| | |
|---|---|
| **Title:** Cromer Shoal Chalk Beds Byelaw 2023<br>**IA No:** EIFCA0014<br>**RPC Reference No: n/a**<br>**Lead department or agency:** Eastern Inshore Fisheries and Conservation Authority<br>**Other departments or agencies: Marine Management Organisation, Natural England** | **Impact Assessment (IA)**<br>**Date:** 20/02/2023<br>**Stage:** Development<br>**Source of intervention:** Domestic<br>**Type of measure:** Secondary Legislation<br>**Contact for enquiries: Julian Gregory (CEO), eastern IFCA,** mail@eastern-ifca.gov.uk**, 01553 775321** |

## Summary: Intervention and Options

**RPC Opinion:** RPC Opinion Status

| **Cost of Preferred (or more likely) Option** (in 2019 prices) | | | |
|---|---|---|---|
| **Total Net Present Social Value** | **Business Net Present Value** | **Net cost to business per year** | **Business Impact Target Status** |
| -£2,602,542 | -£24,914 | £2,894 | Non-qualifying provision |

**What is the problem under consideration?**

The Cromer Shoal Chalk Beds Marine Conservation Zone was designated to protect marine habitats and a feature of geological interest within the site. The area covered by the designation also constitutes important fishing grounds for pot-based fisheries. Advice has been provided by Natural England to the effect that if fishing activity is allowed to continue unchecked then cumulative impacts from potting over time could cause significant risk to designated features and therefore the conservation objectives of the site. The advice indicates that management is required as mitigation.

**Why is government action or intervention necessary?**

Eastern Inshore Fisheries and Conservation Authority is required to seek to ensure that the conservation objectives of the site are furthered (Marine and Coastal Access Act 2009 (c.23)) and must have regard to advice from Natural England as the appropriate statutory conservation body under s.126 of the same Act.

**What are the policy objectives of the action or intervention and the intended effects?**

The intended outcome is to enable an adaptive risk management approach to mitigating impacts of pot-based fishing within the site to the effect that the conservation objectives are furthered. The desired effects are that fishing using pots within the site may only take place under the authority of a permit, issued by Eastern IFCA, and that conditions and endorsements can be attached to permits which implement restrictions that mitigate impacts as identified through an adaptive risk management approach. Success will be the implementation of only such mitigation as required to meet the conservation objectives of the site whilst minimising impacts on fishery stakeholders. The effectiveness (success) of the measures will be identified through further research at the site and monitoring.

**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 – Voluntary scheme

Option 2 – Ban fishing activity on the rugged chalk using an IFCA byelaw.

Option 3 - Cromer Shoal Chalk Beds Byelaw 2023 (preferred option) – Implement a permitting byelaw under the Marine and Coastal Access Act 2009 (c.23) which enables the implementation of flexible management measures for the pot-based fisheries in Cromer Shoal Chalk Beds MCZ. This is the preferred option because it will enable flexible management of fishing activity to mitigate risks to the site's conservation objectives while offering the greatest potential to minimise the social and economic costs of an approach that is either too precautionary or not insufficiently so. A regulatory approach is required to address the level of risk association with the fisheries in relation to site's conservation objectives.

**Will the policy be reviewed?** It will be reviewed. **If applicable, set review date: March/2028**

| | | | | |
|---|---|---|---|---|
| Is this measure likely to impact on international trade and investment? | | No | | |
| Are any of these organisations in scope? | **Micro** Yes | **Small** Yes | **Medium** No | **Large** No |
| What is the $CO_2$ equivalent change in greenhouse gas emissions? (Million tonnes $CO_2$ equivalent) | | **Traded:** N/A | **Non-traded:** 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 SELECT SIGNATORY: ..... Date: .....

# Summary: Analysis & Evidence

Policy Option 1

**Description:**

**FULL ECONOMIC ASSESSMENT**

| Price Base Year 2019 | PV Base Year 2020 | Time Period Years 10 | Net Benefit (Present Value (PV)) (£) | | |
|---|---|---|---|---|---|
| | | | **Low:** -2,602,542 | **High:** -2,578,476 | **Best Estimate: -2,583,988** |

| COSTS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---|---|---|---|---|
| **Low** | 4240 | 10 | 524,121 | **2,578,476** |
| **High** | 15,900 | | 525,563 | **2,602,542** |
| **Best Estimate** | 9752 | | 524,121 | **2,583,988** |

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

The key monetised costs to business relate to permits fees (annually £53.36 per permit) and a requirement to tag pots (transitional at circa £295.5 per vessel). The scale of the monetised impact is considered low compared to the value of fishing within the site (estimated to be £1,057,093 between 33 vessels). The majority of the monetised costs fall to Eastern IFCA and relate to monitoring to ensure effectiveness of the measures and the ongoing delivery of Adaptive Risk Management within the Cromer Shoal MCZ.

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

The key non-monetised cost relates to compliance activity and promulgation of the measures.

| BENEFITS (£m) | Total Transition (Constant Price) | Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---|---|---|---|---|
| **Low** | n/a | 10 | n/a | **n/a** |
| **High** | n/a | | n/a | **n/a** |
| **Best Estimate** | n/a | | n/a | **n/a** |

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

No monetised benefits can be estimated

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

The key non-monetised benefits relate to the protection of the Cromer Shoal MCZ and enabling the site to contribute to ecosystem services and a healthy and resilient marine environment.

| Key assumptions/sensitivities/risks | Discount rate (%) | 3.5 |
|---|---|---|

The key assumption is that measure can be developed and introduced under the byelaw which have a protective effect on the site. The key risk is that the introduction of a permit system leads to changes in behaviours which negatively impact the site, in particular the potential for increases in effort.

**BUSINESS ASSESSMENT (Option 1)**

| Direct impact on business (Equivalent Annual) £: | | | Score for Business Impact Target (qualifying provisions only) £m: |
|---|---|---|---|
| **Costs: 2894.4** | **Benefits: 0** | **Net: 2894.4** | n/a |

## Table of Contents

# 1. Policy Background

## 1.1. Background

1.1.1. Cromer Shoal Chalk Beds Marine Conservation Zone (hereafter the MCZ) was designated as part of the Government's 2nd tranche of MCZ designations in 2016 to protect marine habitats and a feature of geological interest within the site.[1] The site is located 200 metres from the shore of the North Norfolk Coast. It begins just west of Weybourne and ends at Happisborough, extending around 10 km out to sea and covering an area of 316 km$^2$. The MCZ forms part of the United Kingdom's contribution to an international network of protected sites that is intended to help to deliver the government's vision of clean, healthy, safe, productive and biologically diverse oceans and seas.[2]

1.1.1. The MCZ exhibits some of the best examples of subtidal chalk beds in Europe. These occur in the form of flat plains, ridges, gullies and undulations of chalk, which are of particular scientific interest because they occur in a part of the Southern North Sea that predominantly contains soft sediment habitats.[3] The more complex, outcropping chalk (referred to locally as the 'rugged' chalk) is currently understood to occur in the inshore parts of the MCZ, roughly 1 nautical mile out to sea. Rugged chalk is associated with higher levels of biodiversity than flat rock or sediment seabed types and supports a wide range of organisms by for instance providing shelter for spawning, foraging and refuge from predators.[4] Among the wide variety of organisms supported by the chalk structures are the commercially targeted Brown crab (*Cancer pagurus)* and European lobster (*Homarus gammarus*).

1.1.2. Edible crab and lobster have been traditionally fished, typically using pots, in the area which now encompasses the MCZ for many generations, with some fishers able to trace eight generations within the fishery. While there are no exact records of the earliest catches of crabs and lobsters from the Norfolk coast, it is likely that the fishery has existed since the early parts of the 18th century. The earliest record is thought to be in 'A Guide about Cromer', published in 1800 by Edmond Burtell who describes, 'Lobsters, crabs, whiting, cod-fish and herring are all caught here (Cromer) in the finest perfection'.[5] Intimately intertwined with family histories and local traditions, the fisheries are a defining feature of the cultural heritage of North Norfolk and the sense of place and well-being of its coastal communities.[6]

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[1] Cromer Shoal Chalk Beds Marine Conservation Zone Designation Order 2016, 2016/4. Available at: https://www.legislation.gov.uk/ukmo/2016/4/contents/created.

[2] UK Marine Policy Statement (March 2011), p. 10. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf#:~:text=This%20Marine%20Policy%20Statement%20%28MPS%29%20is%20the%20framework,of%20the%20Marine%20and%20Coastal%20Access%20Act%202009.

[3] Natural England, *Human impacts on Cromer Shoal Chalk Beds MCZ: Chalk complexity and population dynamics of commercial crustaceans* (October 2020), Natural England Research Report RR04412, p. 1. Hereafter: Natural England Research Report RR04412. Available at: http://publications.naturalengland.org.uk/publication/4884193307000832.

[4] Natural England Research Report RR04412 (n3), p. 3.

