended) 2017 (SI 2017/1012). Furthermore, Eastern IFCA are required under the Marine and Coastal Access Act 2009 to further the conservation objectives of any Marine Conservation Zones within the Eastern IFC District.

Eastern IFCA also has a duty to take action to ensure the sustainable exploitation of fisheries within its district as per section 153 of the Marine and Coastal Access Act 2009. In carrying out its duties Eastern IFCA is obliged to ensure good environmental status of fish and shellfish stocks as per the Marine Strategy Framework Directive (2008/56/EC) namely; sustainable fisheries with high long-term yields, stocks functioning at full reproductive capacity, and to maintain or increase the proportion of older and larger individuals.

The prolific shrimp fishery within the Eastern IFC District co-occurs primarily with the Wash and North Norfolk Coast Special Area of Conservation (SAC) – see fig 1. The fishery was assessed in accordance with s.61 of the Habitats and Species Regulations (as amended) 2010 and it was concluded that management measures are required to prevent an adverse effect on site integrity.

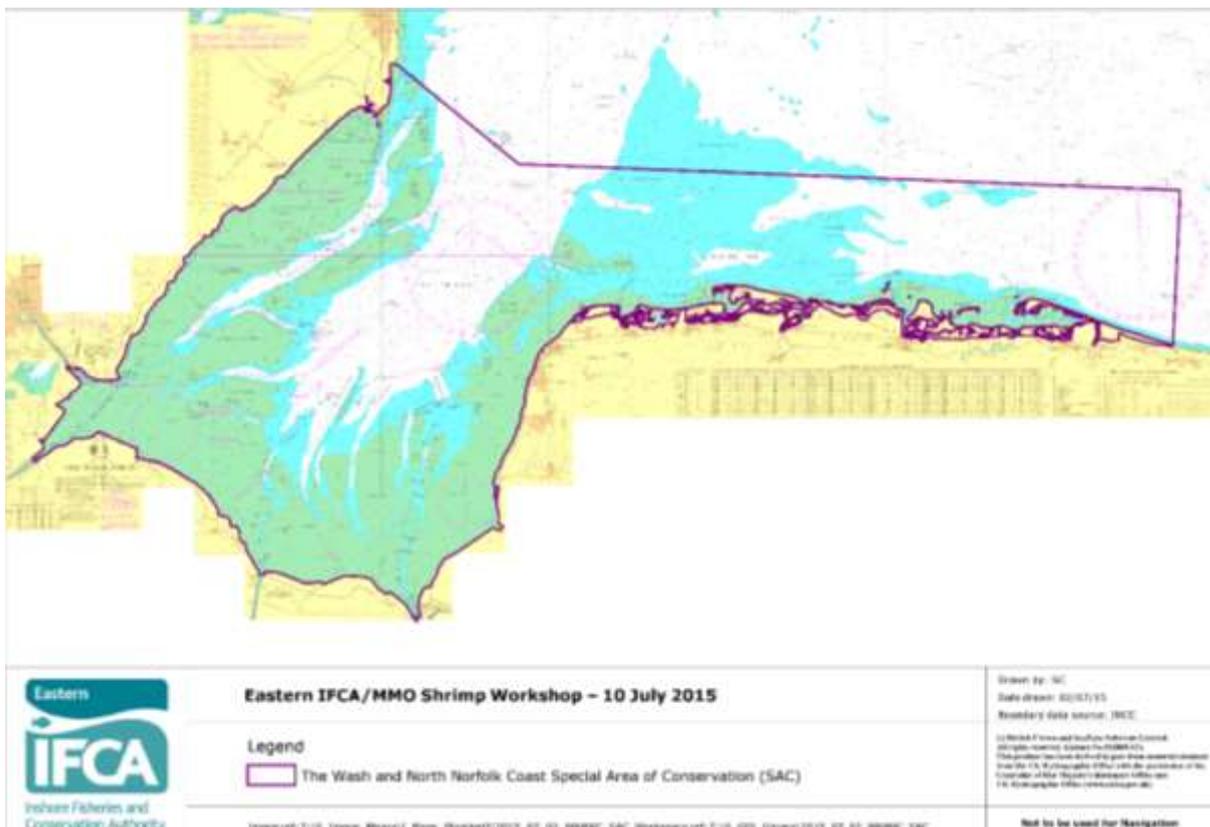


Figure 1. Chart showing the boundary of the Wash and North Norfolk Coast Special Area of Conservation.

The Wash and North Norfolk brown shrimp fishery is the most important in the UK, accounting for approximately 90% of UK landings (ICES, 2010). The annual first sale value of this fishery has ranged from £538,234 to £2,668,685 with an average value of £1,662,408 (Marine Management Organisation landings data release 23/08/2018). Between 29 and 54 different vessels have operated in the fishery annually from 2010 to 2017 with a total of 82 different vessels having operated over the same time period.

This is a year-round fishery but effort and landings typically peak from September to November (Innes et al., 2007; ICES, 2015). In the past, the fishery has been a significant employer in the ports of Boston and King's Lynn (Innes et al., 2007). Beam trawling for shrimp is one of the main fishing activities occurring within The Wash and North Norfolk Coast SAC. Aviat et al. (2011) reported that approximately 500 vessels and 1,000 fishers are involved in the North Sea brown shrimp fishery (i.e. across the whole of the North Sea brown shrimp fishing area, of which The Wash is a small part). Currently, approximately 37,000 tonnes of shrimp are fished per annum by Dutch (53%), German (33%), Danish (8%), UK (2%), Belgian (2%) and French (1%), including the Eastern English Channel vessels (Seafish, 2017). Reflecting on these percentages, The Wash and North Norfolk Coast brown shrimp fishery is of huge importance on a local level, however, it is not nearly as extensive or intensive as the continental fishery.

Traditionally, two species were targeted in The Wash and North Norfolk Coast area by this activity; brown shrimp (*Crangon* spp.) and pink shrimp (*Pandalus montagui*), with the pink shrimp fishery being the more important fishery for more than 150 years (MES, 2012). Currently there is no fishing for pink shrimp due to market conditions, competing potting activity and restrictions on towed demersal gear in the available grounds. The pink shrimp fishery used to operate in deeper waters of The Wash and its approaches, and is often associated with biogenic reef created by *Sabellaria spinulosa* colonies.

### Rationale for intervention

IFCAs have duties to ensure that fish stocks are exploited in a sustainable manner, and that any impacts from that exploitation on designated features in the marine environment are reduced or suitably mitigated, by implementing appropriate management measures (e.g. this byelaw). Implementing this byelaw will enable Eastern IFCA to ensure that fishing activities are conducted in a sustainable manner and that the marine environment is suitably protected.

Fishing activities can potentially cause negative outcomes as a result of 'market failures'. These failures can be described as:

1. Public goods and services – a number of goods and services provided by the marine environment such as biological diversity are 'public goods' (no-one can be excluded from benefiting from them, but use of the goods does not diminish the goods being available to others). The characteristics of public goods, being available to all but belonging to no-one, mean that individuals do not necessarily have an incentive to voluntarily ensure the continued existence of these goods which can lead to under-protection/provision.

2. Negative externalities – negative externalities occur when the cost of damage to the marine environment is not fully borne by the users causing the damage. In many cases no monetary value is attached to the goods and services provided by the marine environment and this can lead to more damage occurring than would occur if the users had to pay the price of damage. Even for those marine harvestable goods that are traded (such as wild fish), market prices often do not reflect the full economic cost of the exploitation or of any damage caused to the environment by that exploitation.
3. Common goods - a number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' (no-one can be excluded from benefiting from those goods however consumption of the goods does diminish that available to others). The characteristics of common goods (being available but belonging to no-one, and of a diminishing quantity), mean that individuals do not necessarily have an individual economic incentive to ensure the long-term existence of these goods which can lead, in fisheries terms, to potential overfishing. Furthermore, it is in the interest of each individual to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an inefficient amount of effort and unsustainable exploitation.

IFCA byelaws aim to redress these sources of market failure in the marine environment through the following ways:

- Management measures to conserve designated features of MPAs will ensure negative externalities are reduced or suitably mitigated.
- Management measures will support continued existence of public goods in the marine environment by conserving the range of biodiversity in the sea of the Eastern IFCDistrict.
- Management measures will also support continued existence of common goods in the marine environment by ensuring the long-term sustainability of shrimp stocks in the Eastern IFCDistrict.

#### Dialogue with stakeholders.

Eastern IFCA has undertaken extensive engagement with shrimp fishers over the last three years in relation to the development of shrimp management measures. Consultation with the industry has been reported to Members previously at the Regulation and Compliance Sub-Committee meeting of December 2016 (<http://www.eastern-ifca.gov.uk/wp-content/uploads/2016/02/full-set.pdf>) in addition to reports from meetings and workshops which have been published on the Eastern IFCA website ([www.eastern-ifca.gov.uk](http://www.eastern-ifca.gov.uk)).

Officers have continued to engage with the industry in the intervening period and have undertaken additional Shrimp Industry Workshops which have been reported on the Eastern IFCA website (<http://www.eastern-ifca.gov.uk/wpcontent/uploads/2016/09/Shrimp-Workshop-Report.pdf>) and held a written informal consultation with the industry.

A summary of the outputs of the informal dialogue is set out here:

[http://www.eastern-ifca.gov.uk/wp-content/uploads/2018/07/2018\\_07\\_23\\_how\\_we\\_listened.pdf](http://www.eastern-ifca.gov.uk/wp-content/uploads/2018/07/2018_07_23_how_we_listened.pdf)

## Policy objective

The policy objectives are as follows:

1. To have the required protective effect on MPA within the Eastern IFC District whilst minimising the economic impact on the shrimp fishing industry;
2. To ensure long-term, sustainable shrimp fisheries which are prosecuted in line with maximum sustainable yield;
3. To collect such evidence as is required to inform effective management of the shrimp fishery.

The intended effects of the measures are as follows:

1. To require shrimp fishers to obtain a shrimp permit in order to prosecute shrimp fisheries;
2. To limit the amount of shrimp fishing activity within the Wash and North Norfolk Coast SAC such that the activity does not have an adverse effect on site integrity;
3. To introduce, vary or revoke technical gear requirements and other permit conditions through flexible permit conditions to prevent adverse effects on site integrity within MPA;
4. To introduce, vary or revoke eligibility criteria for the issuing of permits and to set limitations on the number of permits which may be issued to manage effort within the fisheries;
5. To require all shrimp fishers to provide the required fisheries data, including through the use of I-VMS, to enhance evidenced based management of shrimp fisheries;
6. To enable Eastern IFCA to implement measures which prevent shrimp fishing activity from having an adverse effect on stock sustainability and site integrity in MPA throughout the District through a proportionate process;
7. To enable Eastern IFCA to temporarily suspend the issuing of permits or close the shrimp fishery within the Wash and North Norfolk Coast SAC if there is a risk to fisheries sustainability or site integrity;
8. To partially recover costs associated with shrimp management measures.

With regards to the associated permit conditions

9. To limit the use of 'try-nets' (small trawls used by fishers to test for the presence or absence of shrimp during a trawl track without having to lift the main gear) as follows:
  - a. one per vessel;
  - b. must be hand-hauled;
  - c. must weigh no more than 20kg;

- d. must be no longer than 500mm.
- 10. To prohibit the use of 'tickler chains' or any other attachment which penetrates the seabed;
- 11. To prohibit the use of shoes, skids or guides which are not 'flat' across their entire length.

With regards to eligibility criteria;

- 12. To make any person who has received two financial administrative penalties for or been convicted of one relevant offence within 12 months of application, ineligible to be named on a shrimp permit.

### Description of options considered (including status-quo);

#### *Option 0 (do nothing) – Status Quo*

Eastern IFCA has assessed the impacts of shrimp fishing on the Wash and North Norfolk Coast MPA. This assessment has concluded that adverse impacts on site integrity cannot be ruled out in relation to some habitats. Mitigation to protect these areas is proposed in the form of spatial closures (to bottom-towed-gear) and this is considered separately in the Marine Protected Areas Byelaw 2018.

The 'do nothing' option therefore relates only to the fishing outside of these spatial closures.

The assessment also concluded that the current levels (last ten years) of shrimp fishing activity are not having an impact on site integrity outside of the proposed spatial closures. As such, the 'do nothing' option would still meet the conservation objectives of the site. However, the information used in the assessment is limited in its accuracy and scope and may have underestimated the levels of fishing activity during this period. Most importantly, the 'do nothing' option would enable fishers to change fishing behaviours (for example, increases in effort, fishing gear modifications) which may lead to fishing activity having an impact on the site.

Furthermore, this would not enable Eastern IFCA to improve data collection to better inform management decisions and assessments of impacts on MPA and fisheries sustainability.

The 'do nothing' option is not considered to adequately reduce the risk of impacts from shrimp fishing within MPAs and is therefore not considered a viable option.

#### *Option 1 (preferred option) – Shrimp Permit Byelaw 2018*

Eastern IFCA intends to introduce spatial closures within the Wash and North Norfolk Coast SAC for the protection of sub-tidal mixed sediments and subtidal mud sub-features of the SAC. Fishing activity outside of these closures (within the site) is considered not to be having an adverse effect on site integrity

based on the level of effort and fishing practices over the last ten years. So as to ensure that fishing activity and behaviours do not change with the effect of an adverse effect on site integrity, Eastern IFCA proposes to implement a permit scheme so as to dynamically manage the fishery in line with the conservation objectives of the MPA and sustainability of fisheries. Without a mechanism to control effort in particular, shrimp fishing in The Wash and North Norfolk Coast poses a risk to site integrity.

Outside of the Wash and North Norfolk Coast MPA, a permit scheme will enable Eastern IFCA to redress any potential displacement resultant of measures in the Wash and North Norfolk Coast MPA. A permit scheme will also enable Eastern IFCA to manage these fisheries as required and in accordance with monitoring and control plans (which require the monitoring of activity levels) so as to ensure no adverse impacts on site integrity within other MPAs.

Further information (particularly through the implementation of electronic monitoring devices) will aid decision making to enable Eastern IFCA to meet conservation objectives of MPAs and minimise the impact on the fishing industry.

#### *Option 2 – Closure of Wash and North Norfolk Coast to shrimp fishing*

Closure of the site would meet the conservation objectives of the site but have disproportionate impacts on the industry and effectively end the UK's contribution to the markets in relation to brown shrimp, with some 90% of the UK's catch coming from The Wash.

### Monetised and non-monetised costs and benefits

#### **Option 0 – Do nothing option**

There are no monetised costs associated with the 'do nothing' option.

The key non-monetised costs relate to the impacts on ecosystem functioning resultant of increases in fishing effort and changes in fishing behaviours (e.g. use of more damaging fishing gear). Impacts on ecosystem function is likely to lead to impacts on the sustainability of the fishery and its productivity.

In addition, the 'do nothing' option is not in keeping with the requirements of the Habitats Directive and as such may lead to infraction on the UK.

#### **Option 1 – Shrimp Permit Byelaw 2018**

The key monetised costs associated with the fishery relate to the requirement for vessels to have electronic monitoring devices and the permit fee as set out below.

There is also a transitional cost associated with the requirement for all vessels to use separator trawls or sorting grids on shrimp fishing gear.

#### **Key monetised costs**

### Electronic monitoring devices

**Inshore Vessel Monitoring Systems (I-VMS) and Vessel Monitoring System + (VMS+) installation costs** – Eastern IFCA intends to implement the requirement to install I-VMS alongside a funding bid to cover the cost of I-VMS installation. It is intended that the cost of requiring additional units will be mitigated entirely through a combination of EMFF funding and Eastern IFCA funding support. The likely cost of installation of I-VMS devices is circa £1300 per vessel. Estimates for total cost are therefore proportionate to the total number of vessels who will require the device and installation. On an annual basis, the number of vessels operating in the fishery ranges from 29 to 54 over the period 2010 to 2017 (inclusive). The total number of different vessels operating during that period was 80. However, vessels with a length of 12m and over are already required to have a VMS+ device. As such, out of the 80 vessels which have operated in the fishery over the period 2010 to 2017 (inclusive) and which have a valid fishing licence and are less than 12m, 33 vessels remain and it is on this the ‘best estimate’ is obtained. Therefore, the ‘low’, ‘estimate is £37,700 (based on 29 vessels), the ‘high’ estimate is £104,000 (based on 80 vessels) and the ‘best’ estimate is £42,900 (based on 44 vessels – average number of vessels).

Vessels over 12m in length will not require installation of electronic monitoring devices under this regulation as VMS+ devices are already required by the MMO.

**iVMS and VMS+ reporting costs** – The cost of reporting via iVMS is between £114 and £168 per year at a reporting rate of once in three minutes. This cost extends to vessels operating VMS+.

The differences in the estimated costs for this requirement are primarily a reflection of the number of vessels operating within the shrimp fishery and level of cost associated with the reporting.

The low estimate takes into account the lowest number of vessel which have landed shrimp within the Eastern IFC District in any given year since 2010 (29 vessels) and the lowest potential cost (being £1140 per annum). The low estimate is therefore £3,306 per annum.

The high estimate takes into account the higher potential reporting cost and the total number of different vessels which have landed shrimp within Eastern IFCA’s district since 2010 (80 vessels). The high estimate is therefore £13,440.

The best estimate takes into account the mean number of vessels fishing for shrimp per year since 2010 (which is 44 vessels) and the mean potential cost of reporting (i.e. £142). The ‘best’ estimate is therefore £6,248 per annum.

The ‘best’ estimate is likely to be an overestimate given that the majority of fishers will not operate within the shrimp fishery all year and other fisheries may have requirements to use electronic monitoring devices (for example, it is proposed that Wash Fishery order 1992 licence holders will require iVMS to

operate within that fishery). As such, the annual cost for reporting (i.e. £114 to 168) is likely to contribute to more fisheries than the shrimp fishery only. In addition, Defra are currently consulting on a national requirement for the implementation of electronic monitoring devices on all vessels under 12m.

#### Costs associated with permit fees

The proposed fee for a category one shrimp permit is £100 per annum. This cost reflects cost recovery for administering permits and data entry (£44) which is set out in Table 1 below and an additional contribution to research, monitoring and compliance undertaken with regards to the measures (£56). The fee for a category two permit is £44. It should be noted that whilst fishers can obtain both permits on a single vessel, the associated cost will only be £100 (i.e. fishers only pay the permit fee once).