[5] Ministry of Agriculture, Fisheries and Food, *The Norfolk Crab Fishery* (July 1966), p.6. Available at: https://www.cefas.co.uk/publications/lableaflets/lableaflet12.pdf.

[6] See for example, Carole s. White, *Symbols of Resilience and Contested Place Identity in the Coastal Fishing Towns of Cromer and Sheringham, Norfolk, UK: Implications for Social Wellbeing (*2018). Available at: https://www.researchgate.net/publication/319067234_Symbols_of_Resilience_and_Contested_Place_Identity_in_the_Coastal_Fishing_Towns_of_Cromer_and_Sheringham_Norfolk_UK_Implications_for_Social_Wellbeing.

1.1.3. Within the Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) district, where diversification opportunities are limited because of limited species availability and the additional pressures of species caps on national fishing licences, edible crab and lobster potting fisheries constitute some of the most important fisheries. The annual average first sale value of the edible crab and lobster fisheries operating within the district is estimated at £964,106 and £889,132 respectively, supporting circa 60 vessels, [7] with fishing activity concentrated around the North Norfolk coast.

1.1.4. According to Eastern IFCA officer observations and fisher information, circa half of the district's potting vessels rely on fishing grounds located within the MCZ and launch from Cromer and surrounding beaches and ports. These are typically vessels under 10 metres in length and are often worked single-handed. Most fishers working from these areas rely on the crab and lobster fisheries as their primary source of income. The values quoted are also likely underestimates as they exclude catch which is sold directly to the public. This is usually where the fisher sells catch to the public themselves without the involvement of a registered buyer and commonly occurs along the North Norfolk coast. They also exclude the wider contributions to the area's longshore economy where in addition to local fishing livelihoods, the fisheries support a local seafood processing factory, restaurants, markets and tourism.

## 1.2. Problem Under Consideration

1.2.1. In 2020 Eastern IFCA received advice from Natural England, the government's statutory nature conservation adviser, outlining that Natural England considers active potting, the storage of pots on the chalk, and lost gear to each be hindering the conservation objectives of the site.[8] Storage of pots and lost gear were considered to create the most risk due to the prolonged exposure and interaction with sensitive features. Natural England advised that management of fishing activity on the rugged chalk would be required but that this would not need to be an outright ban of potting on the rugged chalk, due to the limitations of the available data. In view of the circumstances, the advice was for Eastern IFCA to undertake further scientific study in partnership as part of an Adaptive Risk Management (ARM) approach[9] as this has the potential to deliver more appropriate and proportionate evidence-based management and allow Eastern IFCA to work more effectively with the fishing industry.

1.2.2. Since receiving the advice, Eastern IFCA has, together with partners and stakeholders, established four interconnected bodies to carry the necessary work forward.[10] In accordance with their specific mandates (as outlined in the terms of reference) these bodies actively contribute to the development of research and management measures through a collaborative approach that seeks to make use of the best available evidence:

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[7] According to a MMO data release ATI2966, 10/01/2023. Based on value f landed catch caught from within the following ICES statistical rectangles: 33F1, 34F0, 34F1, 35F0, 35F1. 32F1 was not included in the estimate as the vast majority of the statistical rectangle falls outside of the Eastern IFC district. With the exception of 34F0, the ICES statistical rectangles used include area outside of the Eastern IFC district.

[8] See Appendix 1.

[9] ARM is an iterative approach to fisheries management where measures are implemented, trialled and adapted through monitoring and research. The approach enables management to be modified as we improve our understanding of ecosystem responses to human interventions. Accordingly, the approach is particularly suited to management of dynamic areas and/or areas where there is uncertainty or an incomplete understanding of the impacts of fishing activity on the seabed/habitats. For more information please see, *Developing a participatory approach to the management of fishing activity in UK offshore Marine Protected Area: Review of the current context of Adaptive Risk Management* (July 2019). Available at: https://data.jncc.gov.uk/data/80152204-c084-4b5c-8516-c5cde4a63318/Current-context-of-Adaptive-Risk-Management-review-V1.0.pdf.

[10] See Eastern IFCA website, *Implementing ARM in the MCZ*: https://www.eastern-ifca.gov.uk/draft-page-implementing-arm-in-the-mcz/.

i. a Project Board (formally Steering Group) is responsible for the overall management and coordination of the delivery of the ARM approach;

ii. A Research & Development Task & Finish Group is responsible for the development of research to inform management decisions;

iii. A Management Task & Finish Group is responsible for developing and proposing management solutions for mitigating risks to the site's conservation objectives; and

iv. A Stakeholder Group, coordinated by Agents of Change, aims to help increase community connection and inclusion in local decision making, to support management outcomes that work for society and sea.

1.2.3. Voluntary management measures were introduced to mitigate impacts from lost and stored gear to the site. These were developed collectively and in consultation with stakeholders.[11] Research meanwhile has focused on habitat mapping to inform management areas, assessing impacts of potting gear on sensitive features, mapping fishing activity using trackers voluntarily installed by fishers, and developing adaptive gear trials.[12] Research has included collaboration with fishing industry to increase information on fishing activity through a voluntary tracker programme. While voluntary measures have provided some mitigation, they do not currently address the impacts from active potting. Moreover, voluntary management is often insufficient to control the impacts of damaging activities to sensitive features in the face of stronger economic incentives.[13] Section 1.3 (rationale for intervention) provides further detail on the need for regulatory intervention to address identified market failures. Such regulatory intervention can complement existing voluntary mechanisms, to fill the gaps where monitoring suggests that voluntary routes are insufficient.

1.2.4. Eastern IFCA completed a potting assessment in 2022 which concluded that we cannot rule out a risk of pressures resulting from fishing activity hindering the conservation objectives of the site in the long-term. The potting assessment was reviewed by Natural England who subsequently provided updated advice.[14] This advice accepts that pressures from fishing activity exerted on MCZ features are not likely to have reached a point where they could be hindering the conservation objectives at the current time while also taking the view that if the activity is allowed to continue unchecked, then cumulative impacts from potting over time could cause significant risk to designated features. Recognising that ARM can provide a robust mechanism for managing risk within designated sites, Natural England have advised that further detail is needed in Eastern IFCA's ARM plan to provide confidence that this approach is suitably managing risks. This plan should among other things include further clarification on how legislative tools

[11] Joint Press Release (Eastern IFCA, Natural England, Norfolk Independent Fishermen's Association, North Norfolk Fishermen's Society), *Code of Best Practice Launched to Tackle Lost Gear in Cromer Shoal Chalk Beds MCZ* (May 2022). Available at: https://www.eastern-ifca.gov.uk/press-release-code-of-best-practice-launched-to-tackle-lost-gear-in-cromer-shoal-chalk-beds-mcz/.

[12] Research & Development Task & Finish Group, *Project Summary* (2021-2022). Available at: https://www.eastern-ifca.gov.uk/wp-content/uploads/2022/03/2021-2022-Research-Development-Task-Finish-Group-Project-Plan.pdf.

[13] Prior, S., Report to Wales Environment Link: Investigating the use of voluntary marine management in the protection of UK marine biodiversity (2011). Available at: http://www.pembrokeshiremarinecode.org.uk/wp-content/uploads/2011/12/WEL-Voluntary-Marine-Management-2011.pdf.

[14] See Appendix 2.

will be applied to the management of the MCZ and how management measures will be monitored for success and evaluated over time.

## 1.3. Rationale for Intervention

1.3.1. Intervention is required in line with Eastern IFCA's duties to address market failures and contribute to meeting the government policies in relation to fisheries management and marine conservation.

1.3.2. **Eastern IFCA's Statutory Duties:**
IFCAs have a duty under the Marine and Coastal Access Act 2009 (MaCAA 2009) to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way.[15] IFCAs also have a duty to seek to ensure that the conservation objectives of any MCZ in their district are furthered.[16] The latter is an overriding duty the performance of which cannot in any way be affected by socioeconomic considerations.[17]

1.3.3. **Addressing Market Failures:**
Fishing activities can potentially cause negative outcomes as a result of market failures. These failures can be described as:

i. *Public goods and services* – several goods and services provided by the marine environment such as biological diversity are 'public goods' where 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. Regulatory intervention by Eastern IFCA will support the continued existence of public goods and services in the marine environment by conserving the range of biodiversity in the sea of the Eastern IFCA district.

ii. *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. Management measures introduced by Eastern IFCA to conserve designated features within the MCZ will ensure that negative externalities are reduced or suitably mitigated.

iii. *Common goods* - a number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' where no-one can be excluded from benefiting from those goods, but consumption of the goods does diminish that available to others. The

[15] Section 153, Marine and Coastal Access Act 2009 c.23. Hereafter, MaCAA 2009.

[16] Section 154(1), MaCAA 2009.

[17] Section 154(2), MaCAA 2009.