*Table 1. Costs associated with the administration of a shrimp permit scheme per permit issued per year.*

<b>Unit</b>	<b>Unit cost</b>	<b>Number of units</b>	<b>Total cost</b>
Return book	£6.50	1	£6.50
pre-paid envelope	£0.60	14	£8.40
Admin Officer time (including on-costs)	£11.54	2.5	£28.85
		<b>Total</b>	<b>£43.75</b>

The estimated costs for the permit fees are a reflection of the different number of vessels that operate under a permit and as set out in the calculations for electronic monitoring costs above. It only considers Category One permits (i.e. the higher cost permit) as the vast majority of shrimp fishers are thought to fish within the Wash and North Norfolk Coast SAC at some point during the year.

Therefore, the low cost is estimated as £2,900 per annum, the high cost is estimated as £8,000 per annum and the best estimate is estimated as £4,400 per annum).

#### Costs to Eastern IFCA

Eastern IFCA will incur costs associated with administering a permit scheme including through processing applications and inputting data from return forms. These are set out in Table 1 above.

In addition, Eastern IFCA intends to undertake monitoring to support the conclusions of the Habitat Regulation Assessment and ensure that adverse effects are not occurring within the site open to fishing. The associated cost cannot be monetised as ultimately the level of monitoring is likely to change annually. These have been included in the non-monetised costs.

Additional compliance activities will be required in addition to education and engagement. The cost of these are estimated to be £7,176 based on six additional

sea patrols and 4 additional shore patrols. This is likely to be an underestimate with regards to the initial implementation of the measures during which time the risk of non-compliance is higher. In addition, the number of patrols will increase if risk associated with the fishery increases as directed through the Tactical Coordinating Group.

It is anticipated that the permit fee will partially recover these costs. Therefore, including the cost recovery from the permits, the estimated monetised cost to the Authority is £2,739 (based on the 'best' estimate for cost recovery via permit fees). It should be noted however that there are likely to be significant non-monetised costs (which are set out in following section) which are not taken into account here.

Table 2. showing the breakdown of costs associated with additional compliance needs resultant of introducing a new byelaw.

**Costs associated with 1 sea patrol**

	employment		
Crew:-	cost	working days	cost per std 7.4 hour day
Skipper	1 33,760.00	225	150.04
Crew:-	3 29,410.00	227	388.68
Total cost			<hr/> 538.72
<b>"on costs"</b>			
Pension		21.50%	115.83
E'ers NI	12,156.97	226	53.79
			<hr/> 708.34
	annual cost	days at sea	
<u>Operation cost of vessel</u>		70	
Maintenance/refit	15,000.00		214.29
Insurance	3,000.00		42.86
			257.14
Total operation cost per day/trip			965.48
<b>6 additional sea patrols</b>			<b>5792.898</b>

**Costs associated with 1 shore patrol**

	employment		
Crew:-	cost	working days	cost per std 7.4 hour day

## **Non-monetised costs**

### Provision of catch data

Fishers will be required to return catch data as required by Eastern IFCA in accordance with the proposed byelaw. There will be a minimal cost associated with completing and returning these forms in terms of lost time.

### Gear modifications – ‘shoes’ and skids

There is a marginal cost associated with fishers having to ensure that shrimp fishing gear is compliant with permit condition 5; that the ‘shoes’ on shrimp gear must be ‘flat across its entire length’. This may require some fishers to add additional plates to the bottom of shoes which have ‘heels’ (the presence of which acts as a ‘wear plate’). Informal dialogue with fishers has indicated that the associated cost will be minimal, and fishers are generally not concerned about this measure.

### Changes in fishing behaviours

One of the main concerns raised in the informal consultation relates to additional fishing effort from vessels which have not previously prosecuted the fishery. In particular, that a permit scheme will drive a behaviour for fishers to obtain a permit so as to get ‘track record’ for the fishery in the event that Eastern IFCA limit the number of permits. This would be on the perception that this will ensure them a permit in the future.

The proposed byelaw includes provision for Eastern IFCA to limit the number of permit and the fishing effort per vessel however, Eastern IFCA does not intend to implement this system until further work has been undertaken. The proposed byelaw would enable Eastern IFCA to implement such restrictions in accordance with the process set out in the schedule of the byelaw which includes consultation with impacted stakeholders and the production of an Impact Assessment.

The proposed byelaw also includes a provision for Eastern IFCA to close the fishery for periods of time not exceeding the permit year (i.e. until the following 1<sup>st</sup> August) for the protection of MPA or fisheries sustainability. As such, if fishing effort did increase significantly, Eastern IFCA may close the fishery with impacts on the industry. Eastern IFCA may close the fishery where there is an enhanced risk to the sustainability of stocks or to site integrity of the Wash and North Norfolk Coast Special Area of Conservation. Permit holders will be notified in writing of such a closure.

It should be noted that if fishing activity remains within the levels identified over the past ten years, there would not be a need to close the fishery. Therefore, there is a risk that the fisher could be closed if ‘new’ fishers enter the fishery and pose a risk to the sustainability or site integrity. . In the case of site integrity, that is likely to be determined as fishing effort at levels in excess of what has been the case over the last ten years.

The impacts of having to close the fishery 'mid-season' is hypothetical because current levels of fishing activity are not thought to be having an impact on the site. In addition, the timing of the 'permit year' (i.e. August to August) reduces the likelihood of such closures by 'restarting the clock' at the point effort usually starts to increase.

However, the potential scale of impact on the industry can be estimated as follows:

Table 2. impact as a percentage of total landed weight of shrimp depending on timing of fishery closure (MMO data 2010 to 2017 inclusive)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All vessels	20.9	17.2	13.0	8.7	5.4	2.9	0.0	93.0	78.5	58.7	39.7	29.1
Vessels landing shrimp 10 or more months of the year	22.0	18.5	14.5	9.8	5.9	3.2	0.0	92.8	77.6	57.8	39.2	29.6

Table 2. impact as a percentage of total value of catch depending on timing of fishery closure (MMO data 2010 to 2017 inclusive)												
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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All vessels	24.1	20.0	14.9	10.0	6.1	3.0	0.0	93.2	79.7	61.6	43.1	32.1
Vessels landing shrimp 10 or more months of the year	25.0	21.2	16.5	11.2	6.8	3.4	0.0	93.0	78.5	60.1	42.0	32.2

Tables 1 and 2 show the percentage of landed weight (table 1) and value of catch (table 2) cumulatively over the 'permit period' i.e. August to August. It shows the percentage of catch / value remaining during a normal 'permit year' and as such is an estimate of the scale of impact on fishers. For example, if the fishery closed during January, vessels would lose in the region of 24 to 25% of their total earnings from shrimp during that year.

While this provides some insight into the potential impact, it is worth noting that, if the fishery were to close early, given that the amount of effort which can be permitted is that which has taken place over the last 10 years, the industry wide impacts would be limited as the same amount of shrimp will have been caught but over a shorter period.

Impacts resultant from 'mid-season' closures will be primarily on vessels / fishers who would have relied on the shrimp fishery during the months it is closed. The level of impact on such fishers cannot be determined with the available data as cockle landings (which will make up a significant proportion of annual value of catch for many vessels) are not accurately recorded in sales notes and as such, not accurately reported in landing statistics making a comparison difficult.

The greatest impact would be felt by vessels whom do not have a Wash Fishery Order Licence or other target species. Impacts are however mitigated by the ability to fish outside of the Wash and North Norfolk Coast (e.g. the Lincolnshire coast which is anecdotally known to support a significant proportion of the effort from the larger, processor owned vessels).

Finally, there will also be a wider impact on loss of earnings from processor factories which rely heavily or solely on the processing of shrimps for certain periods of the year. These cannot be monetised with the available data however, it can be assumed that for the individuals who work for these factories the impacts will be significant loss of earnings.

The likelihood of this occurring depends on the likelihood of 'new' vessels entering the fishery. Eastern IFCA has actively discouraged any 'new' vessels fishing for shrimp solely for the purpose of obtaining track-record when a permitting scheme is introduced. There is however the potential for new vessels to enter the fishery for this reason.

Ultimately, if the status quo is maintained then a 'mid-season' closure is unlikely to occur. Balancing the various needs of different business models will be difficult and it should be noted that there is a counter view that limiting the number of permits will also have a detrimental impact and may lead to the loss of fishing opportunity (e.g. through latent capacity, inhibition of new entrants etc.) and it is considered important to establish the best method for achieving the required effect with further consultation. Eastern IFCA will seek to engage with the industry and develop proposals for the administration of permits within a reasonable timeframe so as to minimise potential impact in any case.

### Costs to Eastern IFCA

Eastern IFCA has committed significant resource to shrimp management measures development in its five year business plan and a significant proportion of resource has been allocated to shrimp management research projects including continued monitoring of the sites condition, development of fisheries sustainability measures and extensive consultation with stakeholders. It is anticipated that these costs are offset slightly by the permit fee.

### Monetised and non-monetised benefits

Without mitigation, the fishery has been assessed as potentially impacting the Wash and North Norfolk Coast SAC and as such, cannot proceed without mitigation. It could be argued therefore that the overriding benefit of these measures is the continuation of this fishery and the monetary benefit of these measures can be estimated as the total worth of the fishery over the coming years which is, as estimated from the average over the period 2010 to 2017 (inclusive) is £1,662,408 per year. That said, it is also acknowledged that an unknown proportion of that value comes from outside of the Wash and North Norfolk Coast SAC and therefore, the actual monetary value if this benefit cannot be estimated.

Protection of the sub-features identified as being at risk from shrimp fishing activity will have a positive effect on the overall ecological functioning of the MPA and potentially improve fishery productivity, including in relation to species other than shrimps. These benefits cannot be monetised with the currently available evidence. These benefits potentially include:

- Increased biodiversity;
- Increase productivity;
- Increase resilience of the habitats, species and ecological functioning (e.g. food webs) to climate change and impacts;
- Increase in non-use benefits to society (an understanding that spaces are left alone for nature)
- Increase in abundance of brood stock and spawning inside closed areas
- Spill-over into open fishing grounds.
- Increased CPUE in areas open to fishing around closed areas, that will reduce the costs (fuel) associated with fishing harder and for longer in open areas.

In addition, there is likely to be a positive impact on the shrimp fishery provided that ecological function of the site is furthered which may lead to better returns for fishers. Again, it is not possible to determine the scale of this potential benefit and as such, it cannot be accurately monetised.

## **Option 2 – Total closure of Wash and North Norfolk Coast MPA to bottom towed fishing gear**

### **Key monetised costs**

The pink and brown shrimp fisheries in the Eastern IFC District are worth between £584,525 and £2,668,788 per annum. The vast majority of these fisheries are thought to occur within the Wash and North Norfolk Coast although other notable areas are off the Lincolnshire coast and north of the MPA.

Eastern IFCA has undertaken an assessment of the impacts of shrimp fishing within the MPA and found that some habitats are very sensitive to shrimp fishing activity and require closure (to all bottom-towed-gear). Other habitats are found to be less sensitive although it is thought that fishing activity could impact these habitats if activity increased.

The potential impact of this option is likely to be underestimated by the landed value of catch. The factories which process the shrimp caught (both of which are based in King's Lynn) rely to a large degree on the shrimp market. The market price for the processed shrimp is likely to be much higher than the landed value and which includes a significant amount of export to foreign markets (primarily Holland). There are a significant number of tertiary jobs associated with this fishery and these processing factories (i.e. engineers, factory workers, delivery drivers).

Only a minor increase in fishing effort is anticipated as a result of displacement from the closed areas and fishing at the current levels is assessed to be in keeping with the conservation objectives of the site. Closure of the whole site would meet the conservation objectives however, it is likely to cause a large impact on stakeholders with no additional benefit to site integrity as compared to option 1. As such, it is considered disproportionate to close the entire site to shrimp fishing activity as the associated risks to site integrity can be adequately mitigated through effort limitations as required.

### Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

This assessment has used the following information:

- Fisheries / catch returns data supplied by the shrimp fishing industry to Eastern IFCA and the Marine Management Organisation
- Feedback from extensive informal consultation with the shrimp fishing industry;
- Expert knowledge from SeaFish and *C.I.V. Den Oever U.A* (net manufacturer)
- Information provided by the iVMS project board and suppliers

There is a notable limitation to Eastern IFCA catch returns for the shrimp fishing industry as there has been non-compliance at times with the requirement to

provide this information.

Landed weights and values for shrimp landings primarily rely on Marine Management Organisation data for the years 2010 to 2016. Data for 2017 is still provisional and as such has not been included.

The scale of the potential impacts with regards to the proposed measures are small in comparison to the worth of the fishery to individuals and the industry as a whole. Therefore, the level of analysis is considered appropriate.

Potential impacts of fisheries closures or effort limitations which are not included in the current proposal are likely to have a greater degree of impact, including unintended. These impacts will be considered in an impact assessment and through consultation with the fishing industry as per the process set out in Schedule 1 of the proposed byelaw.

### Risks and assumptions

#### *Cost of reporting using iVMS and VMS+*

Fishers will be required to report certain information using an electronic monitoring device. Vessels of less than 12 m will be required to obtain and use an iVMS device. In the case of vessel which are 12 m or above, this will be the VMS+ device which they are required to have under MMO licence conditions and European Commission legislation.

Presently these devices make reports at a much lower rate (two hours) than will be required by this byelaw and as such there will be an associated cost.

Fishers have raised a concern that the suppliers of the electronic monitoring devices will increase costs of reporting at some point in the future. iVMS units must be type approved to be used but any company can get a device type approved. Under this model, market forces will mitigate against price increases as different companies vie for business. VMS+ however operate under a sole supplier model i.e. there is only one supplier permitted to provide the device and service for reporting. As such, there is no mitigation against this supplier increasing costs significantly in the future.

#### *Changes in behaviour*

Fishers have raised concerns about a permitting scheme changing the behaviour of fishers. In particular that the shrimp fishery will quickly become over-prescribed as fishers attempt to build 'track-record' to mitigate not being able to fish in the future if Eastern IFCA implemented a limitation.

#### *Further vessels which operate in the fishery or have operated in the past*

Resultant of the formal consultation, Eastern iFCA has become aware of some smaller scales shrimp fishers who were not previously known. Primarily, these relate to fishers who, may be commercial fishers but who either catch shrimp in so small a quantity that they are not captured by MMO landings figures, use shrimp only as bait for longlining or have not fished since before 2010 (i.e. the first year

that data is available for shrimp fishing). It is therefore recognised that the requirement for a shrimp permit may have additional impacts on these fishers, but which cannot be captured with currently available evidence. That said, impacts on fishers who have not fished since 2010 (several such fishers suggested that they had not fished for seventeen years) would not realistically be taken into account and small-scale shrimp fishers will still be able to fish but will have to obtain a permit and fish within the constraints of the byelaw. Given the nominal permit fee proposed and the funding available to obtain I-VMS, the proposals are not considered likely to be of a significant impact to these fishers.

#### Summary and preferred option with description of implementation plan

The preferred option is Option 1 – introduction of the Shrimp permit Byelaw 2018. This will require fishers to obtain a permit to fish for shrimp in Eastern IFCA's District. A specific permit will be required to fish within the Wash and north Norfolk Coast SAC so as to enable Eastern IFCA to implement permit conditions and/or permit limitations for the protection of the site if required. This dynamic approach to managing the fishery is required given the dynamic nature of the fishery.

Implementation of the byelaw will include engagement with the industry to raise awareness of the requirements under the byelaw and permit conditions.

## Annex A: Policy and Planning

Which marine plan area is the MPA and management measure in?

East Inshore Marine Plan

Have you assessed whether the decision on this MPA management measure is in accordance with the Marine Policy Statement and any relevant marine plan?

- Yes

If so, please give details of the assessments completed:

Marine Plan Policy	Policy Text	Policy screened in or out from assessment	Assessment of plan policy
<b>Policy AGG1</b>	Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised unless there are exceptional circumstances.	×	Does not apply.
<b>Policy AGG2</b>	Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate should not be supported unless it is demonstrated that the other development or activity is compatible with aggregate extraction or there are exceptional circumstances.	×	Does not apply.
<b>Policy AGG3</b>	Within defined areas of high potential aggregate resource, proposals should demonstrate in order of preference: a) that they will not, prevent aggregate extraction b) how, if there are adverse impacts on aggregate extraction, they will minimise these	×	Does not apply.