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. In fisheries terms, this can lead to potential overfishing because it is in the interest of everyone to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an excess amount of fishing effort and unsustainable exploitation. Management measures introduced by Eastern IFCA will support the continued existence of common goods in the marine environment to mitigate against the 'tragedy of the commons.'

1.3.4. **Contributing to government policies on fisheries management and marine conservation:**
The proposed intervention will contribute to meeting government objectives as outlined in fisheries management and marine conservation policy. Contribution will be made to meeting objectives under the Fisheries Act 2020, policies under the Joint Fisheries Statement (JFS), the UK Marine Strategy and the Environmental Improvement Plan 2023.

1.3.5. Fisheries Act Objectives and JFS policies: The Fisheries Act 2020[18] replaced the European Union's Common Fisheries Policy as the framework for managing fisheries in UK waters, following the UK's withdrawal from the European Union. The Act sets out eight high level policy objectives which must be pursued by fisheries management policy in the UK.[19] The Act also required the UK Fisheries Administrations to publish a Joint Fisheries Statement (JFS) which sets out the policies for achieving or contributing to the eight fisheries policy objectives.[20] As fisheries and conservation regulators, Inshore Fisheries and Conservation Authorities (IFCAs) need to have regard to both the Act and the JFS when undertaking their functions and duties.[21] The proposed intervention will contribute towards the achievement of four of the eight high level objectives, including the scientific objective, the sustainability objective, the ecosystem objective and the national benefit objective.

1.3.6. UK Marine Strategy: The Marine Strategy Regulations 2010[22] require fisheries bodies to take to achieve Good Environmental Status (GES) in all UK waters. The UK Marine Strategy is a three-part strategy setting out the coordinated approach of the four UK Administrations to achieve this goal. The Marine Strategy Part One was updated in 2019,[23] providing an updated assessment of the state of our seas, progress made since 2012 towards achieving GES, and the revised targets and next steps for the 2018-2024 cycle. The assessment

[18] Fisheries Act 2020 (c.22). Available at: https://www.legislation.gov.uk/ukpga/2020/22/contents/enacted.

[19] These are found in section 1 of the Fisheries Act (n7):
(a) the sustainability objective,
(b) the precautionary objective,
(c) the ecosystem objective,
(d) the scientific evidence objective,
(e) the bycatch objective,
(f) the equal access objective,
(g) the national benefit objective, and
(h) the climate change objective.

[20] The first iteration of the Joint Fisheries Statement was published in 2022. Available at: https://www.gov.uk/government/publications/joint-fisheries-statement-jfs.

[21] Joint Fisheries Statement 2022 (n9), p. 12.

[22] Marine Strategy Regulations 20210, SI 2010/1627. Available at: https://www.legislation.gov.uk/uksi/2010/1627/contents/made.

[23] UK Government Policy Paper, *Marine Strategy Part One: Updated Assessment and Good Environmental Status* (2019). Available at: https://www.gov.uk/government/publications/marine-strategy-part-one-uk-updated-assessment-and-good-environmental-status.

notes that for benthic habitats[24] the situation is either stable or mixed, with GES partially achieved.[25] Recognising that the UK's MPA network plays a significant role in supporting the achievement of GES, particularly in relation to benthic habitats, updated Part One sets an ambition to surpass the commitment to ensuring 30% of the world's ocean are protected by 2030 and a target to put in place appropriate management measures by 2024.[26] The proposed intervention will contribute to meeting the government's target for appropriate management measures to be in place within MPAs by 2024.

1.3.7. Environmental Improvement Plan (EIP) 2023:[27] This plan assesses progress made against the ten goals set out in the 25 Year Environment Plan[28] and specific targets and commitments made in relation to the achievement of each. The long-term target for biodiversity in the sea is to ensure that 70% of designated features in Marine Protected Areas (MPAs) are in favourable condition by 2042, with the remainder in recovering condition. The interim target is for 48% of designated features in MPAs to be in favourable condition, with the remainder in recovering condition by 31 January 2028. Analysis within the EIP 2023 shows that by putting management measures in place across MPAs by 2024, 48% of designated features will be in favourable condition by 2028 as per the interim target.[29] The proposed intervention will contribute towards meeting this target.

## 1.4. Policy Objectives and Intended Effects

1.4.1. The overall policy objective is to further the conservation objectives within Cromer Shoal Chalk Beds MCZ through an Adaptive Risk Management (ARM) approach.

1.4.2. The intended outcomes are:

i. To develop and introduce appropriate and proportionate evidence-based management measures to reduce fishing pressures on sensitive features such that those pressures are kept within levels that are compatible with furthering the site's conservation objectives.

ii. To enable flexible management that can adapt to best available evidence.

iii. To minimise the social and economic costs to stakeholders of management that is either too precautionary or not precautionary enough, to the extent that this is compatible with Eastern IFCA's statutory duties.

iv. To contribute to the achievement of government policy on fisheries management and marine conservation, including the high-level fisheries objectives under the Fisheries Act 2020, the Joint Fisheries Statement, the UK Marine Strategy and the Environment Improvement Plan 2023.

[24] Combining descriptor 1 on biodiversity and descriptor 6 on seafloor integrity.

[25] Marine Strategy Part 1 (2019), (n14), p. 10.

[26] *ibid*, p. 23.

[27] UK Government Policy Paper, *Environment Improvement Plan 2023*. Available at: https://www.gov.uk/government/publications/environmental-improvement-plan.

[28] UK Government Policy Paper, *A Green Future: Our 25 Year Plan to Improve the Environment* (2018). Available at: https://www.gov.uk/government/publications/25-year-environment-plan.

[29] Environment Improvement Plan 2023 (n19), p. 36.

1.4.3. Success will be the implementation of only such mitigation as required to meet the conservation objectives of the site whilst minimising impacts on fishery stakeholders. The effectiveness (success) of the measures will be identified through further research and continuous monitoring at the site. Other indicators of success will be updated advice from Natural England to the effect that the statutory nature conservation adviser is confident in the continued suitably of the ARM approach to the MCZ and maintaining the 'Maintain' General Management Approach (GMA) in the upcoming Secretary of State report to parliament on progress in relation to the MPA network.[30]

## 2. Options Considered and Rejected

2.1. This section outlines the options considered and rejected. Included is a summary of the monetised and non-monetised costs and benefits of each option (including administrative burden).

### 2.2. Option 0 – Do Nothing

2.2.1. This option is not considered appropriate on the basis of best available evidence (including Eastern IFCA's potting assessment, outputs from research, and advice from Natural England) showing that fishing activity, if unmanaged, could cause significant risk to designated features, hindering the site's conservation objectives.

2.2.2. The costs and benefits associated with this option cannot be monetised as there is too high a degree of uncertainty. The costs on the Authority are not removed as Eastern IFCA has a duty under MaCAA 2009 to ensure that the conservation objectives of the MCZ are furthered, and so "do nothing" is not a possible option.

2.2.3. If a means to manage the fishery was not implemented, the fishery would have to be closed given its known risks to the site's conservation objectives without the implementation of mitigation measures which would incur a cost to businesses. Costs to industry would range from none, as there is no cost of a permit or any costs associated with complying with mitigation measures, to the loss of the fishery entirely as it closes to comply with relevant legislation.

2.2.4. Based on the above, this option was not considered to be compatible with Eastern IFCA's duties, or the overall policy objective as outlined in Section 1.4 and was accordingly rejected.

### 2.3. Option 1 – Voluntary Scheme

2.3.1. Voluntary measures are currently in place as mitigation for lost and stored gear within the MCZ. However, confidence in the uptake of measures based on anecdotal monitoring is variable and measures do not currently address active potting.

[30] In the 2018 Secretary of State report to Parliament reporting on the progress made during the period from 2012-2018, the General Management Approach (GMA) for all designated marine habitats and the feature of geological interest in the MCZ is 'Maintain' (in favourable condition). See: Defra, *Marine Protected Areas network Report 2012-2018* (2018), p. 30. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916310/mcaa-mpa-report-2012-2018a.pdf.

2.3.2. Because management measures introduced are likely to incur costs to fishers, it is considered unlikely that a voluntary scheme would provide sufficient controls in the face of stronger economic incentives to maintain the status quo (see Section 1.3.3 on Market Failures). Moreover, there is no method of enforcement under this option, and consequently no avenue for addressing risks to designated features as a result of non-compliance. Consequently, this option is considered insufficient to meet legislative requirements under the MaCAA 2009.

2.3.3. The costs and benefits associated with this option cannot be monetised as there is too high a degree of uncertainty. However, the costs on the Authority would be practically equivalent to the costs of running a permit scheme. These costs would not however be mitigated as by a permit scheme which enables the Authority to seek cost recovery via permit fees. Moreover, given the high costs incurred by the Authority in relation to ongoing research to support ARM in the MCZ, this option would place the Authority in a position of increased financial risk which could in turn risk the Authority's ability to continue to deliver ARM and/or fulfil its statutory duties.