	<p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with the application if it is not possible to minimise or mitigate the adverse impacts</p>		
<p><b>Policy AQ1</b></p>	<p>Within sustainable aquaculture development sites (identified through research), proposals should demonstrate in order of preference:</p> <p>a) that they will avoid adverse impacts on future aquaculture development by altering the sea bed or water column in ways which would cause adverse impacts to aquaculture productivity or potential</p> <p>b) how, if there are adverse impacts on aquaculture development, they can be minimised</p> <p>c) how, if the adverse impacts cannot be minimised they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	

<p><b>Policy BIO1</b></p>	<p>Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial).</p>	<p>✓</p>	<p>Eastern IFCA undertook a Habitats Regulations Assessment with regards to the potential impacts of shrimp fishing on site integrity within the Wash and North Norfolk Coast SAC. The assessment concluded that shrimp fishing (outside of the most sensitive areas which are proposed to be closed under the Marine Protected Areas Byelaw 2018) is not having an adverse effect on the site. The proposed byelaw enables Eastern IFCA to manage the fishery so as to ensure effort levels and fishing behaviours do not change to the extent that the site is impacted.</p>
<p><b>Policy BIO2</b></p>	<p>Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.</p>	<p>×</p>	
<p><b>Policy CAB1</b></p>	<p>Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.</p>	<p>×</p>	<p>Does not apply.</p>

<p><b>Policy CC1</b></p>	<p>Proposals should take account of:</p> <ul style="list-style-type: none"> <li>• how they may be impacted upon by, and respond to, climate change over their lifetime and</li> <li>• how they may impact upon any climate change adaptation measures elsewhere during their lifetime</li> </ul> <p>Where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to how the proposal will reduce such impacts.</p>	<p>✓</p>	<p>Managing the shrimp fishery will promote a sustainable fishery and healthy environments which are more resilient to natural phenomenon and events related to climate change.</p>
<p><b>Policy CC2</b></p>	<p>Proposals for development should minimise emissions of greenhouse gases as far as is appropriate. Mitigation measures will also be encouraged where emissions remain following minimising steps. Consideration should also be given to emissions from other activities or users affected by the proposal.</p>	<p>✓</p>	<p>The byelaw will not have an impact on emissions levels.</p>
<p><b>Policy CCS1</b></p>	<p>Within defined areas of potential carbon dioxide storage,(mapped in figure 17)proposals should demonstrate in order of preference:</p> <ol style="list-style-type: none"> <li>a) that they will not prevent carbon dioxide storage</li> <li>b) how, if there are adverse impacts on carbon dioxide storage, they will minimise them</li> <li>c) how, if the adverse impacts cannot be minimised, they will be mitigated</li> <li>d) the case for proceeding</li> </ol>	<p>×</p>	<p>Does not apply.</p>

	with the proposal if it is not possible to minimise or mitigate the adverse impacts		
<b>Policy CCS2</b>	Carbon Capture and Storage proposals should demonstrate that consideration has been given to the re-use of existing oil and gas infrastructure rather than the installation of new infrastructure (either in depleted fields or in active fields via enhanced hydrocarbon recovery).	×	Does not apply.
<b>Policy DD1</b>	Proposals within or adjacent to licensed dredging and disposal areas should demonstrate, in order of preference a) that they will not adversely impact dredging and disposal activities b) how, if there are adverse impacts on dredging and disposal, they will minimise these c) how, if the adverse impacts cannot be minimised they will be mitigated d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts	×	Does not apply
<b>Policy DEF1</b>	Proposals in or affecting Ministry of Defence Danger and Exercise Areas should not be authorised without	×	Does not apply

	agreement from the Ministry of Defence.		
<b>Policy EC1</b>	Proposals that provide economic productivity benefits which are additional to Gross Value Added currently generated by existing activities should be supported.	✓	The shrimp fishery within the East Inshore Marine Plan Area are of national importance representing circa 90% of UK shrimp landings. The management of the fishery will allow for a longer-term, sustainable fishery to be continued.
<b>Policy EC2</b>	Proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas.	✓	At least two processor plants (which process shellfish) are known to process shrimp catches from across the district and further – enabling a productive shrimp fishery will support jobs in addition to fishing activity (e.g. factory cleaners, admin etc.).
<b>Policy EC3</b>	Proposals that will help the East marine plan areas to contribute to offshore wind energy generation should be supported.	×	Does not apply.
<b>Policy ECO1</b>	Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.	✓	The management of the shrimp fishery will support a healthy marine habitat which in turn, should have a benefit on the biodiversity of the wider ecosystem.
<b>Policy ECO2</b>	The risk of release of hazardous substances as a secondary effect due to any increased collision risk should be taken account of	✓	No additional collision risk identified as a result of the proposed byelaw.

	in proposals that require an authorisation.		
<b>Policy FISH1</b>	<p>Within areas of fishing activity, proposals should demonstrate in order of preference:</p> <p>a) that they will not prevent fishing activities on, or access to, fishing grounds</p> <p>b) how, if there are adverse impacts on the ability to undertake fishing activities or access to fishing grounds, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with their proposal if it is not possible to minimise or mitigate the adverse impacts</p>	✓	<p>The purpose of the byelaw is to implement a permit scheme to enable Eastern IFCA to manage shrimp fishing activity such that it does not have an impact on site integrity within the Wash and North Norfolk Coast SAC. It is also intended that the byelaw is used to manage the fishery from a sustainability perspective to ensure the long-term sustainability of the fishery. Ultimately, protection of the habitats on which shrimp rely and the fishery from over-exploitation will have a long-term beneficial impact on shrimp fishing opportunities.</p>
<b>Policy FISH2</b>	<p>Proposals should demonstrate, in order of preference:</p> <p>a) that they will not have an adverse impact upon spawning and nursery areas and any associated habitat</p> <p>b) how, if there are adverse impacts upon the spawning and nursery areas and any associated habitat, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised they will be mitigated</p> <p>d) the case for proceeding</p>	✓	<p>The intention of the proposed byelaw is to protect important habitats from the impacts of shrimp fishing.</p>

	with their proposals if it is not possible to minimise or mitigate the adverse impacts		
<b>Policy GOV1</b>	Appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa.	×	Does not apply.
<b>Policy GOV2</b>	Opportunities for co-existence should be maximised wherever possible.	×	Does not apply.
<b>Policy GOV3</b>	Proposals should demonstrate in order of preference: a) that they will avoid displacement of other existing or authorised (but yet to be implemented) activities b) how, if there are adverse impacts resulting in displacement by the proposal, they will minimise them c) how, if the adverse impacts resulting in displacement by the proposal, cannot be minimised, they will be mitigated against or d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts of displacement	✓	No displacement anticipated.

<p><b>Policy MPA1</b></p>	<p>Any impacts on the overall Marine Protected Area network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.</p>	<p>✓</p>	<p>The intention of the byelaw is to ensure impacts on marine protected areas are mitigated and that Eastern IFCA has a mechanism to ensure future changes to fishing behaviour can also be mitigated through the introduction of flexible management measures.</p>
<p><b>Policy OG1</b></p>	<p>Proposals within areas with existing oil and gas production should not be authorised except where compatibility with oil and gas production and infrastructure can be satisfactorily demonstrated.</p>	<p>X</p>	<p>Does not apply.</p>
<p><b>Policy OG2</b></p>	<p>Proposals for new oil and gas activity should be supported over proposals for other development.</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy PS1</b></p>	<p>Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised in International Maritime Organization designated routes.</p>	<p>×</p>	<p>Does not apply.</p>

<p><b>Policy PS2</b></p>	<p>Proposals that require static sea surface infrastructure that encroaches upon important navigation routes (see figure 18) should not be authorised unless there are exceptional circumstances. Proposals should:</p> <ul style="list-style-type: none"> <li>a) be compatible with the need to maintain space for safe navigation, avoiding adverse economic impact</li> <li>b) anticipate and provide for future safe navigational requirements where evidence and/or stakeholder input allows and</li> <li>c) account for impacts upon navigation in-combination with other existing and proposed activities</li> </ul>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy PS3</b></p>	<p>Proposals should demonstrate, in order of preference:</p> <ul style="list-style-type: none"> <li>a) that they will not interfere with current activity and future opportunity for expansion of ports and harbours</li> <li>b) how, if the proposal may interfere with current activity and future opportunities for expansion, they will minimise this</li> <li>c) how, if the interference cannot be minimised, it will be mitigated</li> <li>d) the case for proceeding if it is not possible to minimise or mitigate the interference</li> </ul>	<p>X</p>	<p>Does not apply.</p>

<p><b>Policy SOC1</b></p>	<p>Proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported.</p>	<p>X</p>	<p>Does not apply.</p>
<p><b>Policy SOC2</b></p>	<p>Proposals that may affect heritage assets should demonstrate, in order of preference:  a) that they will not compromise or harm elements which contribute to the significance of the heritage asset  b) how, if there is compromise or harm to a heritage asset, this will be minimised  c) how, where compromise or harm to a heritage asset cannot be minimised it will be mitigated against or  d) the public benefits for proceeding with the proposal if it is not possible to minimise or mitigate compromise or harm to the heritage asset</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy SOC3</b></p>	<p>Proposals that may affect the terrestrial and marine character of an area should demonstrate, in order of preference:  a) that they will not adversely impact the terrestrial and marine character of an area  b) how, if there are adverse impacts on the terrestrial and marine character of an area, they will minimise them  c) how, where these adverse impacts on the terrestrial and marine character of an area</p>	<p>×</p>	<p>Does not apply.</p>

	cannot be minimised they will be mitigated against d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts		
<b>Policy TIDE1</b>	In defined areas of identified tidal stream resource (see figure 16), proposals should demonstrate, in order of preference: a) that they will not compromise potential future development of a tidal stream project b) how, if there are any adverse impacts on potential tidal stream deployment, they will minimise them c) how, if the adverse impacts cannot be minimised, they will be mitigated d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts	×	Does not apply.
<b>Policy TR1</b>	Proposals for development should demonstrate that during construction and operation, in order of preference: a) they will not adversely impact tourism and recreation activities b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them	×	

	<p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>		
<b>Policy TR2</b>	<p>Proposals that require static objects in the East marine plan areas, should demonstrate, in order of preference:</p> <p>a) that they will not adversely impact on recreational boating routes</p> <p>b) how, if there are adverse impacts on recreational boating routes, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	X	
<b>Policy TR3</b>	<p>Proposals that deliver tourism and/or recreation related benefits in communities adjacent to the East marine plan areas should be supported.</p>	X	Does not apply.

<p><b>Policy WIND1</b></p>	<p>Developments requiring authorisation, that are in or could affect sites held under a lease or an agreement for lease that has been granted by The Crown Estate for development of an Offshore Wind Farm, should not be authorised unless</p> <p>a) they can clearly demonstrate that they will not compromise the construction, operation, maintenance, or decommissioning of the Offshore Wind Farm</p> <p>b) the lease/agreement for lease has been surrendered back to The Crown Estate and not been re-tendered</p> <p>c) the lease/agreement for lease has been terminated by the Secretary of State</p> <p>d) in other exceptional circumstances</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy WIND2</b></p>	<p>Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.</p>	<p>×</p>	<p>Does not apply.</p>



## **EASTERN INSHORE FISHERIES AND CONSERVATION AUTHORITY**

### **MARINE AND COASTAL ACCESS ACT 2009 (c. 23)**

#### **Marine Protected Areas Byelaw 2018**

The Authority for the Eastern Inshore Fisheries and Conservation District in exercise of the powers conferred by sections 155, 156 and 158 of the Marine and Coastal Access Act 2009 makes the following byelaw for that District.

#### **Interpretation**

1. In this byelaw:

- a) 'the Authority' means the Eastern Inshore Fisheries and Conservation Authority as defined in Articles 2 and 4 of the Eastern Inshore Fisheries and Conservation Order 2010 (SI 2010/2189);
- b) 'the District' means the Eastern Inshore Fisheries and Conservation District as defined in Articles 2 and 3 of the Eastern Inshore Fisheries and Conservation Order 2010 (SI 2010/2189);
- c) co-ordinates are based on WGS 84 datum, where 'WGS 84' means the World Geodetic System, revised in 1984;
- d) 'fishing' includes:
  - (i) digging for bait;
  - (ii) shooting, setting, towing and hauling of fishing gear;
  - (iii) gathering sea fisheries resources by hand or by using a hand operated implement;
  - (iv) catching, taking or removing sea fisheries resources;
- e) 'fishing gear' includes any nets, pots, ropes, anchors, surface markers, lines, dredges, grabs, rakes or other implements used during fishing.
- f) 'Right of Common' means registered rights held by "commoners" in respect of registered "common land".

**Restrictions**

2. The restrictions set out in the schedules to this byelaw apply and contravention of such constitutes a contravention of this byelaw.

**Application**

3. This byelaw does not apply to any person performing an act which would otherwise constitute an offence against this byelaw, if that act was carried out in exercise of any right of common held by that person.

**Revocations**

4. The byelaw titled "Marine Protected Areas Byelaw 2016" which was made by the Eastern Inshore Fisheries and Conservation Authority on 24 February 2016 and in force immediately before the making of this byelaw, is revoked.

## **SCHEDULE 1**

### **MANAGEMENT MEASURES FOR THE WASH AND NORTH NORFOLK COAST SPECIAL AREA OF CONSERVATION**

#### **Interpretation**

1. In this schedule:
  - a) 'beam trawl' means a trawl net where the mouth or opening of the net is kept open by a beam, which is mounted at each end on guides, shoes or skids which travel along the seabed;
  - b) 'bottom towed gear' means any fishing gear designed to be towed, dragged or pushed through the water whilst in contact with the seabed;
  - c) 'Restricted Area' means any of the areas numbered 1 to 35 as defined by the co-ordinates in the tables in paragraph 6 of this schedule;
  - d) 'secured and stowed' means that fishing gear is stored in such a way that use cannot readily be made of it for any fishing activity.

#### **Restrictions**

2. A person must not fish with bottom towed gear in Restricted Areas 1 to 13 unless under the authority of a licence issued under Article 8 of the Wash Fishery Order 1992.
3. A person must not fish with bottom towed gear in Restricted Areas 14 to 35.
4. Subject to paragraph 5, when transiting through a Restricted Area bottom towed gear on vessels must be secured and stowed.
5. A vessel fishing using a beam trawl is exempt from paragraph 4 if the following apply:
  - a) it had been fishing up to the boundary of a Restricted Area or it will be fishing immediately upon leaving the Restricted Area; and
  - b) any beam is hoisted so that it is clearly visible above the sea and that no part of the fishing gear is in contact with any part of the seabed whilst the vessel is within the Restricted Area.

## Restricted Areas

6. The following tables set out the co-ordinates of the Restricted Areas referred to in sub-paragraph 1(c) of this schedule:

<b>Restricted Area 1</b>			
Restricted Area 1 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence, as set out in chart 1 for illustrative purposes.			
<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A	52° 57.60' N	00° 10.62' E	3.462
B	52° 57.60' N	00° 10.84' E	
C	52° 57.58' N	00° 10.86' E	
D	52° 57.50' N	00° 10.71' E	
E	52° 57.50' N	00° 10.66' E	
F	52° 57.60' N	00° 10.62' E	

<b>Restricted Area 2</b>			
Restricted Area 2 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.			
<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A	52° 57.13' N	00° 09.61' E	79.82
B	52° 57.03' N	00° 09.84' E	
C	52° 56.24' N	00° 09.08' E	
D	52° 56.32' N	00° 08.81' E	
E	52° 56.99' N	00° 09.19' E	
F	52° 57.13' N	00° 09.61' E	

### Restricted Area 3

Restricted Area 3 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 54.95' N	00° 05.47' E	60.70
B	52° 55.14' N	00° 06.30' E	
C	52° 54.85' N	00° 06.51' E	
D	52° 54.65' N	00° 05.54' E	
E	52° 54.95' N	00° 05.47' E	

### Restricted Area 4

Restricted Area 4 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 54.56' N	00° 06.06' E	6.493
B	52° 54.49' N	00° 06.13' E	
C	52° 54.41' N	00° 05.81' E	
D	52° 54.48' N	00° 05.70' E	
E	52° 54.56' N	00° 06.06' E	

### Restricted Area 5

Restricted Area 5 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 55.20' N	00° 08.97' E	379.7
B	52° 54.74' N	00° 09.35' E	
C	52° 54.61' N	00° 09.36' E	
D	52° 53.85' N	00° 08.46' E	
E	52° 53.89' N	00° 07.98' E	
F	52° 54.58' N	00° 06.74' E	
G	52° 55.04' N	00° 07.26' E	
H	52° 54.60' N	00° 08.10' E	
I	52° 55.20' N	00° 08.97' E	

### Restricted Area 6

Restricted Area 6 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 55.27' N	00° 09.74' E	123.4
B	52° 55.64' N	00° 10.60' E	
C	52° 55.63' N	00° 10.71' E	
D	52° 55.46' N	00° 10.72' E	
E	52° 55.46' N	00° 10.96' E	
F	52° 55.64' N	00° 11.42' E	
G	52° 55.64' N	00° 11.64' E	
H	52° 55.38' N	00° 11.87' E	
I	52° 55.19' N	00° 11.58' E	
J	52° 55.29' N	00° 11.38' E	
K	52° 55.19' N	00° 10.09' E	
L	52° 55.08' N	00° 09.82' E	
M	52° 55.27' N	00° 09.74' E	

### Restricted Area 7

Restricted Area 7 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 54.09' N	00° 11.00' E	15.72
B	52° 54.12' N	00° 11.39' E	
C	52° 54.13' N	00° 11.83' E	
D	52° 54.07' N	00° 11.78' E	
E	52° 53.98' N	00° 11.40' E	
F	52° 54.00' N	00° 11.22' E	
G	52° 54.09' N	00° 11.00' E	

### Restricted Area 8

Restricted Area 8 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 52.16' N	00° 11.52' E	24.64
B	52° 52.35' N	00° 12.06' E	
C	52° 52.36' N	00° 12.30' E	
D	52° 52.31' N	00° 12.33' E	
E	52° 52.28' N	00° 12.27' E	
F	52° 52.19' N	00° 12.26' E	
G	52° 52.14' N	00° 12.14' E	
H	52° 52.12' N	00° 11.85' E	
I	52° 52.09' N	00° 11.62' E	
J	52° 52.16' N	00° 11.52' E	

### Restricted Area 9

Restricted Area 9 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 50.74' N	00° 14.83' E	64.52
B	52° 50.43' N	00° 15.12' E	
C	52° 50.08' N	00° 14.57' E	
D	52° 50.08' N	00° 14.43' E	
E	52° 50.51' N	00° 14.29' E	
F	52° 50.74' N	00° 14.83' E	

### Restricted Area 10

Restricted Area 10 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 50.39' N	00° 15.14' E	89.17
B	52° 50.35' N	00° 15.40' E	
C	52° 50.18' N	00° 15.35' E	
D	52° 50.08' N	00° 15.41' E	
E	52° 50.20' N	00° 15.59' E	
F	52° 50.20' N	00° 15.84' E	
G	52° 50.04' N	00° 15.96' E	
H	52° 49.86' N	00° 15.99' E	
I	52° 49.77' N	00° 15.88' E	
J	52° 49.72' N	00° 15.75' E	
K	52° 49.79' N	00° 15.13' E	
L	52° 50.12' N	00° 14.97' E	
M	52° 50.39' N	00° 15.14' E	

### Restricted Area 11

Restricted Area 11 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 50.32' N	00° 17.58' E	103.5
B	52° 50.32' N	00° 17.77' E	
C	52° 50.19' N	00° 18.57' E	
D	52° 49.49' N	00° 18.80' E	
E	52° 49.57' N	00° 18.33' E	
F	52° 50.32' N	00° 17.58' E	

### Restricted Area 12

Restricted Area 12 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 1 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A	52° 50.08' N	00° 20.09' E	68.60
B	52° 50.36' N	00° 20.68' E	
C	52° 50.23' N	00° 20.99' E	
D	52° 49.69' N	00° 21.09' E	
E	52° 50.08' N	00° 20.09' E	

### Restricted Area 13

Restricted Area 13 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence.

Point	Latitude	Longitude	Area (hectares)
A	52° 51.69' N	00° 21.50' E	16.19
B	52° 51.95' N	00° 21.71' E	
C	52° 51.82' N	00° 22.01' E	
D	52° 51.63' N	00° 21.66' E	
E	52° 51.69' N	00° 21.50' E	

**Restricted Area 14**

Restricted Area 14 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 06.35' N	00° 23.92' E	136.7
B.	53° 06.09' N	00° 24.70' E	
C.	53° 05.35' N	00° 24.37' E	
D.	53° 05.61' N	00° 23.60' E	
E.	53° 06.35' N	00° 23.92' E	

**Restricted Area 15**

Restricted Area 15 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 05.53' N	00° 24.58' E	8.01
B.	53° 05.52' N	00° 24.82' E	
C.	53° 05.37' N	00° 24.80' E	
D.	53° 05.40' N	00° 24.50' E	
E.	53° 05.53' N	00° 24.58' E	

**Restricted Area 16**

Restricted Area 16 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 05.23' N	00° 25.06' E	1.51
B.	53° 05.20' N	00° 25.17' E	
C.	53° 05.13' N	00° 25.07' E	
D.	53° 05.15' N	00° 25.03' E	
E.	53° 05.23' N	00° 25.06' E	

**Restricted Area 17**

Restricted Area 17 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 05.18' N	00° 24.47' E	26.78
B.	53° 05.10' N	00° 24.98' E	
C.	53° 04.89' N	00° 24.89' E	
D.	53° 04.85' N	00° 24.45' E	
E.	53° 05.18' N	00° 24.47' E	

**Restricted Area 18**

Restricted Area 18 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 05.34' N	00° 24.20' E	43.24
B.	53° 05.19' N	00° 24.40' E	
C.	53° 04.81' N	00° 23.68' E	
D.	53° 05.02' N	00° 23.44' E	
E.	53° 05.34' N	00° 24.20' E	

**Restricted Area 19**

Restricted Area 19 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 05.00' N	00° 25.49' E	264.7
B.	53° 04.71' N	00° 26.09' E	
C.	53° 03.28' N	00° 25.55' E	
D.	53° 03.37' N	00° 24.86' E	
E.	53° 04.80' N	00° 25.19' E	
F.	53° 05.00' N	00° 25.49' E	

### Restricted Area 20

Restricted Area 20 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	53° 02.66' N	00° 29.46' E	2.726
B.	53° 02.66' N	00° 29.63' E	
C.	53° 02.59' N	00° 29.63' E	
D.	53° 02.59' N	00° 29.46' E	
E.	53° 02.66' N	00° 29.46' E	

### Restricted Area 21

Restricted Area 21 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	53° 03.86' N	00° 30.22' E	59.33
B.	53° 03.86' N	00° 30.48' E	
C.	53° 03.67' N	00° 30.48' E	
D.	53° 03.22' N	00° 30.15' E	
E.	53° 03.22' N	00° 29.78' E	
F.	53° 03.48' N	00° 29.78' E	
G.	53° 03.86' N	00° 30.22' E	

### Restricted Area 22

Restricted Area 22 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	53° 02.18' N	00° 22.57' E	52.65
B.	53° 02.19' N	00° 23.16' E	
C.	53° 02.09' N	00° 23.30' E	
D.	53° 01.87' N	00° 23.15' E	
E.	53° 01.76' N	00° 22.80' E	
F.	53° 01.85' N	00° 22.60' E	
G.	53° 02.00' N	00° 22.49' E	
H.	53° 02.18' N	00° 22.57' E	

### Restricted Area 23

Restricted Area 23 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 59.11' N	00° 27.46' E	2.397
B.	52° 59.06' N	00° 27.52' E	
C.	52° 59.00' N	00° 27.38' E	
D.	52° 59.06' N	00° 27.32' E	
E.	52° 59.11' N	00° 27.46' E	

### Restricted Area 24

Restricted Area 24 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.17' N	00° 15.98' E	2.43
B.	52° 57.17' N	00° 16.08' E	
C.	52° 57.06' N	00° 16.06' E	
D.	52° 57.06' N	00° 15.94' E	
E.	52° 57.17' N	00° 15.98' E	

### Restricted Area 25

Restricted Area 25 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.49' N	00° 17.20' E	1.55
B.	52° 57.51' N	00° 17.31' E	
C.	52° 57.44' N	00° 17.34' E	
D.	52° 57.43' N	00° 17.23' E	
E.	52° 57.49' N	00° 17.20' E	

### Restricted Area 26

Restricted Area 26 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.85' N	00° 19.73' E	2.08
B.	52° 57.85' N	00° 19.96' E	
C.	52° 57.81' N	00° 19.96' E	
D.	52° 57.80' N	00° 19.74' E	
E.	52° 57.85' N	00° 19.73' E	

### Restricted Area 27

Restricted Area 27 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.18' N	00° 22.07' E	47.29
B.	52° 57.14' N	00° 22.40' E	
C.	52° 57.02' N	00° 22.44' E	
D.	52° 56.81' N	00° 22.35' E	
E.	52° 56.68' N	00° 22.13' E	
F.	52° 56.69' N	00° 21.90' E	
G.	52° 56.75' N	00° 21.88' E	
H.	52° 57.03' N	00° 21.83' E	
I.	52° 57.18' N	00° 22.07' E	

### Restricted Area 28

Restricted Area 28 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.87' N	00° 08.71' E	3.794
B.	52° 57.85' N	00° 08.81' E	
C.	52° 57.82' N	00° 08.83' E	
D.	52° 57.71' N	00° 08.65' E	
E.	52° 57.73' N	00° 08.58' E	
F.	52° 57.87' N	00° 08.71' E	

### Restricted Area 29

Restricted Area 29 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence as set out in chart 2 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	53° 04.10' N	00° 27.65' E	3446
B.	53° 03.65' N	00° 29.98' E	
C.	53° 01.43' N	00° 27.35' E	
D.	52° 59.83' N	00° 24.77' E	
E.	52° 58.75' N	00° 24.60' E	
F.	52° 58.32' N	00° 24.20' E	
G.	52° 57.57' N	00° 22.13' E	
H.	52° 58.23' N	00° 21.45' E	
I.	52° 58.60' N	00° 21.47' E	
J.	53° 00.22' N	00° 22.83' E	
K.	53° 04.10' N	00° 27.65' E	

**Restricted Area 30**

Restricted Area 30 is defined by a straight line between points A and B in this table and the land boundary is to be taken as the mean high water springs mark as set out in chart 3 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	52° 59.00' N	00° 40.03' E	51.69
B.	52° 58.63' N	00° 40.85' E	

**Restricted Area 31**

Restricted Area 31 is defined by a boundary drawn by a line connecting points A and B which follows the three nautical mile boundary (three nautical miles from the 1983 baseline) and a series of straight lines drawn in sequence between points B to J listed in this table as set out in chart 3 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 02.58' N	00° 50.67' E	5922
B.	53° 01.65' N	01° 01.57' E	
C.	52° 58.88' N	01° 01.60' E	
D.	52° 59.16' N	01° 00.06' E	
E.	52° 59.71' N	00° 55.55' E	
F.	52° 59.86' N	00° 54.90' E	
G.	52° 59.73' N	00° 53.81' E	
H.	52° 59.79' N	00° 52.44' E	
I.	52° 59.96' N	00° 50.70' E	
J.	53° 02.58' N	00° 50.67' E	

### Area 32

Restricted Area 32 is defined by a straight line between points A and B in this table, the western boundary between points A and C follows the charted channel (including changes to the channel over time) and the land boundary is to be taken as the mean high water springs mark between points B and C, as set out in chart 3 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 58.72' N	00° 50.76' E	80.34
B.	52° 58.72' N	00° 52.00' E	
C.	52° 58.17' N	00° 51.40' E	

### Area 33

Restricted Area 33 is defined by straight lines connecting points A to C in the table below, a line drawn between points C, D and E which follows the charted channel (including changes over time) and the land boundary is to be taken as the mean high water springs mark between points E and A, as set out in chart 3 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 57.78' N	00° 56.40' E	64.55
B.	52° 57.97' N	00° 56.42' E	
C.	52° 58.09' N	00° 57.22' E	
D.	52° 57.82' N	00° 57.86' E	
E.	52° 57.63' N	00° 57.79' E	

### Area 34

Restricted Area 34 is defined as the area north of a straight line drawn between points A and B in the table below and the land boundary is to be taken as the mean high water springs mark, as set out in chart 3 for illustrative purposes.

Point	Latitude	Longitude	Area (hectares)
A.	52° 58.27' N	00° 57.91' E	19.06
B.	52° 58.27' N	00° 58.18' E	

### Area 35

Restricted Area 35 is defined by the boundary by straight lines connecting points A to C, the land boundary between points C and D is to be taken as the mean high water springs mark and the land boundary between points D and A is to be taken as the mean high water springs mark, as set out in chart 3 for illustrative purposes.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	52° 58.24' N	01° 00.75' E	67.89
B.	52° 57.79' N	01° 00.77' E	
C.	52° 57.86' N	01° 01.20' E	
D.	52° 58.03' N	01° 02.22' E	

## **SCHEDULE 2**

### **MANAGEMENT MEASURES FOR THE HUMBER ESTUARY SPECIAL AREA OF CONSERVATION**

#### **Interpretation**

1. In this schedule:
  - a) 'angling' means fishing using a rod and line or a hook and line;
  - b) 'beam trawl' means a trawl net where the mouth or opening of the net is kept open by a beam, which is mounted at each end on guides or skids which travel along the seabed;
  - c) 'crab tiling' means laying artificial items or structures in intertidal areas to gather crabs for the purpose of fishing;
  - d) 'handwork' means the collection of sea fisheries resources, including bait, using the hands or handheld 'fishing gear';
  - e) 'Restricted Area' means the area 36 specified using co-ordinates in the table in paragraph 5 of this schedule.

#### **Restrictions**

2. Within Restricted Area 36 a person must not:
  - a) fish with bottom towed gear;
  - b) fish by handwork;
  - c) fish by crab tiling.
3. The prohibitions in paragraph 2 do not apply to angling.
4. When transiting through Restricted Area 36 bottom towed gear on vessels must be secured and stowed.

#### **Restricted Areas**

5. The following table sets out the co-ordinates of Restricted Area 36 referred to in subparagraph 1(e) of this schedule.

**Area 36**

Restricted Area 36 is defined by a boundary drawn by the series of straight lines connecting each point listed in this table to the next point in sequence.

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Area (hectares)</b>
A.	53° 29.67' N	00° 04.90' E	170.8
B.	53° 30.44' N	00° 06.29' E	
C.	53° 29.10' N	00° 06.04' E	
D.	53° 29.67' N	00° 04.90' E	

## Explanatory Note

(This note does not form part of the byelaw)

This byelaw sets restrictions for fishing activities to protect marine habitats and species within or adjacent to marine protected areas from fishing activities. Restrictions include areas restricted to specified fishing gear and types of fishing activity and restrictions related to the use of fishing gear.

Marine protected areas include;

- Special Areas of Conservation (SAC) Sites of Community Interest (SCI) and Special Protection Areas (SPA). The European network of these areas is collectively known as Natura 2000) as provided in Article 3 Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive);
- Marine Conservation Zones (MCZ) as designated by an Order under section 116 of the Marine and Coastal Access Act 2009 (c.23);
- Sites of special scientific interest within the meaning of Part 2 of the Wildlife and Countryside Act 1981 (c.69);
- National nature reserves declared in accordance with section 35 of that Act;
- Ramsar sites within the meaning under section 37A of that Act.

Management measures are set out in schedules 1 and 2 of this byelaw in relation to the Wash and North Norfolk Coast SAC and the Humber Estuary SAC.

Restrictions within the Wash and North Norfolk Coast SAC include Restricted Areas in relation to fishing with bottom towed gear and a requirement to have bottom towed gear lashed and stowed when a fishing vessel is inside the Restricted Areas. Fishers are exempt from the requirement to lash and stow bottom towed gear if the vessel had been fishing using a beam trawl up to the boundary of a Restricted Area or it will be fishing immediately upon leaving the Restricted Area however the gear is must be suspended clear of the water.

Restrictions in the Humber Estuary SAC include a Restricted Area in relation to fishing with bottom towed gear, fishing by hand and crab-tilling. The Restricted Area does not apply to fishing by hand when a rod and line or hook and line is used.

Paragraph 3 of this Byelaw specifically preserves personal "rights of common". These are particular, specialised and defined rights held by "commoners" in respect of registered "common land". "Rights of Common" relate only to registered common land and this Byelaw retains full force and effect against all other persons, including those exercising their common law right of fishery and any person exercising a private or several right of fishery. If you have any doubts about the applicability of this Byelaw to you, you should seek guidance from the Authority before fishing for or taking any sea fisheries resources.

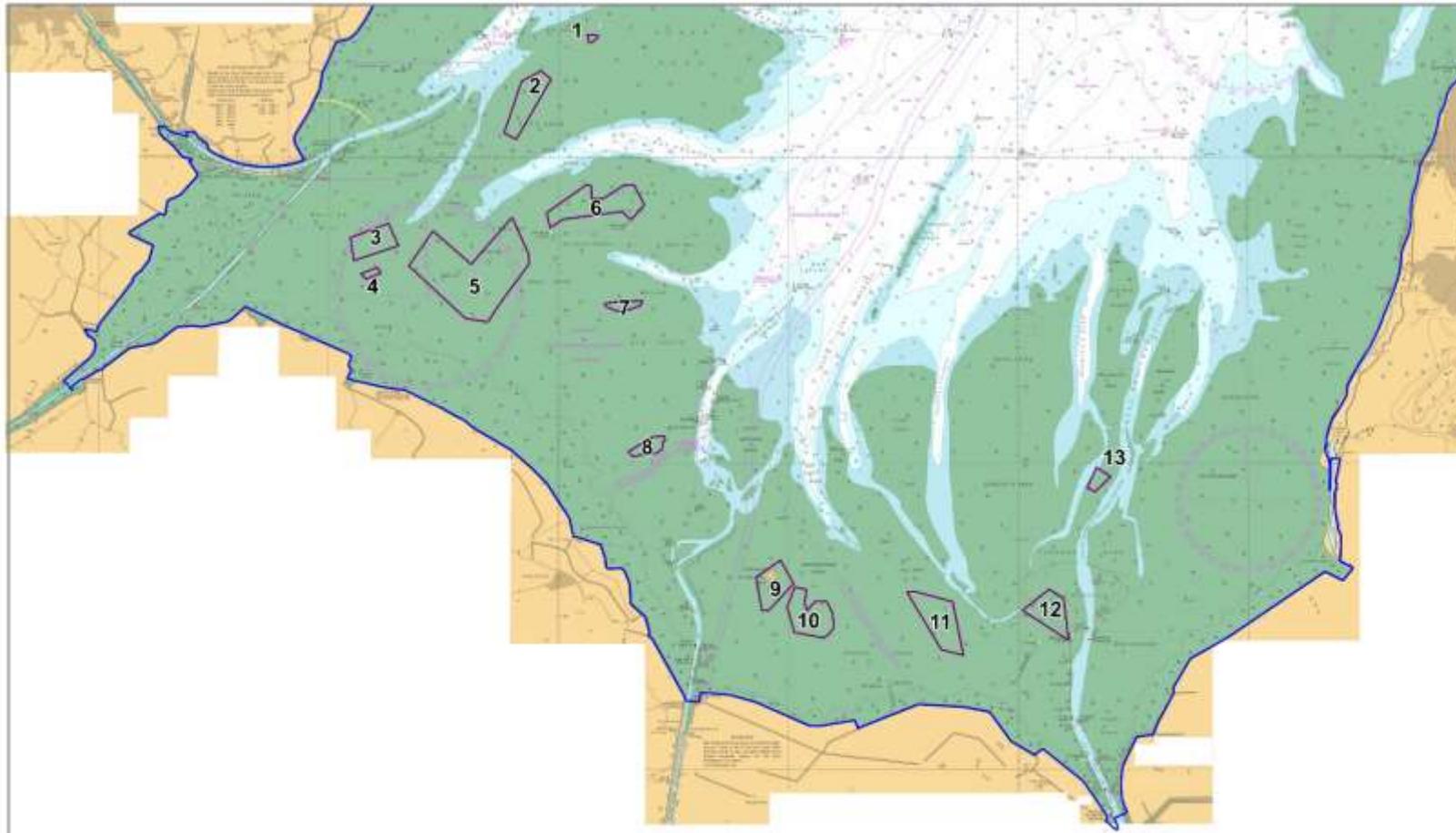


Chart 1: The Wash Mussel Beds - Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- The Wash and North Norfolk Coast SAC boundary

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Date: 04/07/18  
 Drawn by: SC  
 Projection: Lat Long WGS84  
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 UK\_SACs\_withMarineComponents\_2103821

2018\_07\_Adm\_Wash\_Mussel\_Layout\_Auth\_meet\_Chart\_1.WOR

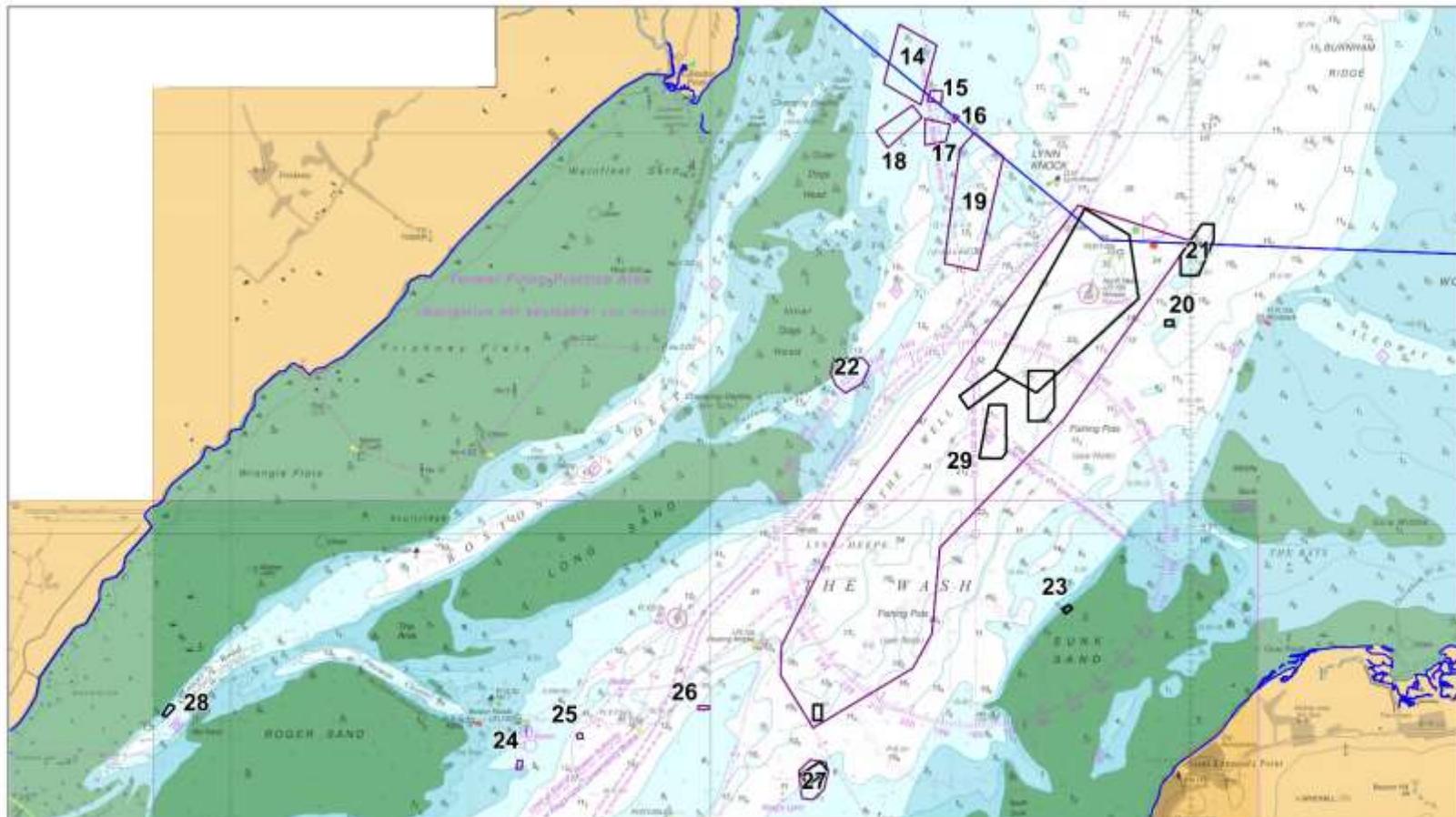


Chart 2: The Wash Central & Northern - Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- The Wash and North Norfolk Coast SAC boundary
- Existing Marine Protected Area closures