2.3.4. As with the "do nothing" option, costs to industry would range from none, as there is no cost of a permit or any costs associated with complying with mitigation measures, to the loss of the fishery entirely as it closes to comply with relevant legislation.

2.3.5. Based on these considerations, this option was also considered to be incompatible with Eastern IFCA's duties and the overall policy objective and was accordingly rejected.

## 2.4. Option 2 – Ban Fishing Activity on the Rugged Chalk using IFCA Byelaw

2.4.1. Under this option, a byelaw would be introduced to ban fishing activity on the rugged chalk. Because habitat mapping work is ongoing, the ban would have to be based on a precautionary area to suitably mitigate risks to the MCZ based on best available evidence.

2.4.2. Although this option does not align with all the intended effects listed in Section 1.4, it would meet the overall policy objective. This option would also be less resource intensive for the Authority, both in terms of implementation and enforcement because the ban would cover a relatively small area.

2.4.3. This option would however have disproportionate impact on fishers and would also be disproportionate to the current levels of risk to the site's conservation objectives based on the most recent Natural England advice received in January 2023 which recognises that pressures exerted on MCZ features are not likely to have reached a point where they could be hindering the conservation objectives at the current time. The costs and benefits associated with this option cannot be monetised as there is too high a degree of uncertainty, however, costs to fishers would potentially result in a loss of livelihood based on the limited range of local vessels and reliance on the rugged chalk areas.

2.4.4. Accordingly, this option was rejected in favour of the preferred policy option.

# 3. Preferred Option: Option 3 – Cromer Shoal Chalk Beds Byelaw 2023

## 3.1. Description of the Preferred Option

3.1.1. The preferred option is to implement a flexible permitting byelaw under the MaCAA 2009. This option was considered to be the most likely to achieve the overall policy objective and intended outcomes. It is also most aligned with the government's overarching policies and strategic direction in relation to fisheries management and marine conservation.

3.1.2. The byelaw would prohibit commercial and recreational fishing using pots within the MCZ without a permit issued by the Authority. Fishing activity would have to be in accordance with any permit conditions or the conditions of any endorsement attaching to a permit. The preferred option would enable the Authority to implement flexible manage measures including setting; a limit on the number of permits or endorsements issued, separate permit and endorsement conditions and separate eligibility policy in relation to the allocation of permits and endorsements.

3.1.3. Introduction, variation or revocation of the flexible measures would include a requirement to consult with affected stakeholders and undertake a separate impact assessment to mitigate against any risks of unlawful sub-delegation of power.

3.1.4. Except in relation to eligibility policy, the byelaw would also enable flexible measures to be introduced temporarily with no consultation where there is a risk to the conservation objectives of the MCZ or in response to other compelling and urgent reasons. This would allow rapid implementation of measures for the protection of the MCZ where there is a risk to its conservation objectives and has been tested and confirmed by the Marine Management Organisation's legal team for other Eastern IFCA byelaws. Any such measures would require review unless they are temporary (not intended to last longer than three months, per the byelaw).

3.1.5. The byelaw would also enable the Authority to request any information relating to fishing which is considered necessary to further the conservation objectives of the MCZ and give the Authority discretion as to the means and frequency by which such information may be requested so long as these are appropriate for the purpose. This mechanism would be used to support scientific research under ARM and is necessary because although fishers currently provide data on fishing activity to the MMO through the under-10s catch recording app, this is of insufficient resolution to inform MCZ management.

3.1.6. To allow for gear traceability and further mitigate risks posed by lost and stored gear, it would also be prohibited to use pots for fishing unless they are marked according to the requirements under the byelaw and there would be a requirement to recover traceable gear found at sea or ashore when notified by the Authority, within timescales that are reasonably practicable.

3.1.7. The preferred option would provide the necessary framework for the Authority to deliver ARM, supporting necessary research to inform proportionate, evidence-based management to ensure that the conservation objectives of the MCZ a furthered. The approach enables a high level of flexibility and scope for innovative approaches, experimentation, and trialling. Consistent with Natural

England's advice on the requirements of ARM, this is intended to take into account current knowledge gaps and ensure that the framework in place is future-proof and able to adapt to changes in a dynamic environment.

3.1.8. The intended effects of the wording of the proposed byelaw are at Appendix 3.

## 3.2. Implementation Plan

3.2.1. The preferred option will be implemented through secondary legislation, specifically a byelaw under section 155 of the MaCAA 2009. It is intended that the byelaw will come into force no later than two years after it is made by the Authority and undergone formal consultation.

3.2.2. After implementation the management of fishing activity and enforcement of any new measures introduced in the MCZ will be the responsibility of the Authority, with accountability to the Secretary of State via the MaCAA 2009.

3.2.3. Transitional arrangements are not considered necessary due to the nature of the byelaw being a framework mechanism i.e. management measures will be implemented through permit conditions rather than on the face of the byelaw, in consultation with stakeholders and subject to separate impact assessments.

## 3.3. Costs and benefits of the Preferred Option

3.3.1. The monetised costs to fishers of the preferred option relate to the fees associated with a permit and tags to fish. This is applicable both to commercial and recreational fishers.

3.3.2. The estimate costs associated with pot tags is based on the values in Table 2 (below) and using an estimated number of pots in the MCZ of 10,600. The estimated number of pots is based on a combination of observations (officer knowledge and buoy counts) and data available from Monthly Shellfish Activity returns. The best estimate assumes a of £0.90 per tag (i.e. 0.92 x 10,600 pots) and is £9752. The low estimate assumes the lowest cost tag available (i.e. £0.40 x 10,600) and the high estimate assumes the highest cost tag identified (i.e. £1.50 x 10,600 pots).

3.3.3. The estimate costs for permit fees take into account a fee of £53.38 per permit and varied number of permits issued. The current estimate for the number of commercial vessels operating in the MCZ is 33 vessels. This forms the best estimate and the low estimate because available data indicates that that this is also the lowest number of vessels since 2006. The high estimate assumes 60 vessels are fishing in the MCZ, which was the highest number of vessels thought to be operating in the MCZ since 2006.

3.3.4. The scale of the impact to business is considered low because the total estimated annual cost (£9957) is a small proportion of the estimated first sale value of catch (from the main species) within the affected area[31] (£1,057,093).

[31] Based on MMO data release 10/01/2023, landings of edible crabs, velvet crabs and lobsters form ICES statistical rectangles 34F0, 34F1, 35F0 and 35F1 for 2017 to 2022 inclusive. The area of the MCZ (the affected area) is only a proportion of the total area of the ICES rectangles (likely to overestimate) and the data only captures sales to a registered 'buyer' although it is known that many inshore fishermen sell direct to the public (likely to underestimate). Figures from the total area were reduced proportionally to reflect the number of vessels thought to operate in the MCZ.

3.3.5. The impact to recreational fishers cannot be monetised as there is no available information on the scale and intensity of recreational fishing in the MCZ. Recreational permit fees will be the same as commercial permit fees. This approach is justified because fees are solely based on costs associated with administration. Time taken for administration is unlikely to vary based on whether a commercial or recreational permit is being processed. The benefits of this approach are that it ensures parity between commercial and recreational fishers, recognising that recreational activity poses the same potential risk to designated features. This approach was also informed by stakeholder responses to the informal consultation[32,33]

3.3.6. Table 1 outlines the costs in Admin Officer time for permit scheme administration. Table 2 provides an estimate on tag costs based on different available options. Table 3 provides an estimate of costs incurred by the Authority in relation to research to support ARM.

Table 1. Costs in Admin Officer time for permit scheme administration (proposed permit fee)

| **Unit** | **Unit cost** | **Number of units** | **Total cost** |
|---|---|---|---|
| Admin Officer time (including on-costs) | £21.35 | 2.5 | £53.38 |
| **Total cost** | | | **£53.38** |

Table 2. Estimated costs per tag from least expensive to most expensive option

| **Tag type** | **Cost per tag** |
|---|---|
| GT Marine Gear Marker Tags | £0.40 |
| Easitag | £0.85 |
| Dalton 3D Tag | £1.50 |
| **Best estimate (average cost per tag)** | **£0.92** |

Table 3. Estimated costs incurred by the Authority in relation to research to support ARM in the MCZ to 2 November 2022

| | |
|---|---|
| Vessel operating costs for ARM trips | £27,461.54 |
| Crew costs for these trips | £51,939.41 |
| ROV purchase and maintenance | £23,986.46 |
| Experimental gear purchase | £1085.80 |
| **Total cost (approximate)** | **£104,472.21** |

3.3.7. The monetised costs to the Authority relate to the administration and enforcement of the permit scheme and the costs of funding the necessary research to support ARM in the MCZ.