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2018\_07\_Adm\_Wash\_Combi\_Layout\_Auth\_meet\_Chart\_2.WDR

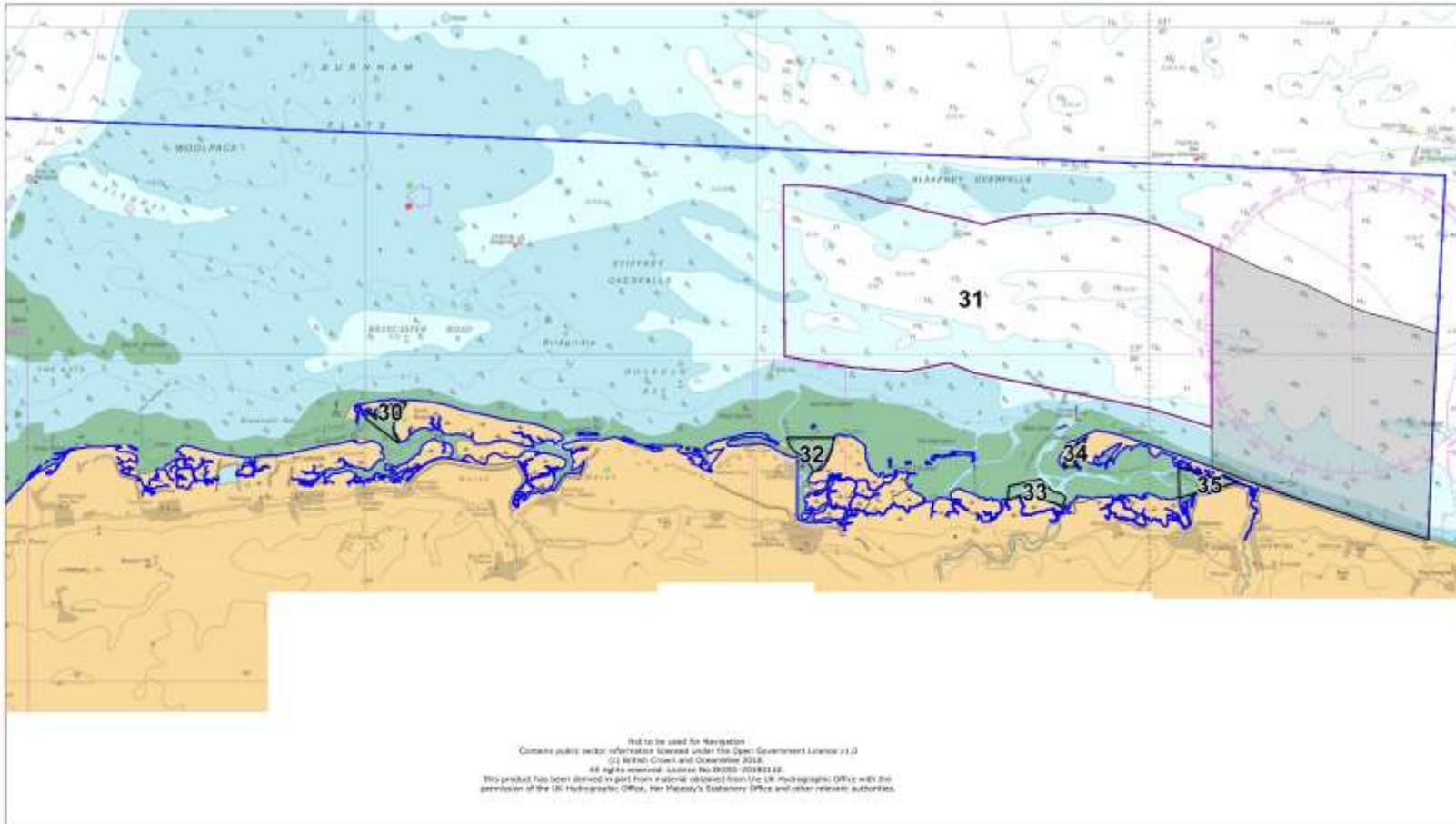
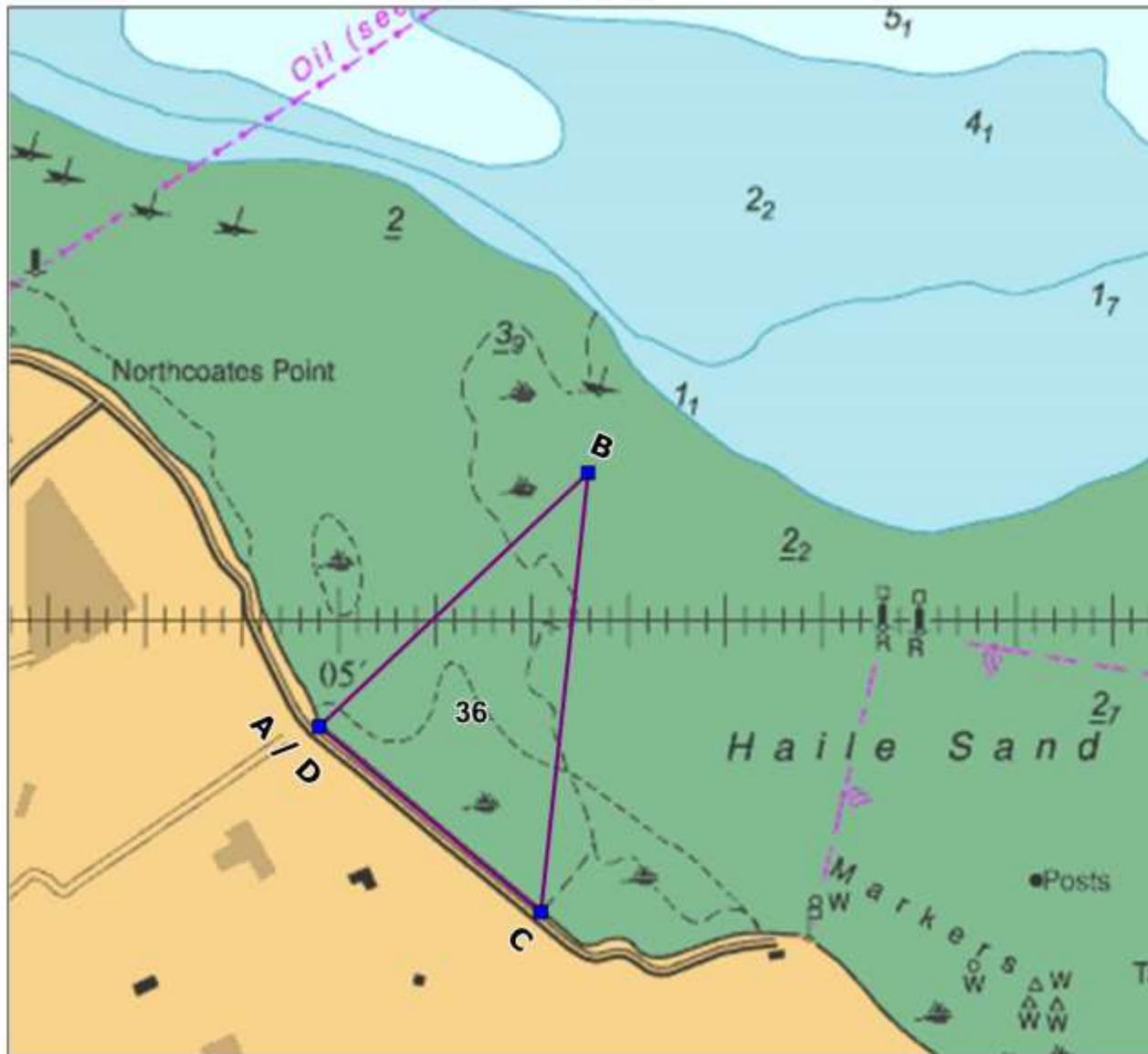


Chart 3: North Norfolk Coast Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- Existing Marine Protected Area closures
- Existing Byelaw 12 Trawling Restricted Area
- The Wash and North Norfolk Coast Coast SAC boundary

Date:26/10/18  
 Drawn by:SC  
 Projection: Lat Long WSG84  
 EMS boundary:JNCC download -  
 UK\_SACs\_withMarineComponents\_2103821

2018\_10\_Post\_Con\_Adm\_NNC\_Layout.WOR



### Marine Protected Areas Byelaw 2018

Chart 4: *Zostera* (eelgrass) -

Fishing restrictions within the restricted area a person must not:

- a) fish with bottom towed gear;
- b) fish by handwork;
- c) fish by crab tiling.

Restricted area

■ Location points

Decimal Degrees

Point	Latitude	Longitude
A	53.494415°	0.081682°
B	53.507329°	0.104793°
C	53.484969°	0.100740°
D	53.494415°	0.081682°

Degrees and Decimal Minutes

Point	Latitude	Longitude
A	53° 29.67' N	00° 04.90' E
B	53° 30.44' N	00° 06.29' E
C	53° 29.10' N	00° 06.04' E
D	53° 29.67' N	00° 04.90' E

Area = 170.8 hectares



Date: 30/10/18 Drawn by: SC  
 Projection: Lat Long WGS84  
 Data sources: IFCA  
 Ref: MPA\_Byelaw\_2018\_Chart\_4.wor

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<b>Title:</b> Marine Protected Areas Byelaw 2018  <b>IA No:</b> DRAFT_EIFCA006  <b>Lead department or agency:</b> Eastern Inshore Fisheries and Conservation Authority  <b>Other departments or agencies:</b>	<b>Impact Assessment (IA)</b>			
	<b>Date:</b> 30/10/2018			
	<b>Stage:</b> Development/Options			
	<b>Source of intervention:</b> Domestic			
	<b>Type of measure:</b> Other			
<b>Contact for enquiries:</b> Julian Gregory (CEO) Eastern IFCA, 6 North Lynn Business Village, Bergen Way, King's Lynn, Norfolk, PE30 2JG; tel:01553 775321, email: mail@eastern-ifca.gov.uk				
<b>Summary: Intervention and Options</b>				<b>RPC Opinion:</b> Not Applicable

Cost of Preferred (or more likely) Option				
Total Net Present	Business Net Present	Net cost to business per year (EANDCB in 2014)	One-In, Three-Out	Business Impact Target Status
£-637,985	£-576,215	£60,012.	Not	To be
<b>What is the problem under consideration? Why is government intervention necessary?</b> Shrimp fishing within the Wash and North Norfolk Coast Special Area of Conservation (SAC) has been assessed and adverse impacts on site integrity cannot be ruled out. Spatial closures are proposed through the Marine Protected Areas Byelaw 2018 which mitigate the risk to the most sensitive sub-features (sub-tidal mixed sediment and subtidal mud). <b>Why is government intervention necessary?</b> The risk to Marine Protected Areas (MPAs)				
<b>What are the policy objectives and the intended effects?</b>  Objectives: To manage long-term, sustainable shrimp fisheries within the Eastern IFC District which do not adversely impact the conservation objectives of marine protected areas by prohibiting the use of any bottom towed gear (including in relation to fishing for species other than shrimp) over habitats which have been assessed as being vulnerable to this fishery. Intended effects: Prevent degradation and /or improve the condition of habitats vulnerable to bottom towed gear within the Wash and North Norfolk Coast SAC				

<b>What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)</b> Option 0. Do nothing. Option 1. Discrete spatial closures through the Marine Protected Areas Byelaw 2018 Option 2. Total closure The preferred option is option 1 – The proposed byelaw will ensure that fishing activity will not impact negatively on the conservation objectives of the Wash and North Norfolk Coast					
<b>Will the policy be reviewed?</b> It will be reviewed. <b>If applicable, set review date:</b> 07/2024					
Does implementation go beyond minimum EU			No		
Are any of these organisations in scope?		<b>Micro</b> Yes	<b>Small</b> Yes	<b>Medium</b> m	<b>Large</b> Yes
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)			<b>Traded:</b> N/A		<b>Non-traded:</b> N/A

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible Chief Executive:

Date:

**Summary: Analysis & Evidence****Policy Option 1**

Description:

**FULL ECONOMIC ASSESSMENT**

Price Base Year	PV Base Year 2016	Time Period Years: 10	Net Benefit (Present Value (PV)) (£)		
			Low: £-207,299	High: £-4,406,447	Best Estimate: £-637,985
<b>COSTS (£m)</b>		<b>Total Transition</b>	<b>Average Annual (excl. Transition)</b>	<b>Total Cost (Present)</b>	
Low		0.0	£24,083	£207,299	
High		0.0	£511,920	£4,406,447	
Best Estimate		0.0	£74,118	£637,985	
<b>Description and scale of key monetised costs by 'main affected groups'</b>					
Key monetised costs relate to the loss of fishing grounds to shrimp fishers as a result of spatial closures. The scale of the impact based on the best estimate is likely to be low to moderate in relation to the brown shrimp fishery. The actual scale of impact is likely to vary annually given the spatial variability of the shrimp fishery within the site and the potential for important fishing grounds to co-occur with proposed spatial closures. The best estimate is likely to be an over-estimate given					
<b>Other key non-monetised costs by 'main affected groups'</b>					
The closures are thought to effectively rule out any future pink shrimp fishery. There is only a limited pink shrimp fishery at present (as reflected in the monetised costs) although it had historically been worth significantly more. No data is available to accurately monetise this impact.					
<b>BENEFITS (£m)</b>		<b>Total Transition</b>	<b>Average Annual (excl. Transition) (Constant)</b>	<b>Total Benefit (Present Value)</b>	
Low		Unknow	Unknown	Unknown	
High		Unknow	Unknown	Unknown	
Best Estimate		n/a	n/a	n/a	
<b>Description and scale of key monetised benefits by 'main affected groups'</b>					
none identified					
<b>Other key non-monetised benefits by 'main affected groups'</b>					
Protection of the habitats identified as being at risk from shrimp fishing activity will have a positive effect on the overall ecological functioning of the MPA and potentially improve fishery productivity, including in relation to species other than shrimps.					
Key assumptions/sensitivities/risks				<b>Discount rate</b>	3.5%

Assumptions: Fishing grounds identified through Eastern IFCA catch returns data are accurate.  
 Sensitivities / risks: Spatial closures cause displacement into other less sensitive areas with the effect of impacting site integrity (unlikely), shrimp population dynamics result in future important shrimp fisheries occur within closed areas with an increased economic impact on the industry.

**BUSINESS ASSESSMENT (Option 1)**

<b>Direct impact on business (Equivalent Costs: £60,012   Benefits: 0.0   Net: -£60,012</b>			<b>Score for Business Impact Target (qualifying provisions only) £m:</b>
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**Evidence Base**

Problem under consideration

Defra’s revised approach to managing fishing activity in European Marine Sites requires Eastern IFCA to ensure that fishing activity does not have an adverse effect on site integrity in marine protected areas (MPA) which occur within the IFC District. This requirement derives from Article 6 of the Habitats directive and the Conservation of Habitats and Species Regulations (as amended) 2017 (SI 2017/1012). Furthermore, Eastern Inshore Fisheries and Conservation Authority (IFCA) is required under the Marine and Coastal Access Act 2009 to further the conservation objectives of any marine conservation zones within the Eastern IFC District.

Eastern IFCA also has a duty to take action to ensure the sustainable exploitation of fisheries within its district as per section 153 of the Marine and Coastal Access Act 2009. In carrying out its duties Eastern IFCA is obliged to ensure good environmental status of fish and shellfish stocks as per the Marine Strategy Framework Directive (2008/56/EC) namely; sustainable fisheries with high long-term yields, stocks functioning at full reproductive capacity, and to maintain or increase the proportion of older and larger individuals.

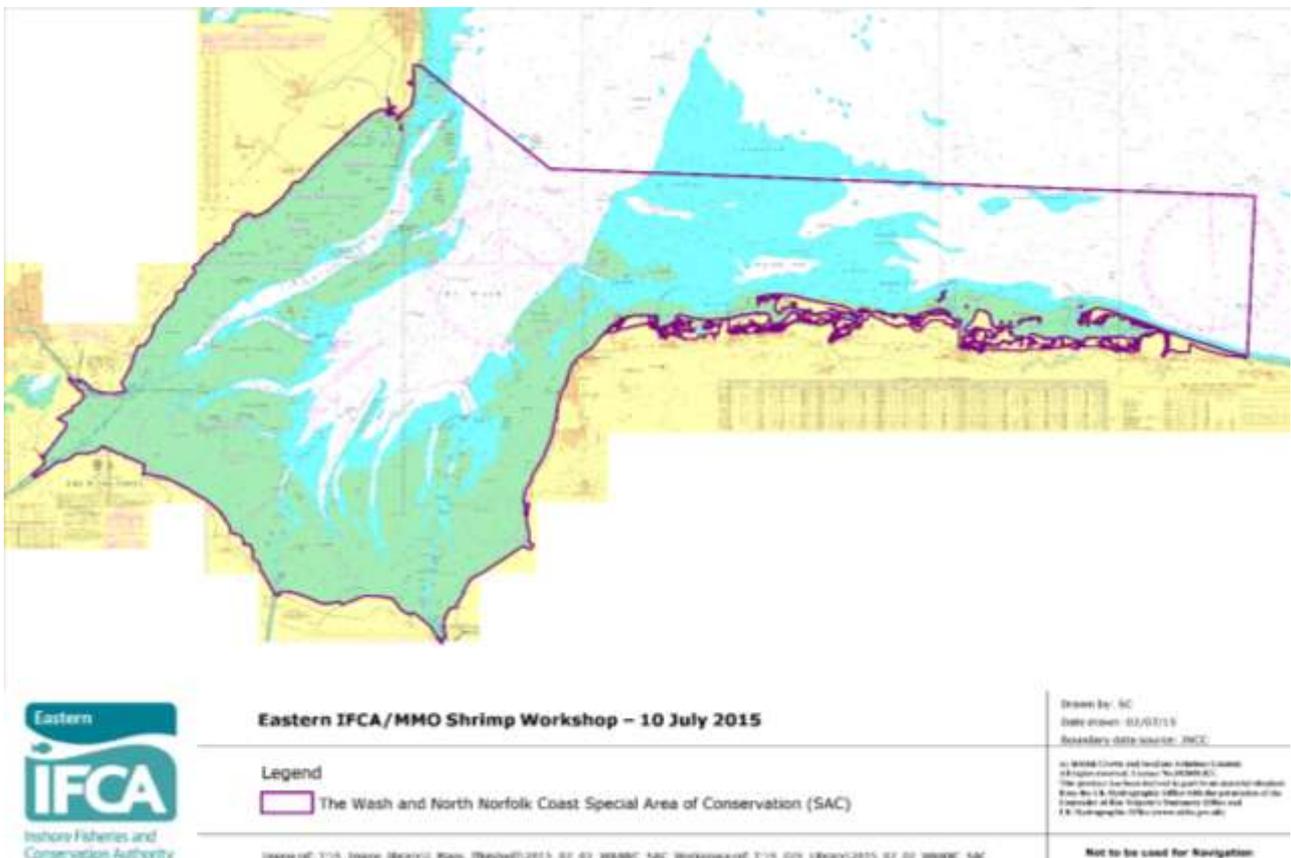


Figure 1. Chart showing the boundary of the Wash and North Norfolk Coast Special Area of Conservation

The prolific shrimp fishery within the Eastern IFC District co-occurs primarily with the Wash and North Norfolk Coast Special Area of Conservation (SAC) – see fig 1. The fishery was assessed in accordance with s.63 of the Habitats and Species Regulations (as amended) 2017 and it was concluded that management measures are required to prevent an adverse effect on site integrity.

The Wash and North Norfolk brown shrimp fishery is the most important in the UK, accounting for approximately 90% of UK landings (ICES, 2010). The annual first sale value of this fishery has ranged from £538,234 to £2,668,685 with an average value of £1,662,408 (Marine Management Organisation landings data release 23/08/2018). Between 29 and 54 different vessels have operated in the fishery annually from 2010 to 2017 with a total of 82 different vessels having operated over the same time period.

This is a year-round fishery but effort and landings typically peak from September to November (Innes et al., 2007; ICES, 2015). In the past, the fishery has been a significant employer in the ports of Boston and King's Lynn (Innes et al., 2007). Beam trawling for shrimp is one of the main fishing activities occurring within The Wash and North Norfolk Coast SAC. Aviat et al. (2011) reported that approximately 500 vessels and 1,000 fishers are involved in the North Sea brown shrimp fishery (i.e. across the whole of the North Sea brown shrimp fishing area, of which The Wash is a small part). Currently, approximately 37,000 tonnes of shrimp are fished per annum by Dutch (53%), German (33%), Danish (8%), UK (2%), Belgian (2%) and French (1%), including the Eastern English Channel vessels (Seafish, 2017). Reflecting on these percentages, The Wash and North Norfolk Coast brown shrimp fishery is of huge importance on a local level, however, it is not nearly as extensive or intensive as the continental fishery.

Traditionally, two species were targeted in The Wash and North Norfolk Coast area by this activity; brown shrimp (*Crangon* spp.) and pink shrimp (*Pandalus montagui*), with the pink shrimp fishery being the more important fishery for more than 150 years (MES, 2012). Currently there is no fishing for pink shrimp due to market conditions, competing potting activity and restrictions on towed demersal gear in the available grounds. The pink shrimp fishery used to operate in deeper waters of The Wash and its approaches, and is often associated with biogenic reef created by *Sabellaria spinulosa* colonies.

Other species are also thought to be caught from this area using bottom-towed gear although activity is thought to be small compared to the brown shrimp fishery. Notable species include sole, cod and whiting.

Towed demersal fishing activities on features: subtidal biogenic reef: *Sabellaria* spp., subtidal stony reef and intertidal seagrass beds within the MPA are classified as red-risk interactions and required management measures to prevent fishing activities from having harmful effects on the environment. To address this, the Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) created the Protected Area Byelaw (now the Marine Protected Areas Byelaw 2016), to prohibit certain fishing activities across ten areas to prevent the above red-risk activity-feature interactions occurring in the district.

An additional 'red-risk' feature interaction has been identified in the form of use of bottom-towed-gear over mussel beds. Mussel beds are considered a 'biogenic reef' (as is the case for *Sabellaria* reef) and therefore require protective closures.

Towed demersal fishing activities on all other (none-red risk) features within the Wash and North Norfolk SAC were assessed as amber and green risk activity-feature interactions in the shrimp fishery Habitats Regulations Assessment for the Wash and North Norfolk Coast SAC<sup>2</sup>. This identified a requirement to introduce management measures (mitigation) to reduce the impacts of this fishery on sub-tidal mud and mixed sediments. Mitigation is required because the assessment concluded that “adverse effect on site integrity” could not be ruled out. This was a precautionary conclusion based on the lack of direct evidence that impacts were not occurring – although many parts of the assessment suggested that impacts were unlikely to occur, particularly on the less sensitive features of the site. The precautionary stance is required by the Habitats Regulations.

Eastern IFCA has identified that two types of subtidal mixed sediments occur within the site, one being more vulnerable than the other, based on the type of sediment and associated species present. This is evidenced in grab sample and video survey data gathered by Eastern IFCA in 2016 and 2017 (Hormbrey 2018). Closures will be focused on the more vulnerable type of subtidal mixed sediment.

Vulnerable mixed sediment is defined as angular gravel with sand and mud, supporting various epifauna and occurring in water deeper than ten metres below chart datum. The other common type of mixed sediment within The Wash is mud or sandy mud with gravel rounded by constant movement, sometimes including a layer of broken shell on the surface and supporting very little if any epifauna.

It is judged that the spatial closures provide sufficient mitigation to ensure no adverse effect on site integrity from shrimp beam trawl fishery interactions, and those related to the wider use of bottom-towed-gear, with subtidal mixed sediment and subtidal mud. Furthermore, the closures will provide protection to key sensitive species highlighted in the assessment where they occur within these two sub-feature habitats.

It is judged that spatial closures are not required for the remaining features, nor the remaining parts of the subtidal mixed sediment and subtidal mud sub-features of the site, but that technical restrictions and overall effort limitations are required to limit impacts in the remainder of the site and ensure adverse effects on site integrity can be ruled out. A summary of the outputs of the HRA are set out in Table 1 (below).

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<sup>2</sup> Full HRA can be found here: <http://www.eastern-ifca.gov.uk/habitats-regulations-assessment-impacts-shrimp-fishery-wash-north-norfolk-coast-special-area-conservation/>

Table 1: Summary of mitigation for Wash & North Norfolk Coast, its sub-features or sensitive species where impacts could not be ruled out.

Sub-feature	Mitigation	Mechanism
Harbour seal	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A2.1 Intertidal coarse sediment	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A2.2 Intertidal sand	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A2.3 Intertidal mud	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A5.1 Subtidal coarse sediment	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A5.2 Subtidal sand	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
A5.3 Subtidal mud	Spatial closures (part) Gear restriction; effort limitation	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
A5.4 Subtidal mixed sediment	Spatial closures (part) Gear restriction; effort limitation	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
A5.6 Subtidal biogenic reef	Spatial closures (update of 2014 closures)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
W&NNC SAC	Spatial closures (part); Gear restriction; effort limitation	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
<i>Abra alba</i> (App 8c)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
	Spatial closures (part)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
<i>Bathyporeia elegans</i>	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw

Sub-feature	Mitigation	Mechanism
(App 8d)		
<i>Flustra foliacea</i> (App 8e)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
<i>Hydrallmania falcata</i> (App 8f)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
<i>Lanice conchilega</i> (App 8g)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
	Spatial closures (part)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
<i>Mediomastus fragilis</i> (App 8h)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
	Spatial closures (part)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
<i>Mytilidea</i> (App 8i)	Spatial closures (part)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw
<i>Ophiuroidea</i> (App 8j)	Gear restriction; effort limitation	EIFCA Shrimp permitting byelaw
	Spatial closures (part)	EIFCA Marine Protected Areas byelaw EIFCA Shrimp permitting byelaw

### Rationale for intervention

IFCAs have a duty to ensure that fish stocks are exploited in a sustainable manner, and that any impacts from that exploitation on designated features in the marine environment are reduced or suitably mitigated, by implementing appropriate management measures. Implementing this byelaw will enable Eastern IFCA to ensure that fishing activities are conducted in a sustainable manner and that the marine environment is suitably protected.

Fishing activities can potentially cause negative outcomes as a result of 'market failures'. These failures can be described as:

1. Public goods and services – a number of goods and services provided by the marine environment such as

biological diversity are 'public goods' (no-one can be excluded from benefiting from them, but use of the goods does not diminish the goods being available to others). The characteristics of public goods, being available to all but belonging to no-one, mean that individuals do not necessarily have an incentive to voluntarily ensure the continued existence of these goods which can lead to under-protection/provision.

2. Negative externalities – negative externalities occur when the cost of damage to the marine environment is not fully borne by the users causing the damage. In many cases no monetary value is attached to the goods and services provided by the marine environment and this can lead to more damage occurring than would occur if the users had to pay the price of damage. Even for those marine harvestable goods that are traded (such as wild fish), market prices often do not reflect the full economic cost of the exploitation or of any damage caused to the environment by that exploitation.
3. Common goods - a number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' (no-one can be excluded from benefiting from those goods however consumption of the goods does diminish that available to others). The characteristics of common goods (being available but belonging to no-one, and of a diminishing quantity), mean that individuals do not necessarily have an individual economic incentive to ensure the long-term existence of these goods which can lead, in fisheries terms, to potential overfishing. Furthermore, it is in the interest of each individual to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an inefficient amount of effort and unsustainable exploitation.

IFCA byelaws aim to redress these sources of market failure in the marine environment through the following ways:

- Management measures to conserve designated features of MPAs will ensure negative externalities are reduced or suitably mitigated.
- Management measures will support continued existence of public goods in the marine environment by conserving the range of biodiversity in the sea of the Eastern IFC District.
- Management measures will also support continued existence of common goods in the marine environment by ensuring the long-term sustainability of shrimp stocks in the Eastern IFC District.

#### Policy objective

The policy objective is to ensure that the shrimp fishery within the Wash and North Norfolk Coast SAC does not have a negative impact upon site integrity whilst minimising the economic impact on the fishing industry.

The intended effect of the measures is to prohibit the use bottom towed gear in areas which contain habitats which are likely to be damaged by their use and with the effect of adversely affecting site integrity of the Wash and North Norfolk Coast SAC.

#### Description of options considered (including status quo);

*Option 0 (do nothing) – status quo*

Eastern IFCA has assessed the impacts of shrimp fishing on the Wash and North Norfolk Coast SAC.

This assessment has concluded that adverse impacts on site integrity cannot be ruled out in relation to some sub-features where any level of fishing activity using bottom towed gear is considered likely to have a significant adverse effect.

The 'do nothing' option would have the least economic impact on stakeholders however, is not considered to adequately reduce the risk of impacts from shrimp fishing within Wash and North Norfolk Coast SAC and is therefore not considered a viable option.

#### *Option 1 (preferred option) – Marine Protected Areas Byelaw 2018*

The Marine Protected Areas Byelaw 2018 will introduce spatial closures in addition to those in effect from the Marine protected Areas Byelaw 2016 (including those in the Humber Estuary) to prohibit the use of bottom towed gear primarily in relation to the following:

- sub-tidal mixed sediment;
- sub-tidal mud (sub-features of the site);
- Biogenic reef (mussel beds and extensions to *Sabellaria spinulosa* closures in place under Marine protected Areas Byelaw 2016)

These have been assessed as being sensitive to bottom-towed-gear fishing. Spatial closures are set out in Appendices 2, 3 and 4. So as to be effective, closures are proposed which are as simple a shape as possible and do not necessarily follow the convoluted extent of sub-features identified above. As such, closures will also encompass some habitats and features which are not considered at risk of damage. The proposed byelaw includes provision for limited bottom towed gear fisheries to co-occur with mussel beds. An exemption is proposed to allow fisheries which are consented through the Wash Fishery Order 1992. No significant adverse effect on site integrity will occur as a result of such fisheries as these are assessed using a Habitats Regulation Assessment prior to commencement.

The byelaw will also require fishers to 'lash and stow' bottom towed gear such that it cannot readily be used when transiting closed areas. There is an exemption to this requirement to the effect that shrimp beams need only be lifted clear of the water if a vessel has been fishing up to the closed area or will be fishing immediately after leaving a closed area.

#### *Option 2 – Closure of Wash and North Norfolk Coast to shrimp fishing*

Closure of the site would meet the conservation objectives of the site but have disproportionate impacts on the industry and effectively end the UK's contribution to the markets in relation to brown shrimp, with circa 90% of the UK's catch coming from the Wash and North Norfolk Coast SAC. Therefore this option was not considered viable.

#### Monetised and non-monetised costs and benefits

##### **Option 0 – Do nothing option**

There are no monetised costs associated with the 'do nothing' option.

The key non-monetised costs relate to the impacts on ecosystem functioning resultant of continued fishing activity in the areas proposed to be closed. Impacts on ecosystem function is likely to lead to

impacts on the sustainability of the fishery and its productivity.

In addition, the 'do nothing' option is not in keeping with the requirements of the Habitats Directive and as such may lead to infraction proceedings being taken against the UK.

### **Option 1 – Shrimp Permit Byelaw 2018**

The key monetised costs associated with the proposed closures are the loss of fishing grounds.

#### *Impacts on Shrimp Fishery*

Eastern IFCA requires fishers to submit returns forms for each shrimp fishing trip within the Wash and North Norfolk Coast SAC under Byelaw 11 (Development of shellfish fisheries) of Eastern IFCA's Byelaws. This data has been used to estimate the level of fishing activity within each of the proposed closed areas. Marine Management Organisation (MMO) landings data has been used to determine the monetary impact of the closures.

Fishers provide information regarding the location of each tow during shrimp fishing activity. These are compared against the location of proposed closures. This provides a 'proportion' of total catch likely to be affected by each closures. MMO landings data for brown shrimp is then used to determine a monetised value associated with each closures (i.e. as a proportion of the total value). MMO landings data is not available at the same resolution as Eastern IFCA data. Landings data for International Council for the Exploration of the Sea (ICES) statistical rectangles 34F0 and 35F0 were used to estimate monetary values which will have the effect of overestimating impacts as these areas account for a much larger areas including the Lincolnshire coast.

The resolution of the Eastern IFAC data does not allow for an exact estimate as the grids do not correspond with the shape or size of closed areas (with some closed areas being smaller than a single grid box). Eastern IFCA data for 1<sup>st</sup> January to 31<sup>st</sup> December of 2016 and 2017 is used. MMO landings data from 2010 to 2016 is used to estimate economic impacts.

The low estimate considers fishing effort within closed areas except those associated with the proposed mussel bed closures (Appendix 2 – Chart 1). Shrimp fishing activity is not thought to occur over mussel beds (except perhaps inadvertently) however, a significant amount of fishing activity occurs within the grid boxes in which mussel beds are found (which accounts for 2.89% of the fishery). The low estimate also takes into account the lowest annual landed value of brown and pink shrimps between 2010 and 2016 (which is £584,525). The low estimate is £16,907.

The low cost estimate is likely to be an overestimate given that the landed value of catch takes into account fishing activity outside of the Wash and North Norfolk Coast SAC but the resolution of the landings data does not allow for excluding other areas from the assessment. Shrimp fishing grounds are known to vary annually as shrimps move to different areas (within the site). As such, it is conceivable that the impact of these closures in some years will be zero.

The high estimate considers closures over mussel beds in addition to other areas (which equates to 17.45% of the fishery in the Wash North Norfolk Coast SAC) and the highest annual value of landed catch (£2,668,788). The high cost estimate is therefore £465,734 per year. This is likely to be an overestimate because fishers are not thought to fish over mussel beds and because it includes landed value associated with shrimp fishing outside of the site whereas the fishing activity data only relates to fishing within the site. As above, shrimp grounds are thought to move during and between years. As

such, the potential cost of the measures could be more if shrimps were to relocate into a closed area.

The best estimate takes into account the average (during 2016 and 2017) fishing effort within closed areas except over closures associated with mussel beds. It also takes into account the average annual landed value of shrimps (between 2010 and 2016 inclusive). The best estimate is therefore £66,069 per year.

#### Impacts on 'other' fisheries

Use of bottom towed gear within the Wash and North Norfolk Coast SAC is thought to be very limited except in relation to shrimp fishing.

MMO landings data shows that between 2010 and 2016, 42 different species were caught within ICES rectangles 34F0, 34F1, 35F0 and 35F1. Excluding scallops and mussel (which are regulated through the Wash Fishery order within the MPA) and whelks (which are not caught with bottom towed gear and their inclusion in the MMO data is assumed to be a mistake), the average annual landed value is £21,341. The site is within these ICES rectangles although the site makes up only a small proportion of the site. The vast majority of this activity is associate with ICES Rectangle 35F0 which is likely to be a reflection of activity along the Lincolnshire coast and outside of the site. This is consistent with anecdotal reports of fishing activity.

As such, the high estimate annual cost is £39,010 which corresponds with the highest recorded annual landed value of 'other species' within associated ICES rectangles for the period 2010 to 2016 inclusive.

The low cost is zero which reflects that it is unlikely that the MPA represents important fishing grounds for these species and that the majority are thought to be caught on the Lincolnshire coast.

It is most likely that landings of 'other' species from within the MPA are actually only by-catch of the shrimp fishery. This cannot be distinguished from that which is caught intentionally however using the MMO landings data. As such the best estimate takes into account the average annual landed value (£21,341) for these ICES rectangles and applies the same fishing activity assessment as for the shrimp fishing impacts above (i.e. the average percentage of fishing activity effected, the average of which is 4.1%) with an estimated cost of £874 annually.