[32] https://www.eastern-ifca.gov.uk/wp-content/uploads/2022/12/2022_11_22_Phase1_Outcome_PUBLIC_FACING.pdf

[33] https://www.eastern-ifca.gov.uk/wp-content/uploads/2023/02/2023_2_14_Phase2_Outcome.pdf

3.3.8. The proposed annual permit fee of £53.58 will only seek to recover the costs in Admin Officer time associated with the administration of permits whereas the Authority would absorb the costs relating to enforcement, research and stakeholder engagement with the development of management measures. This approach is justified based on all the businesses likely to be affected being small and micro businesses. However, to mitigate against the potential financial risk to the Authority as a result of unknown future costs for supporting ARM, the byelaw will include provisions giving the Authority discretion to review and vary fees.

3.3.9. Other monetised and non-monetised costs will include familiarisation costs to fishers (due to time taken to become accustomed to new measures) and those associated with compliance with any additional mitigation measures implemented through permit or endorsement conditions. However, familiarisation costs to fishers are currently considered to be low due to the framework nature of the byelaw. Moreover, the introduction or variation of such flexible measures will be in accordance with requirements to consult and conduct consider impacts which will include familiarisation costs. This is in keeping with the established processes under IFCA permit byelaws.

3.3.10. The benefits of the preferred option cannot be monetised. However, they include ensuring that the conservation objectives of the MCZ are furthered while minimising the risks of disproportionate social and economic costs to stakeholders as a result of management that is either too precautionary or not precautionary enough. The preferred option will add value to the UK MPA network, contributing towards the achievement of government policies (see Section 1.3.4).

3.3.11. The preferred option also enables a participatory approach to management with increased opportunity for continuous stakeholder engagement in the development of management solutions.

## 3.4. Risks and Assumptions

3.4.1. There are potential legal and reputational risks associated with the proposed byelaw.

3.4.2. In view of the flexible nature of the proposed byelaw, there is an inherent risk that the Authority could face legal challenge on the basis of unlawful sub-delegation of power. Legal advice is being sought on this issue. However, the risk is considered to be mitigated by the inclusion of robust processes for review, consultation and assessment of impacts included in relation to the introduction of flexible management measures.

3.4.3. Reputational risks include negative stakeholder perception of the proposed intervention being either too precautionary or not precautionary enough and negative perception by government for failure to meet statutory duties.

## 3.5. Impact on Small and Micro Businesses

3.5.1. All the businesses operating within the fishery are small or micro businesses. However, it is not possible to exempt these whilst achieving the overall policy objective and intended outcomes as it is the activity of these businesses that has been found to be causing damage to designated features within the MCZ.

3.5.2. Burdens on small and micro businesses are mitigated against in three key ways. First, costs related to the operation of the permit scheme passed to fishers are limited only to the costs in Admin Officer time in relation to the administration of permits. Second, the introduction of flexible permit or endorsement conditions requires consultation and a consideration of impacts. Third, the procedure for setting eligibility policy for permits and endorsements (which can be used to limit access to the fishery) includes the requirement to undertake an impact assessment having particular regard to:

i. The stability, continuity and succession of business of the permit holders;

ii. The continuing ability of permit holders to finance their businesses; and

iii. The impacts to potential young entrants or recruits.

3.5.3. These mitigation measures have been developed and selected on the basis of consultation with impacted stakeholders, highlighting concerns about risks to business continuity and security.[34]

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

4.1. The Impact Assessment has considered the best available evidence to consider the impacts of the measures, which are limited to the costs associated with permits and pot tags and has considered the outputs of an informal consultation.

4.2. The anticipated costs to business are likely to be low scale but will be further explored through formal consultation.

## 5. Wider Impacts

5.1. Informal consultation has identified concern amongst fishery stakeholders that the requirement to hold a permit will change behaviours and in particular, potentially increase fishing effort within the site. This will be mitigated through monitoring and implementing restrictions under the byelaw as may be required.

## 6. Monitoring and Evaluation

6.1. The impacts and success of the measures will be reviewed in accordance with Defra guidance.[35] Review of the byelaw will take place every 6 years. However, in line with the iterative nature of ARM, there will be ongoing monitoring and review of measures implemented and measures considered, in consultation with stakeholders.

[34] See Appendices 1 and 2.

[35] Defra, IFCA Byelaw Guidance: Guidance on the byelaw making powers and general offence under Part 6, Chapter 1, Sections 155 to 164 of the Marine and Coastal Access Act (2011). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/182343/ifca-byelaw-guidance.pdf.

## Appendix 1 – Natural England Advice (2020)

Date: 24 August 2020

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**BY EMAIL ONLY**

Dear [redacted]

**Formal advice on the impact of crab and lobster potting on Cromer Shoal Chalk Beds Marine Conservation Zone**

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in European Marine Sites (EMS).The revised approach was subsequently extended to ensure fishing activities in Marine Conservation Zones (MCZs) are managed in accordance with the provisions of the Marine and Coastal Access Act 2009.

The following constitutes Natural England's formal statutory advice, with regard to the impact of potting activities on the subtidal chalk feature of Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ).

## Background

In November 2018 Natural England were sent a report, which included photos that appeared to show damage to areas of outcropping subtidal chalk within Cromer Shoal Chalk Beds MCZ (Spray, 2018). The damage presented was likely to be anthropogenic in origin, and appeared to be impacting the physical structure of the subtidal chalk feature. Subsequently, Natural England have been made aware of further videos and photos, which show damage to subtidal chalk, that can be conclusively linked to potting activity at the site (Spray, 2019).

It is Natural England's view that if the physical structure of the chalk is being impacted, then this will lead to a degradation of the subtidal chalk feature and a loss of quality, which would be contrary to the Conservation Objectives (COs) of the MCZ. Such physical damage to the structure of the chalk reef will be permanent, with no prospect of recovery. There were limitations to what we could conclude from the third party photos and videos submitted, as they did not give any indication of the scale of the problem within the site. As such, Natural England and Eastern IFCA have been working to collect further independent and scientifically robust evidence to:

- Understand the possible causes of the damage highlighted in the report
- Ascertain the level and significance of damage to subtidal chalk within the site
- Locate the most sensitive areas of subtidal chalk within the site
- Further understand potting practices and intensity within the MCZ

On Natural England's part this has involved:

- Undertaking a review of all other human activities that may impact subtidal chalk within the site
- Organising and undertaking a dive survey, to investigate how active potting activity interacts with the subtidal chalk.
- Estimates of activity levels by undertaking spot counts of potting buoys from the North Norfolk Coast, combined with National Coastwatch Institute data and observations.

The advice that follows is based on the conclusions that we have drawn from this work.

## Natural England's advice on the impact of potting activity on subtidal chalk

Potting could lead to impacts on the subtidal chalk through three different means; the impacts of active potting, the impacts of pots being stored on the chalk, and the impacts of lost gear. Each of these will be considered in turn below.

### Active Potting Activity

A spot count of pot buoys was undertaken, towards the end of the potting season, on 14 October 2019. We estimated that ~8000 pots were on the seabed, between Sheringham and Overstrand, on that day. This was assuming that there were 10 pots and 2 buoys per shank, and is likely to be an underestimate, as only buoys that could be seen by telescope from the shore were counted. We recognise that this is a crude estimate, at a single point in time. It was Natural England's intention to carry out monthly spot counts from April to October 2020 to help get a more rounded picture of activity throughout the year, but Covid-19 restrictions meant we were unable to. We are still hopeful to do this towards the end of the summer. We are also hopeful that EIFCA's consultation with local fishermen will further refine this estimate, and help build up a true picture of the extent of potting activity within the site.

Natural England and The University of Essex undertook a dive survey in September 2019, in order to further investigate the impacts of potting on subtidal chalk. Data collection was targeted around the more rugged areas of chalk. A shank of pots was randomly chosen to survey, with video footage captured along both sides of the shank. In situ biological and habitat data was recorded from quadrats along the shank transect, and three dimensional photogrammetric models were produced and analysed. The final report accompanies this final advice letter.

The results from the dive survey showed that there were 65 incidents of human attributed damage of different severity across the three subtidal chalk sites investigated. Most of these incidents of damage could be largely tied to human activity, most likely potting, given the much reduced frequency of other types of human activity within the inshore area. Impacts which were categorised as human attributed are those that could only be from a human cause based on expert judgement and those where the cause was present, for example incidents where a pot was observed to be causing an impact. Recent additional evidence of ships anchoring within the MCZ is another likely cause of damage which requires further investigation.

From the study there were eleven types of damage categorised from observation during four dives. There were numerous occurrences of impact on the subtidal chalk sites when compared to the flint/ chalk cobble plain (high/ moderate infralittoral rock features), which had none. West Sheringham and West Runton sites had similar damage types which were abrasion with some shears and strike damage. However East Runton was different as it had a high occurrence of rubble, strikes and unlevel shears, with less abrasions.

Severity categories were different across the sites with West Sheringham site (dived on 11 September 2019 observed to have the most raised chalk features) most impacted by severe types of human attributed damage. Pots, anchors and ropes can cause low to high severity types of damage but natural causes, such as water movement and scour, potentially can too. There are some categories of damage which are most likely attributed to human activity, while some other categories of damage may be either due to human activity or natural damage. Any damage caused by human activity is additive.

When considering management Natural England believe that it is the areas of more complex, outcropping subtidal chalk that are most at risk of permanent damage from potting activity. We observed that the site with most raised features (West Sheringham dived on 11 September 2019) had the highest occurrence of highly severe impacts, as well as low severity impact (due to the amount of abrasions observed).

Abrasion from pots was seen on flatter areas of chalk, however this abrasion was generally to surface epifauna, which has the ability to recover if left undisturbed. Even if the abrasion resulted in gradual wear to the subtidal chalk bedrock, it is likely that the form and function of flat chalk would remain unaltered.

Damage that could be tied to potting was in categories that could be attributed to both pots / anchors or ropes, with no cause being particularly prevalent over the other. The damage caused was permanent, but small scale, with each individual occurrence showing slight damage to the form of the physical chalk, focused in one area, rather than evenly across the feature (for example the shearing of a small outcropping piece of chalk, or a visible impact site, with slight indentation lines and chalk rubble).

Although each individual incident of damage observed in the dive survey is small-scale, when the number of pots on the seabed at any one time is taken into account, the cumulative impact of these incidents is significant. This is because the additive effect of these small-scale impacts could be altering the structure, and therefore biological function of the chalk, in a more rapid and focused way than natural change would. Given the cumulative impact of the activity, and the permanent nature of the damage caused, Natural England consider active potting as currently undertaken to be hindering the Conservation Objectives of the site. We therefore advise that management of the impacts of active potting on subtidal chalk feature is required within the MCZ .

Storing of Pots on Subtidal Chalk

Many of the small-scale impacts of active potting are likely to be magnified if a shank of pots is left in the vicinity of complex outrcropping subtidal chalk for a prolonged period of time. This is particularly true of damage that is caused by the rope rubbing, snagging and sawing into chalk structures. In cases such as this a single shank of pots has the potential to completely alter the structure of a chalk feature, therefore negatively impacting the Conservation Objectives of the site. A video was submitted by a third party, which illustrates the severe impact that this activity has the potential to exert on complex outcropping chalk features (Spray, 2019).

Natural England therefore advise that the practice of storing pots in the vicinity of known areas of complex outcropping chalk within the MCZ is not compatible with the Conservation Objectives of the site, and that alternative options for pot storage are required. These options must be on-shore to prevent lost fishing gear causing damage to protected habitats and endangering wildlife within, or outside of, the designated site and impacting fisher's livelihoods.

Lost Gear

Lost and entangled fishing gear is likely to have a similar, or more severe, impact on subtidal chalk to the practice of storing pots for prolonged periods of time. Natural England understand that EIFCA are already looking into options for reporting and removing ghost fishing gear within the MCZ. Improving this process, and implementing a system that encourages fishermen to report gear that is lost (and potentially holds them to account if it is not reported), is important in ensuring that further severe damage to the structure and function of subtidal chalk within the MCZ does not continue, and that lost gear does not continue to ghost fish or cause an entanglement hazard to wildlife.

The context of Natural Change

Natural England recognises that Cromer Shoal Chalk Beds MCZ is a naturally dynamic site. Subtidal chalk is friable and easily eroded through natural processes, which is the reason for the structural and topographic complexity which makes the chalk at the site so unique and important (Natural England, 2018; Moffat et al., 2019).

Natural England is of the opinion that natural forces are more likely to slowly, and evenly, abrade the surface of the chalk, changing its form over a number of years. A strike from a pot, or sawing from a rope, impacts the chalk unevenly, often toward the top of a structure, where it is most fragile and sensitive. This has the ability to change the form of the structure, sometimes instantaneously, reducing its stability and changing the microhabitats available to associated flora and fauna. This would negatively impact the structure and function of the subtidal chalk.

Without a baseline for natural change at the site, it is not possible to conclusively say how significant the damage caused by potting (includes active and non-active) is, relative to natural change. As stated above, at least 65 of the incidents of damage recorded during the dive survey are linked to anthropogenic activity, most likely potting. All of these cases of damage have caused small, irreversible changes to the structure of the chalk. As these changes are additional to natural impacts the structure, and therefore biological function of the chalk is altered, in a more rapid and focused way than natural change would.

It is Natural England's duty to use the best available evidence to provide advice in a way that will prevent damage to designated sites. Evidence collected has shown that potting activity could impact the structure of the reef, and in the absence of a baseline of natural change to compare to, then we must assume that this impact is significant. Given the cumulative impact of the activity, and the permanent nature of the damage caused, Natural England consider active potting, the storage of pots on the chalk, and lost gear to each be hindering the Conservation Objectives of the site. We therefore advise that management of the impacts of potting, both active and non-active, on subtidal chalk is required within the MCZ .

**Adaptive risk management**

Further study in partnership would enable us to better understand the scale, frequency and causes of the damage observed, but this would need to be part of an Adaptive Risk Management approach (ARM). An assessment by EIFCA of the fishing activity in relation to the conservation objectives of the site must be completed as soon as possible in conjunction with regular stakeholder engagement e.g. North Norfolk Fisheries Forum, to better understand the levels of activity currently. Further research into how ecology differs in bedrock compared to outcrops and how ecology will differ over time in areas that are subject to potting vs areas that are not would inform an ARM approach. A control site of sufficient size, where relevant anthropogenic impacts are removed, will be required to do this effectively. We hope this proposed study will support a dialogue with the industry and other sea users to achieve sustainable management of the Cromer Shoal Chalk Beds MCZ going forward.

As we have evidence that active and non-active potting is causing a degree of damage on complex outcropping chalk, some of which is irrecoverable, we advise that management of the activity on the complex outcropping chalk is required. We do however understand the limitations of the data and therefore do not think that management necessarily needs to be an outright ban of potting on the subtidal chalk reef feature. We believe that in this circumstance, ARM has the potential to deliver more appropriate and proportionate evidence-based management, that may allow EIFCA to work more effectively with the fishing industry.

This is based on the assumption that EIFCA are able to put some measures in place to limit the impact of existing active and non-active potting on complex outcropping chalk as soon as possible, and are able to work toward gathering further data to more fully understand the scale of the impact of the activity on the feature. A plan for management and the necessary research should be laid out clearly, with set timelines and deadlines to be adhered to. This plan must adhere to the principles laid out in the

paper 'Adaptive Management: With Respect To Fisheries Within Marine Protected Areas' (Defra, 2015), so that risks to the sites conservation objectives are appropriately managed. Longer term management must be genuinely adaptive; if further research shows that the scale of damage inflicted by pots on the subtidal chalk reef feature is such that it is impacting the ecology of the site, then a ban of the activity on subtidal chalk feature will be required.

Natural England believe that if the above approach is taken then we will be on an acceptable trajectory toward improving site condition, and can take some time to better understand the impacts of the activity. If this approach is not possible, then Natural England believe that EIFCA would need to take a precautionary approach and ban any interactions between potting and complex outcropping chalk as soon as possible.

Natural England recognise the historical and cultural importance of the crab and lobster fishery and sensitivity surrounding this advice. We are therefore keen to work in partnership with EIFCA, fishers and others to help find solutions to make the fishery more sustainable in the long-term, and protect the features of the MCZ. We look forward to further discussions on how we can support this work.

We'd like to highlight the recent excellent partnership working with Eastern IFCA. NE and EIFCA have been working closely to address some of the uncertainties related to the fishery and Natural England would like to reiterate their commitment to supporting the EIFCA in this MCZ assessment and further investigation as discussed.

For any queries relating to the content of this letter please contact me using the details provided below.

Yours sincerely,

[redacted]
[redacted]
E-mail: [redacted]
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Reference

Defra. (2015) Adaptive Management: With Respect To Fisheries Within Marine Protected Areas. Unpublished Report

Love, J. (2020) Small Scale Workshop – Principles Recommended to assess the Impact of Potting on Subtidal Chalk in Cromer Shoal Chalk Beds MCZ. Unpublished Report

Moffat, C., Richardson, H. and Roberts, G. (2019). Natural England marine chalk characterisation project. Natural England Research Reports, Number 080

Natural England (2018). Conservation Advice for Marine Protected Areas: Cromer Shoal Chalk Beds MCZ, Supplementary Advice of Conservation Objectives. https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UKMCZ0031&SiteName=cromer&SiteNameDisplay=Cromer+Shoal+Chalk+Beds+MCZ&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=0. Last Accessed 29/01/2020

Spray, R. (2018) Observations of potting interaction with the chalk reef. Unpublished Report.

Spray, R. (2019) Sheringham Lost Pots Sept 19. https://www.youtube.com/watch?v=SwyNkirXsHw. Last Accessed 29/01/2020.

Tibbitt, F., Love, J., Wright, J., Chamberlain, J. (2020). Human Impacts on Cromer Shoal Chalk Beds MCZ: Chalk complexity and population dynamics of commercial crustaceans Unpublished report (available on request from Natural England).