#### Costs to Eastern IFCA

Additional compliance activities will be required in addition to education and engagement. The cost of these are estimated to be £7,176 based on six additional sea patrols and 4 additional shore patrols. This is likely to be an underestimate with regards to the initial implementation of the measures during which time the risk of non-compliance is higher. In addition, the number of patrols will increase if risk associated with the fishery increases as directed through the Tactical Coordinating Group.

## Non-monetised costs

Table 2. showing the breakdown of costs associated with additional compliance needs resultant of introducing a new byelaw.

### Costs associated with 1 sea patrol

	employment		
Crew:-	cost	working days	cost per std 7.4 hour day
Skipper	1 33,760.00	225	150.04
Crew:-	3 29,410.00	227	388.68
Total cost			<hr/> 538.72
"on costs"			
Pension		21.50%	115.83
E'ers NI	12,156.97	226	53.79
			<hr/> 708.34
	annual cost	days at sea	
<u>Operation cost of vessel</u>		70	
Maintenance/refit	15,000.00		214.29
Insurance	3,000.00		42.86
			257.14
Total operation cost per day/trip			965.48
<b>6 additional sea patrols</b>			<b>5792.898</b>

### Costs associated with 1 shore patrol

	employment		
Crew:-	cost	working days	cost per std 7.4 hour day

### Pink shrimp fishery

Pink shrimp fisheries are anecdotally thought to have been worth as much as brown shrimp fisheries previously. At present, there is only a limited market and pink shrimp are landed as bycatch of the brown shrimp fishery and have limited value.

Fishers have indicated that the proposed closures effectively rule out any targeted pink shrimp fishery in the future as the proposed closures coincide with what were historically important pink shrimp fishing grounds. This cannot be monetised as data for this historic fishery is not available although it is anecdotally thought to have been worth as much as the current brown shrimp fishery.

### Changes in fishing behaviors

Displacement from the proposed closed areas may have the effect of intensifying effort on other shrimp grounds with an impact on the ecological functioning and sustainability of the shrimp fishery and associated habitats. Given that the level of fishing activity over the proposed closures is considered to be relatively low (circa 4%), displacement is likely to be limited..

### Costs to Eastern IFCA

Eastern IFCA intends to undertake monitoring to support the conclusions of the Habitat Regulation Assessment and ensure that adverse effects are not occurring within the site open to fishing. The associated cost cannot be monetised as ultimately the level of monitoring is likely to change annually.

## **Option 2 – Total closure of Wash and North Norfolk Coast MPA to bottom towed gear**

The pink and brown shrimp fisheries in the Eastern IFCA district are worth between £584,525 and £2,668,788 per annum. The vast majority of these fisheries are thought to occur within the Wash and North Norfolk Coast SAC although other notable areas are off the Lincolnshire coast and north of the MPA.

Eastern IFCA has undertaken an assessment of the impacts of shrimp fishing within the MPA and found that some habitats are very sensitive to shrimp fishing activity and require closure (to all bottom towed gear). Other habitats are found to be less sensitive although it is thought that fishing activity could impact these habitats if activity increased.

The potential impact of this option is likely to be underestimated by the landed value of catch. The factories which process the shrimp caught (both of which are based in King's Lynn) rely to a large degree on the shrimp market. The market price for the processed shrimp is likely to be much higher than the landed value and which includes a significant amount of export to foreign markets (primarily Netherlands). There are a significant number of tertiary jobs associated with this fishery and these processing factories (i.e. engineers, factory workers, delivery drivers).

Only a minor increase in fishing effort is anticipated as a result of displacement from the closed areas and fishing at the current levels is assessed to be in keeping with the conservation objectives of the site. Closure of the whole site would meet the conservation objectives however, it is likely to cause a large impact on stakeholders with little or no additional benefit to site integrity. As such, it is considered disproportionate to close the entire site to shrimp fishing activity as the associated risks to site integrity

can be adequately mitigated through effort limitations as required.

### Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

This assessment has used the following information:

- MMO landings data (2010 to 2017 inclusive)
- Eastern IFCA shrimp fishing database (based on returns data)
- Anecdotal information provided by fishers (during informal engagement)

The analysis has considered the best available evidence to estimate monetised costs where the data will allow such. This has included extensive consultation with stakeholders who are likely to be impacted.

Concerns have been raised by the shrimp fishing industry in relation to the closures and in particular, the closures associated with the north Norfolk coast and central part of the Wash as these include some important shrimp fishing grounds. The shape and size of closures have taken the informal consultation into account where possible whilst ensuring that the mandated protective effect of the measures are not diminished. A summary of how these concerns have been taken into account is set out in the 'how we listened document' which is found on the Eastern IFCA website<sup>3</sup>.

### Risks and assumptions

There are limitations in relation to the data used in the above analysis. Eastern IFCA requires shrimp fishers to provide certain fisheries data for each fishing trip however there is known to be a level of non-compliance with this requirement. This is mitigated to a degree given that the assessment only uses this information to estimate relative importance of certain areas as shrimp fishing ground (i.e. number of tows as a proportion of the total) rather than relying on the data to estimate the actual fishing effort in an area.

A combination of Eastern IFCA shrimp fishing data and MMO landings data is used to estimate cost. The resolution of both of these is less than that of the closures. As a result the costs potentially over-estimate the impacts of the measures.

In addition, as set out above, shrimp fishing grounds are known to move within and between years. As such, the importance of the areas closed to fishing are likely to change over time. The data available to determine the importance of fishing grounds only relates to two years (2016 and 2017) and has its own limitations (as set out above) and as such the actual cost to the industry may change.

### Summary and preferred option with description of implementation plan

The preferred option is Option 1 – Marine Protected Areas Byelaw 2018. This would close certain areas to use of bottom towed gear and require this gear to be lashed and stowed when transiting restricted areas with an exception in certain circumstances. This option would permit a mussel fishery in the Wash

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<sup>3</sup> [http://www.eastern-ifca.gov.uk/wp-content/uploads/2018/07/2018\\_07\\_23\\_how\\_we\\_listened.pdf](http://www.eastern-ifca.gov.uk/wp-content/uploads/2018/07/2018_07_23_how_we_listened.pdf)

using dredges under the Wash Fishery Order 1992 (which would be subject to a Habitat Regulation Assessment and as such would not have an impact on site integrity).

These closures are in addition to the closures already implemented in the Marine Protected areas Byelaw 2016.

The proposed measures will have the effect of protecting the Wash and North Norfolk Coast SAC from the effects of shrimp fishing activity but minimise the impact on industry by closing only those areas which will be impacted. Fishing within the rest of the site will be managed through the use of a separate proposed byelaw (Shrimp permit Byelaw 2018) which will ensure there are no impacts on site integrity in relation to habitats and species outside of the restricted areas.

To implement these measures, fishers will be made aware of the additional closures through updates to the Eastern IFCA website and targeted dialogue with shrimp fishers. Officers will engage with the industry to educate and engage as per Eastern IFCA's Enforcement Policy and Regulation Strategy<sup>4</sup>.

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<sup>4</sup> <http://www.eastern-ifca.gov.uk/wp-content/uploads/2016/03/RC-Strategy.pdf>

## Annex A: Policy and Planning

Which marine plan area is the MPA and management measure in?

East Inshore Marine Plan

Have you assessed whether the decision on this MPA management measure is in accordance with the Marine Policy Statement and any relevant marine plan?

- Yes

If so, please give details of the assessments completed:

Marine Plan Policy	Policy Text	Policy screened in or out from assessment	Assessment of plan policy
<b>Policy AGG1</b>	Proposals in areas where a licence for extraction of aggregates has been granted or formally applied for should not be authorised unless there are exceptional circumstances.	×	Does not apply.
<b>Policy AGG2</b>	Proposals within an area subject to an Exploration and Option Agreement with The Crown Estate should not be supported unless it is demonstrated that the other development or activity is compatible with aggregate extraction or there are exceptional circumstances.	×	Does not apply.
<b>Policy AGG3</b>	Within defined areas of high potential aggregate resource, proposals should demonstrate in order of preference: a) that they will not, prevent aggregate extraction b) how, if there are adverse impacts on aggregate extraction, they will minimise these c) how, if the adverse impacts cannot be minimised, they will be mitigated d) the case for proceeding with	×	Does not apply.

	the application if it is not possible to minimise or mitigate the adverse impacts		
<b>Policy AQ1</b>	<p>Within sustainable aquaculture development sites (identified through research), proposals should demonstrate in order of preference:</p> <p>a) that they will avoid adverse impacts on future aquaculture development by altering the sea bed or water column in ways which would cause adverse impacts to aquaculture productivity or potential</p> <p>b) how, if there are adverse impacts on aquaculture development, they can be minimised</p> <p>c) how, if the adverse impacts cannot be minimised they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	×	
<b>Policy BIO1</b>	<p>Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial).</p>	✓	<p>Eastern IFCA undertook a Habitats Regulations Assessment with regards to the potential impacts of shrimp fishing on site integrity within the Wash and North Norfolk Coast SAC. The assessment concluded that shrimp fishing is likely to have an adverse effect on the site in relation to sub-tidal mud and sub-tidal mixed sediment sub-features. In addition, intertidal mussel beds have been identified as a 'red-risk' interaction which</p>

			requires closure under Defra's revised approach to fisheries management in MPA. The proposed byelaw restricts fishing activity in the MPA to the extent that the site is impacted.
<b>Policy BIO2</b>	Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.	×	
<b>Policy CAB1</b>	Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.	×	Does not apply.
<b>Policy CC1</b>	Proposals should take account of: <ul style="list-style-type: none"> <li>• how they may be impacted upon by, and respond to, climate change over their lifetime and</li> <li>• how they may impact upon any climate change adaptation measures elsewhere during their lifetime</li> </ul> Where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to how the proposal will reduce such impacts.	✓	Protecting site integrity of the Wash and north Norfolk Coast SAC will increase the resilience of the site and its features such that it can better withstand natural phenomenon and events related to climate change.

<p><b>Policy CC2</b></p>	<p>Proposals for development should minimise emissions of greenhouse gases as far as is appropriate. Mitigation measures will also be encouraged where emissions remain following minimising steps. Consideration should also be given to emissions from other activities or users affected by the proposal.</p>	<p>✓</p>	<p>The byelaw will potentially increase emissions as fishers have to travel further (including potentially outside of the Wash and North Norfolk Coast SAC) to fish for shrimp. However, the degree to which this will occur is likely to be limited (displacement estimated as 4%) as parts of the MPA remain open to fishing (although subject to effort management through the Shrimp Permit Byelaw 2018).</p>
<p><b>Policy CCS1</b></p>	<p>Within defined areas of potential carbon dioxide storage,(mapped in figure 17)proposals should demonstrate in order of preference:  a) that they will not prevent carbon dioxide storage  b) how, if there are adverse impacts on carbon dioxide storage, they will minimise them  c) how, if the adverse impacts cannot be minimised, they will be mitigated  d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy CCS2</b></p>	<p>Carbon Capture and Storage proposals should demonstrate that consideration has been given to the re-use of existing oil and gas infrastructure rather than the installation of new infrastructure (either in depleted fields or in active fields via enhanced hydrocarbon recovery).</p>	<p>×</p>	<p>Does not apply.</p>

<p><b>Policy DD1</b></p>	<p>Proposals within or adjacent to licensed dredging and disposal areas should demonstrate, in order of preference</p> <p>a) that they will not adversely impact dredging and disposal activities</p> <p>b) how, if there are adverse impacts on dredging and disposal, they will minimise these</p> <p>c) how, if the adverse impacts cannot be minimised they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	<p>Does not apply</p>
<p><b>Policy DEF1</b></p>	<p>Proposals in or affecting Ministry of Defence Danger and Exercise Areas should not be authorised without agreement from the Ministry of Defence.</p>	<p>×</p>	<p>Does not apply</p>
<p><b>Policy EC1</b></p>	<p>Proposals that provide economic productivity benefits which are additional to Gross Value Added currently generated by existing activities should be supported.</p>	<p>✓</p>	<p>The shrimp fishery within the East Inshore Marine Plan Area are of national importance representing circa 90% of UK shrimp landings. The introduction of discrete spatial closures in relation to the fishery will allow for a longer-term, sustainable fishery to be continued without adverse impacts on the MPA.</p>
<p><b>Policy EC2</b></p>	<p>Proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas.</p>	<p>✓</p>	<p>At least two processor plants (which process shellfish) are known to process shrimp catches from across the district and further – enabling a productive shrimp fishery will support jobs in addition to fishing activity (e.g. factory cleaners, admin etc.).</p>

<p><b>Policy EC3</b></p>	<p>Proposals that will help the East marine plan areas to contribute to offshore wind energy generation should be supported.</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy ECO1</b></p>	<p>Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.</p>	<p>✓</p>	<p>The proposed closures will support a healthy marine habitat which in turn, should have a benefit on the biodiversity of the wider ecosystem.</p>
<p><b>Policy ECO2</b></p>	<p>The risk of release of hazardous substances as a secondary effect due to any increased collision risk should be taken account of in proposals that require an authorisation.</p>	<p>✓</p>	<p>No additional collision risk identified as a result of the proposed byelaw.</p>
<p><b>Policy FISH1</b></p>	<p>Within areas of fishing activity, proposals should demonstrate in order of preference:  a) that they will not prevent fishing activities on, or access to, fishing grounds  b) how, if there are adverse impacts on the ability to undertake fishing activities or access to fishing grounds, they will minimise them  c) how, if the adverse impacts cannot be minimised, they will be mitigated  d) the case for proceeding with their proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>✓</p>	<p>The purpose of the byelaw is to prohibit shrimp fishing from discrete spatial areas within the Wash and North Norfolk Coast SAC for the purpose of meeting requirements of the Habitats Directive. Closures are limited to the most sensitive sub-features where adverse effect from the fishing activity could not be ruled out. For the purpose of creating effective closures, proposed shapes of these areas are as simple as possible and as such do encompass some sub-features which are not considered at risk of damage to the effect of having an impact on site integrity.</p>

<b>Policy FISH2</b>	<p>Proposals should demonstrate, in order of preference:</p> <p>a) that they will not have an adverse impact upon spawning and nursery areas and any associated habitat</p> <p>b) how, if there are adverse impacts upon the spawning and nursery areas and any associated habitat, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised they will be mitigated</p> <p>d) the case for proceeding with their proposals if it is not possible to minimise or mitigate the adverse impacts</p>	✓	<p>Spatial closures will have the effect of protecting habitats determined as potentially being impacted by bottom-towed-gear fishing activity. Some displacement may occur (estimated as 4% of total effort) however it is unknown as to whether this will be displaced onto spawning or nursery areas.</p>
<b>Policy GOV1</b>	<p>Appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa.</p>	✗	<p>Does not apply.</p>
<b>Policy GOV2</b>	<p>Opportunities for co-existence should be maximised wherever possible.</p>	✗	<p>Does not apply.</p>
<b>Policy GOV3</b>	<p>Proposals should demonstrate in order of preference:</p> <p>a) that they will avoid displacement of other existing or authorised (but yet to be implemented) activities</p> <p>b) how, if there are adverse impacts resulting in displacement by the proposal, they will minimise them</p> <p>c) how, if the adverse impacts resulting in displacement by the proposal, cannot be minimised, they will be mitigated against or</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts of displacement</p>	✓	<p>Proposed spatial closures are estimated to displace 4% of shrimp fishing activity which currently takes place within The Wash and North Norfolk Coast SAC.</p>

<p><b>Policy MPA1</b></p>	<p>Any impacts on the overall Marine Protected Area network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.</p>	<p>✓</p>	<p>The byelaw will implement spatial closures with the effect of mitigating impacts on site integrity on the Wash and North Norfolk Coast SAC.</p>
<p><b>Policy OG1</b></p>	<p>Proposals within areas with existing oil and gas production should not be authorised except where compatibility with oil and gas production and infrastructure can be satisfactorily demonstrated.</p>	<p>X</p>	<p>Does not apply.</p>
<p><b>Policy OG2</b></p>	<p>Proposals for new oil and gas activity should be supported over proposals for other development.</p>	<p>X</p>	<p>Does not apply.</p>
<p><b>Policy PS1</b></p>	<p>Proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised in International Maritime Organization designated routes.</p>	<p>X</p>	<p>Does not apply.</p>

<p><b>Policy PS2</b></p>	<p>Proposals that require static sea surface infrastructure that encroaches upon important navigation routes (see figure 18) should not be authorised unless there are exceptional circumstances. Proposals should:</p> <ul style="list-style-type: none"> <li>a) be compatible with the need to maintain space for safe navigation, avoiding adverse economic impact</li> <li>b) anticipate and provide for future safe navigational requirements where evidence and/or stakeholder input allows and</li> <li>c) account for impacts upon navigation in-combination with other existing and proposed activities</li> </ul>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy PS3</b></p>	<p>Proposals should demonstrate, in order of preference:</p> <ul style="list-style-type: none"> <li>a) that they will not interfere with current activity and future opportunity for expansion of ports and harbours</li> <li>b) how, if the proposal may interfere with current activity and future opportunities for expansion, they will minimise this</li> <li>c) how, if the interference cannot be minimised, it will be mitigated</li> <li>d) the case for proceeding if it is not possible to minimise or mitigate the interference</li> </ul>	<p>X</p>	<p>Does not apply.</p>
<p><b>Policy SOC1</b></p>	<p>Proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported.</p>	<p>X</p>	<p>Does not apply.</p>

<p><b>Policy SOC2</b></p>	<p>Proposals that may affect heritage assets should demonstrate, in order of preference:</p> <p>a) that they will not compromise or harm elements which contribute to the significance of the heritage asset</p> <p>b) how, if there is compromise or harm to a heritage asset, this will be minimised</p> <p>c) how, where compromise or harm to a heritage asset cannot be minimised it will be mitigated against or</p> <p>d) the public benefits for proceeding with the proposal if it is not possible to minimise or mitigate compromise or harm to the heritage asset</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy SOC3</b></p>	<p>Proposals that may affect the terrestrial and marine character of an area should demonstrate, in order of preference:</p> <p>a) that they will not adversely impact the terrestrial and marine character of an area</p> <p>b) how, if there are adverse impacts on the terrestrial and marine character of an area, they will minimise them</p> <p>c) how, where these adverse impacts on the terrestrial and marine character of an area cannot be minimised they will be mitigated against</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	<p>Does not apply.</p>

<p><b>Policy TIDE1</b></p>	<p>In defined areas of identified tidal stream resource (see figure 16), proposals should demonstrate, in order of preference:</p> <p>a) that they will not compromise potential future development of a tidal stream project</p> <p>b) how, if there are any adverse impacts on potential tidal stream deployment, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	<p>Does not apply.</p>
<p><b>Policy TR1</b></p>	<p>Proposals for development should demonstrate that during construction and operation, in order of preference:</p> <p>a) they will not adversely impact tourism and recreation activities</p> <p>b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised, they will be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>	<p>×</p>	
<p><b>Policy TR2</b></p>	<p>Proposals that require static objects in the East marine plan areas, should demonstrate, in order of preference:</p> <p>a) that they will not adversely impact on recreational boating routes</p> <p>b) how, if there are adverse impacts on recreational boating routes, they will minimise them</p> <p>c) how, if the adverse impacts cannot be minimised, they will</p>	<p>×</p>	

	<p>be mitigated</p> <p>d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts</p>		
<b>Policy TR3</b>	Proposals that deliver tourism and/or recreation related benefits in communities adjacent to the East marine plan areas should be supported.	X	Does not apply.
<b>Policy WIND1</b>	<p>Developments requiring authorisation, that are in or could affect sites held under a lease or an agreement for lease that has been granted by The Crown Estate for development of an Offshore Wind Farm, should not be authorised unless</p> <p>a) they can clearly demonstrate that they will not compromise the construction, operation, maintenance, or decommissioning of the Offshore Wind Farm</p> <p>b) the lease/agreement for lease has been surrendered back to The Crown Estate and not been re-tendered</p> <p>c) the lease/agreement for lease has been terminated by the Secretary of State</p> <p>d) in other exceptional circumstances</p>	×	Does not apply.
<b>Policy WIND2</b>	Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.	×	Does not apply.