## Appendix 2 – Natural England Advice (2023)

Date: 09 January 2023
Our ref: 394437
Your ref: Eastern IFCA: Cromer Shoal Chalk Beds MCZ Potting Assessment v.5.0 Consultation


Eastern Inshore Fisheries & Conservation Authority
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**By Email Only**

Dear [redacted]

**Formal advice on the impact of potting fisheries in the Cromer Shoal Chalk Beds Marine Conservation Zone.**

Thank you for your consultation received 28 April 2022. We appreciate that our advice on this has taken some time due to the complexity and sensitivity of this assessment. Thank you for your patience and constructive dialogue during this period

Marine and Coastal Access Act 2009

The potting fishery, as set out in the information provided, is sited within the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ). Natural England has considered the assessment prepared by Eastern IFCA for the purposes of making an assessment consistent with the provisions of the Marine and Coastal Access Act 2009. Please accept this letter as Natural England's formal advice on the assessment and the conclusions it draws.

Summary of Natural England's Advice

Having considered the assessment prepared by Eastern IFCA, Natural England cannot currently agree with the conclusions made regarding the risk to peat and clay exposures and rugged chalk features resulting from potting activities within the MCZ. It is our opinion that further detail is required in Eastern IFCA's plan for Adaptive Risk Management (ARM) in order to suitably manage this risk.

We acknowledge that existing data on pressure/feature interactions for this fishery are limited and recognise Eastern IFCAs commitment to fill these evidence gaps. We accept that pressures exerted on MCZ features are not likely to have reached a point where they could be hindering the conservation objectives at the current time, however it is our view that if the activity is allowed to continue unchecked then cumulative impacts from potting activities over time could cause significant risk to designated features.

Whilst Adaptive Risk Management can provide a robust mechanism for managing risk to designated sites, at the current time there is insufficient detail outlined within Eastern IFCA's ARM plan to provide us with confidence that this approach will suitably manage the risks. Further detail is therefore required before Natural England can provide statutory advice on the conclusions of the MCZ assessment. We advise that, as a minimum, this plan should provide:

- A clear and detailed management approach for reducing the impact of potting on subtidal chalk.
- An outline of how existing evidence and any proposed new research will be used to inform management both now and in the future.
- Further clarification on how legislative tools (e.g., permitting byelaws) will be applied to management of the MCZ.
- Clear links between how the management proposed will mitigate against the pressures identified in the MCZ Assessment.
- Detail on how management measures will be monitored and evaluated over time.

It is essential that an initial ARM plan sets clear timeframes for management, and that these are adhered to so that clear progress can be made in reducing risk of damage to designated features within the MCZ. We will be happy to provide further advice or contribute to the ARM plan at an appropriate time if this is required. We advise that measures to reduce or remove pressures exerted on peat and clay and rugged chalk features should be implemented by Eastern IFCA whilst details of the full ARM plan are being finalised. This will act to reduce risk to the site, whilst Eastern IFCA and partners work to better understand the wider context regarding the extent to which potting activity accelerates natural levels of erosion at the site.

It should be noted that if it is not possible to implement an ARM plan within a reasonable timeframe (at the very least a clear plan should be in place by April 2023, with specified deadlines that should be adhered to), then Natural England believe that there may be an unacceptable risk to rugged chalk and outcropping peat and clay exposures within the site, and we may ultimately have to revise our position on whether an Adaptive Risk Management approach remains acceptable as a mechanism of preventing risk to the site's Conservation Objectives.

Further details regarding Natural England's advice on the MCZ Assessment, and how we came to the conclusions summarised here, are outlined in the following sections.

## 1. Mitigation and Adaptive Risk Management

Natural England recognise that existing data on pressure/feature interactions for this fishery is limited, and because of this our previous advice to Eastern IFCA has advised that an Adaptive Risk Management approach had the potential to deliver more appropriate and proportionate evidence-based management that may allow Eastern IFCA to work more effectively with the fishing industry. When this was advised in August 2020, it was with the understanding that 'Eastern IFCA were able to implement some measures to limit the impact of existing active and non-active potting on complex outcropping chalk as soon as possible' and were 'able to work toward gathering further data' to better understand the scale of impact of the activity on the feature. We stated that 'a plan for management and the necessary research should be laid out clearly, with set timelines and deadlines to be adhered to'.

In April 2023 it will be two years since Eastern IFCA proposed an ARM approach at the site. It is Natural England's expectation that there should now be a clear and detailed management plan for reducing the

impact of potting on subtidal chalk. This plan should outline how the existing evidence and proposed research outlined above will be used to inform management now and in the future, along with further clarification on how legislative tools (e.g., permitting byelaws) will be applied to management of the MCZ. This plan should make clear links between how the management proposed will mitigate against the pressures identified in the MCZ Assessment. Furthermore, detail should be provided on how management measures will be monitored for success and evaluated over time. Considering the flexibility of Adaptive Risk Management, it may be prudent to plan for a range of different management strategies based on the possible likely outcomes of evidence streams. It is essential that an initial management plan, with clear timeframes, is designed and implemented to mitigate against screened in pressures identified as having an impact on site features. It is also essential that timeframes proposed are adhered to, so that we can see clear progress in management to reduce risk of damage to subtidal chalk within the MCZ.

It is Natural England's view that this management plan is necessary to ensure that further damage to subtidal chalk is mitigated against, whilst Eastern IFCA and partners work to better understand the wider questions of to what extent potting activity accelerates natural levels of erosion at the site. If it is not possible to implement management as part of ARM within a reasonable timeframe, then Natural England believes that Eastern IFCA would need to take a precautionary approach to limit or remove activities that hinder the conservation objectives of the MCZ.

With regards to mitigating the effects of lost gear, we recognise that there is now a Code of Best Practice for Lost, Missing and Stored Gear, and would like to acknowledge Eastern IFCA's efforts with developing this code, and the engagement that has been required to gain support and participation from industry. This has set a good precedent for fishers to maintain equipment in good condition, dispose of unwanted equipment safely, and appropriately report snagged, missing or lost gear to Eastern IFCA. Natural England are aware that Eastern IFCA are now looking into a protocol for retrieving any gear reported as lost, and we welcome further information on the proposed system of retrieval and how this will be implemented. We would like to see further detail in the MCZ assessment of how adherence to the Code of Best Practice (and therefore its success as a tool for management) will be monitored. If it becomes clear that the code is not being followed then stricter measures of managing the reporting of lost and stored gear on the reef will be required, as this pressure has the potential to cause severe damage to subtidal chalk.

## 2. Comments on Feature Data

We appreciate the adoption of Natural England's advice regarding the difficulty in distinguishing between subtidal chalk and other rock features. Geophysical data cannot be used to separate these features, and it can even be difficult to identify subtidal chalk from ground-truthed data (e.g., videos and photographs) due to the presence of epifauna. As such, we agree that the precautionary measure of assessing this group of features as 'Subtidal chalk and rock features' is appropriate.

Research conducted so far has indicated that complex outcropped (rugged) chalk is more sensitive to potting than other forms of subtidal chalk (Tibbitt et al, 2020). As such, it is important that we fully understand the extent and distribution of this sub-feature and the map presented in Figure 4 will be extremely valuable for management purposes. As the Eastern IFCA ROV data collected in August and September 2021 has now been fully analysed (O'Dell & Dewey, 2022), we advise that Figure 4 should now be updated to reflect the final published results, including appropriate buffers to account for reported GPS inaccuracies of between 50-100m. In 2021, Natural England also commissioned a report by Cefas which collated existing bathymetric datasets from within the Cromer MCZ (Hawes & Pettafor, 2021). The resulting rugosity maps may be useful here.

## 3. Fishing Activity

The MCZ Assessment repeatedly refers to the potting industry in Cromer as 'small-scale', however the estimated number of pots being worked appears to be at an all-time high (Table 7). Evidence is lacking with regards to the location of potting throughout the MCZ and no restrictive management measures are currently in place. As such, we must use precautionary principles to assume that up to 10,600 pots could potentially be laid on sensitive subtidal chalk and rock features at any given time. For these reasons, we do not agree that this fishery can necessarily be described as 'small-scale' on the sensitive rugged chalk feature without further context or information being provided.

It should also be noted that the size/scale of a fishery alone is not material in making an initial assessment as to risk posed to MCZ features. The significance of *any* impact to features should be fully tested by the assessment process, and therefore the 'small-scale' description of the fishery cannot be used in determining 'no significant risk' to the features of the MCZ.