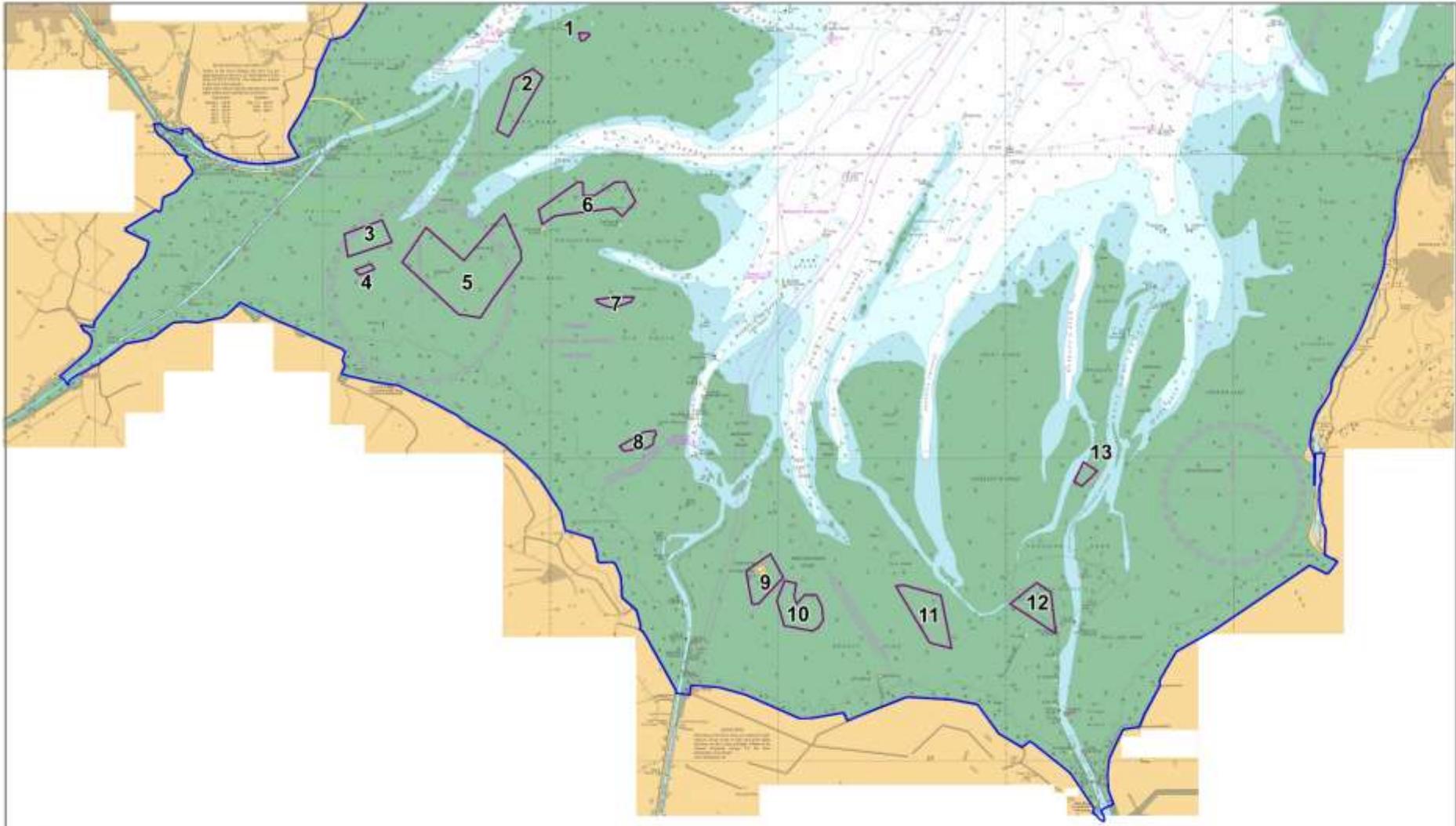


Chart 1: The Wash Mussel Beds - Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- The Wash and North Norfolk Coast SAC boundary

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 Projection: Lat Long WSG84  
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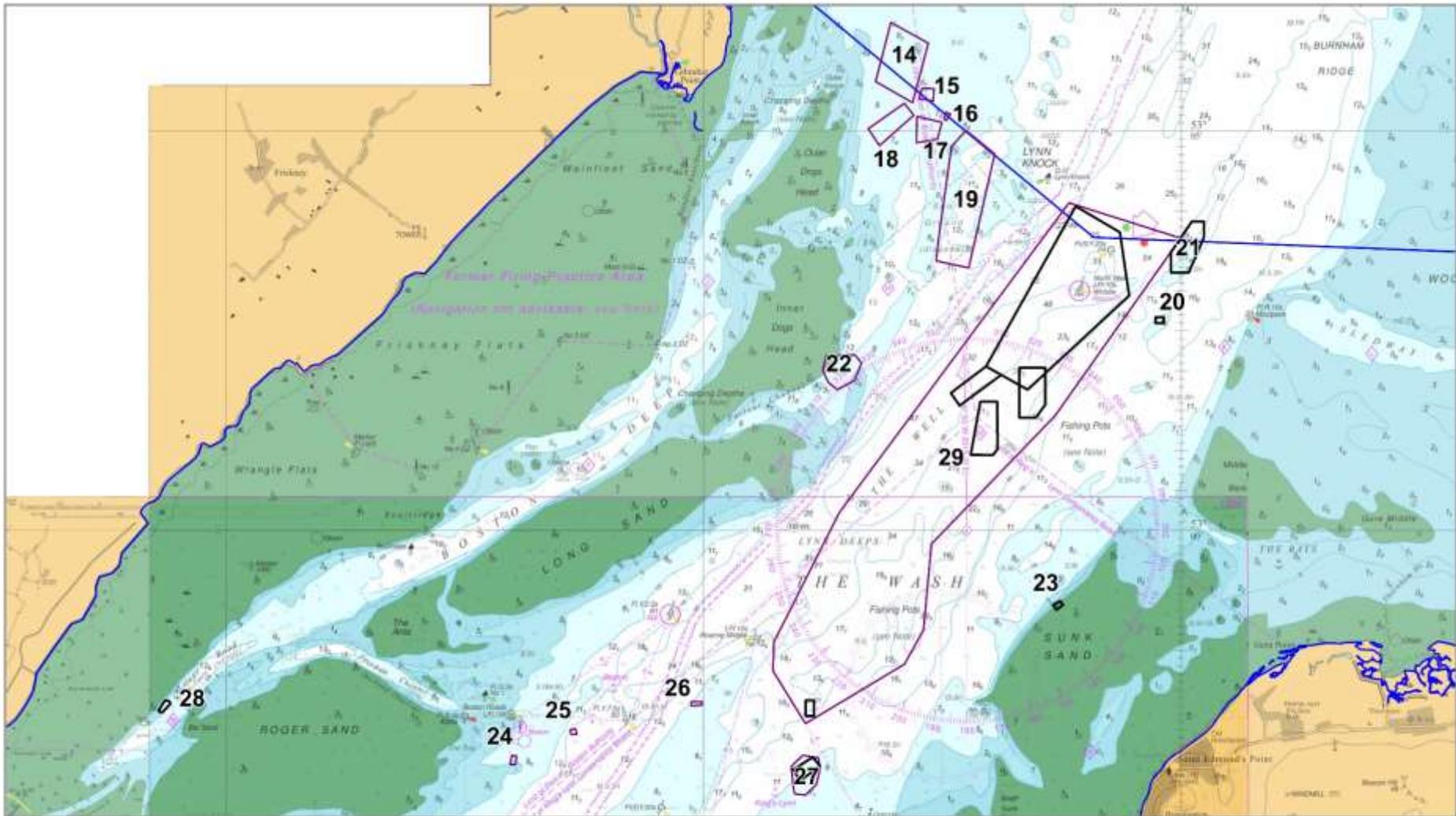
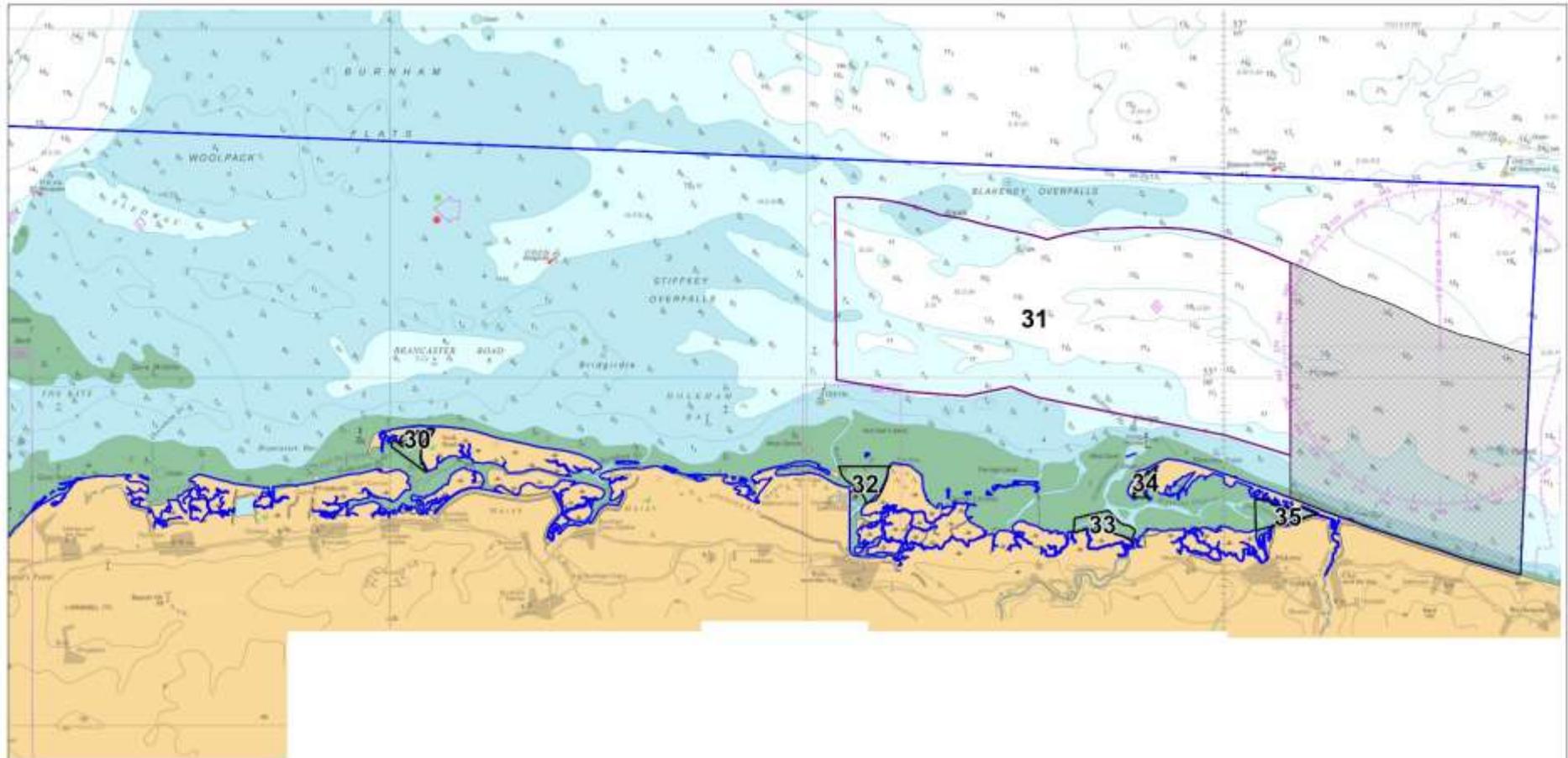


Chart 2: The Wash Central & Northern - Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- The Wash and North Norfolk Coast SAC boundary
- Existing Marine Protected Area closures

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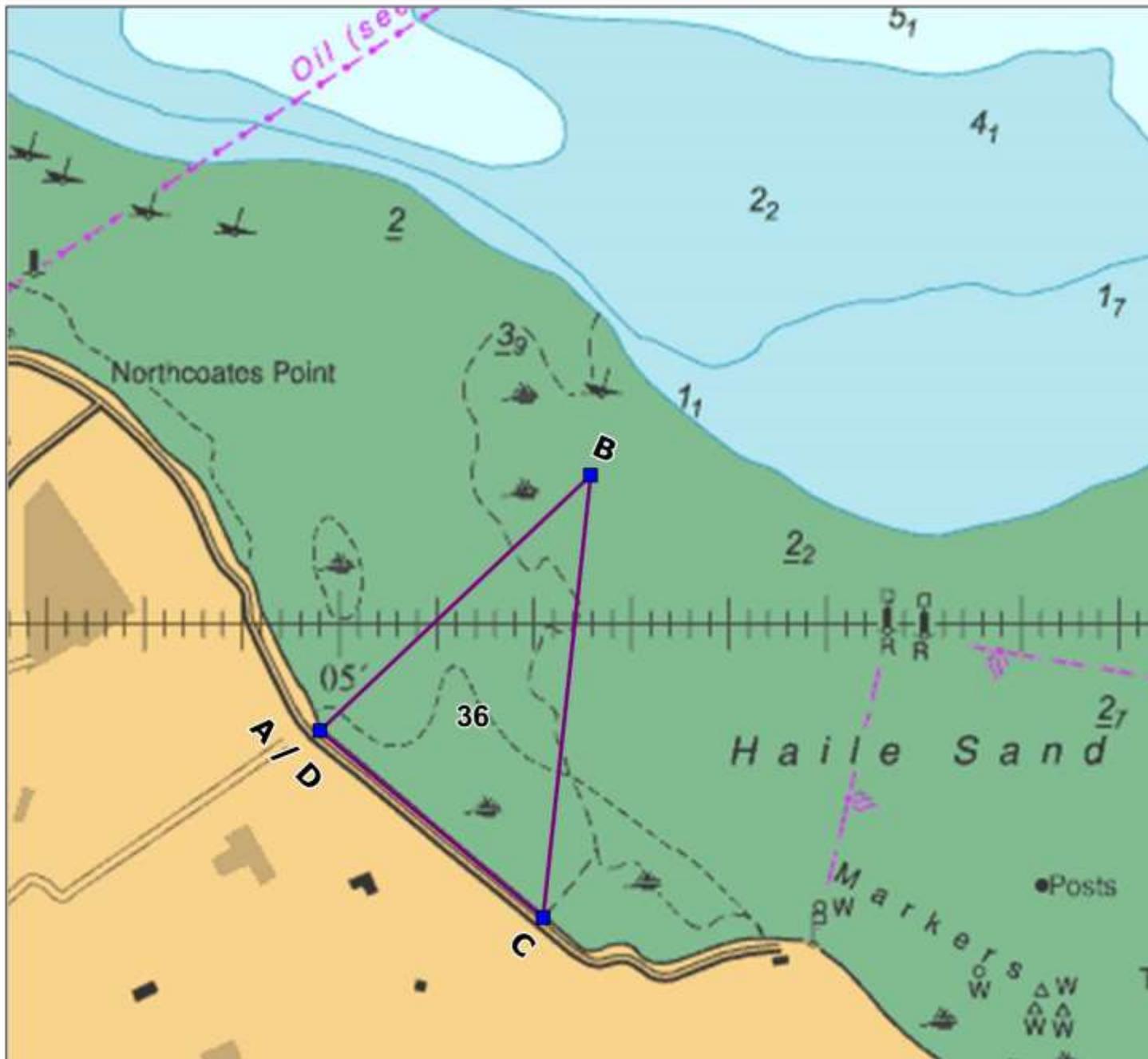
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Chart 3: North Norfolk Coast Proposed Closures to Bottom Towed Gear

- Proposed Marine Protected Area closures
- Existing Marine Protected Area closures
- Existing Byelaw 12 Trawling Restricted Area
- The Wash and North Norfolk Coast Coast SAC boundary

Date: 26/10/18  
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 Projection: Lat Long WGS84  
 EMS boundary: JNCC download -  
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### Marine Protected Areas Byelaw 2018

Chart 4: *Zostera* (eelgrass) -

Fishing restrictions within the restricted area a person must not:

- a) fish with bottom towed gear;
- b) fish by handwork;
- c) fish by crab tiling.

Restricted area

Location points

Decimal Degrees

Point	Latitude	Longitude
A	53.494415°	0.081682°
B	53.507329°	0.104793°
C	53.484969°	0.100740°
D	53.494415°	0.081682°

Degrees and Decimal Minutes

Point	Latitude	Longitude
A	53° 29.67' N	00° 04.90' E
B	53° 30.44' N	00° 06.29' E
C	53° 29.10' N	00° 06.04' E
D	53° 29.67' N	00° 04.90' E

Area = 170.8 hectares



Date: 30/10/18 Drawn by: SC  
 Projection: Lat Long WSG84  
 Data sources: EIFCA  
 Ref: MPA\_Byelaw\_2018\_Chart\_4.wor

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