## 4. Assessment of Pressure-Feature Interactions

Peat and Clay Exposures:

Peat and clay exposures exist in flat and rugged forms throughout the MCZ and are particularly sensitive to abrasion (medium sensitivity) and penetration (high sensitivity) caused by pots, ropes and anchors (Natural England, 2017). Natural England provided advice to Eastern IFCA, dated November 2018 and available on request, stating 'we advise that peat and clay exposures are managed in an equivalent manner to chalk due to their inability to structurally recover from damage'. More robust evidence is needed to demonstrate the recoverability of this feature, alongside information on the frequency of pressure-feature interactions, to confidently state that this activity does not risk hindering the conservation objectives of this feature. Additional evidence is also required to demonstrate the resilience of peat and clay exposures to the abrasive/penetrative impacts of lost gear, and further management measures may be required to minimise these impacts.

Subtidal Chalk and Rock Features:

As noted in our comments on feature data above, Natural England supports the approach of grouping multiple rock features under the descriptor 'subtidal rock and chalk features' where it is difficult to distinguish between them. We also agree that, for the purpose of this assessment, it was prudent to sub-divide this grouping into more specific habitats (hard rock substrates, veneered chalk, etc). However, we advise that if it is not possible to discern one 'subtidal rock and chalk' habitat from another in practice, then it is important that the highest possible sensitivity level should be considered when determining risk. For example, where 'hard rock substrates' cannot be discerned from 'rugged chalk' they should be assessed as having the same sensitivity to pressures as rugged chalk.

*i. Abrasion and penetration of the substratum on and below the surface of the seabed*

While we agree with Eastern IFCA's overall conclusion of 'no significant risk' to hard rock from abrasion or penetration, we must stress that it is often impossible to differentiate between hard rock and chalk features using survey techniques currently available. As stated above, appropriate precaution is required when determining the risk to such indistinguishable features.

In the assessment of 'rugged chalk' features to abrasion and penetration, Eastern IFCA have stated that pressures caused by active gears are "short term, small in scale and highly localised". However, based on fishing data presented within the MCZ Assessment (as detailed in 'Fishing Activity' section above),

we do not agree that this is the case and would require further evidence to justify this description of the potting industry's impact on this feature. It is our understanding that continuous pressure is applied to rugged chalk throughout the potting season each year, and that the entire rugged chalk area, as mapped, is the primary focus of the industry (due to an anecdotal higher quality of catch in this habitat).

Whilst we agree that it is likely that "one-off impacts will not result in large changes to the structure of the chalk", it should be noted that the scale of damage is dependent on the formation of the chalk (e.g., sloping/stacked) and the type of fishing gear involved (e.g., pot/anchor), among other variables that are yet to be quantified. It is also important to note that all damage to subtidal chalk is permanent, and that even small, localised impacts can accumulate and result in large changes to chalk structure over time (Tibbitt et al 2020).

Evidence presented by Tibbitt et al (2020) and O'Dell & Dewey (2022) have identified a number of instances of damage that can be attributed to fishing activity, however they do not determine the significance of these impacts in the context of natural change, and they do not attribute a timescale over which such damage has likely occurred. Further investigation is therefore required in both areas as part of the Adaptive Risk Management (ARM) approach adopted at this site. Additionally, there needs to be a commitment to a detailed and timely plan for further research and monitoring in order for the assessment conclusions to be robust.

Whilst NE agrees that the threats to overall site Conservation Objectives are more likely to be of concern if pressures are exerted over the medium/longer term, we do advise that in the short term there should be a concerted effort to prevent or reduce pressures that we know are occurring now. This will act to reduce the cumulative effect of these pressures on the Conservation Objectives of the site. As such, we advise against the assumption that only long-term impacts should be considered and recommend that additional research and mitigation measures are planned expeditiously with this in mind. Natural England can provide further advice in order to inform the ARM approach at such time that is appropriate, and we look forward to working alongside Eastern IFCA in this area.

ii. Physical impacts to habitat and biota from lost gear

Fishing gear that has been lost or discarded within the MCZ has the potential to apply continuous pressure to features, habitats, and associated communities over an undetermined timescale. We therefore cannot agree that lost gear does not hinder the conservation objectives of 'rugged chalk features', which are sensitive to the abrasive and penetrative impacts of pots, ropes and anchors, in the short- or medium-term. Additional management may be required to minimise these impacts.

## 5. Evidence Gaps

Natural England acknowledge the time and resource that Eastern IFCA have put into gathering evidence on this fishery thus far. However, there are several gaps in our collective knowledge which are yet to be addressed, and which should be acknowledged within this MCZ Assessment.

Firstly, while early studies have identified and characterised instances of damage to chalk by potting (Tibbitt et al 2020, O'Dell & Dewey 2022), further investigation is necessary to assess such impacts in the context of natural change. As stated in previous advice to Eastern IFCA dated August 2020, we believe this evidence can be achieved via the direct comparison of areas that are subject to potting and areas that are not (i.e., areas that are closed to the fishery). Data could then be used to conclusively determine whether potting activities are having a significant impact on subtidal chalk features, or whether these impacts are negligible against the backdrop of natural change. Natural England do recognise that planning is now underway for a study to address this question and look forward to working in partnership with Eastern IFCA and others in this key area of research. We strongly recommend that research in this area should be considered as an essential priority for the 2023 potting season, since the prolonged absence of this information may ultimately lead to Natural England revising its position on whether an adaptive risk management approach remains acceptable for this site.

We acknowledge that work is also underway to establish the location of rugged chalk within the MCZ. Moving forward, it would be helpful for Eastern IFCA to provide a clear and comprehensive plan of how the true extent of rugged chalk will be determined. Natural England understand that there will always be a degree of uncertainty to the mapping of this area and would therefore recommend that precaution is used when drawing up a final area for management (i.e., recommending management over the largest possible extent of rugged chalk if the data does not exist to reliably refine this).

Additional information on how the MCZ is used by fishers (e.g., the intensity of fishing on and off the rugged chalk) would be useful in determining management measures. We understand that a number of vehicle trackers are currently in place and would be interested to see what evidence these and any other sources have produced.

## 6. In-combination Assessment

Natural England welcomes the consideration of in combination effects and advises that such effects could have implications on overall site Conservation Objectives. We therefore advise that an in-combination assessment should consider whether the cumulative effects of potting activity and other plans/projects could adversely impact all features, not only those that have already been recognised as 'at risk' in the 'alone' assessment, and how this may impact the Conservation Objectives of the site.

Natural England is currently working to investigate impacts from recreational activities (e.g., yachting) on features of the MCZ and will present the results once concluded. We recommend that the activities of commercial vessels are also considered in the 'alone' assessment, as initial evidence collected by both Eastern IFCA and Natural England suggest that commercial vessels may also be anchoring within the boundaries of the MCZ.

Concluding Statement

Once again, Natural England would like to acknowledge the huge effort that Eastern IFCA have put into evidence gathering and consultation around this issue to date and your continued close engagement with Natural England, and other key stakeholders, on the development and progress of ARM. We understand that a number of potential management measures are now being considered and consulted on, and we are hopeful that some of these measures can be adopted in 2023. Natural England look forward to continuing working in partnership with Eastern IFCA and others to gather and interpret the evidence required to inform effective Adaptive Risk Management in the Cromer Shoal Chalk Beds MCZ.

For any queries relating to the content of this letter please contact me using the details provided below.

Yours sincerely,

[redacted]

[redacted]

E-mail: [redacted]
Telephone: [redacted]

### References

Hawes, J. & Pettafor, A. 2021. Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ) Bathymetric Re-gridding and rugosity assessment. Natural England.

O'Dell, J. and Dewey, S. (2022). Cromer Shoal Chalk Beds MCZ Imagery Analysis Final report. A report to Natural England by Seastar Survey Ltd. 63 pages.

Tibbitt, F., Love, J., Wright, J., Chamberlain, J. 2020. Human Impacts on Cromer Shoal Chalk Beds MCZ: Chalk complexity and population dynamics of commercial crustaceans. Natural England Research Report number 04412.

## Appendix 3 – Description and Intention of Proposed Byelaw Provisions

| Paragraph (and sub-paragraph) | Title of provision | Description and intention |
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| 1 (all) | Interpretations | To provide a definition and give specified meaning to terminology used in the byelaw. |
| 2 | Coordinates | The coordinates used to define the area to which the byelaw applies are measured from WGS 84 datum. |
| 3 | Commencement | The byelaw will come into force on confirmation by the Secretary of State. |
| ***Prohibitions*** | | |
| 4 | Prohibition to fish using pots without a valid permit or endorsement | To prohibit fishing using pots within the Cromer Shoal Chalk Bed area (as defined in Schedule 1, to include the designated MCZ and the inshore area 200m from the low water mark) without being the holder of, or the nominated deputy of a holder of, a valid permit or endorsement.<br><br>Whelk fishing is exempted in the exemptions section later as this is covered by the Whelk Permit Byelaw 2016. |
| 5 | Prohibition on using pots without marking pots and strings | Adapted prohibition from Whelk Permit Byelaw 2016, particularly in reference to 'fishing' rather than 'setting' so it applies to all aspects of using the gear. The Whelk Byelaw is also amended.<br><br>Fishing using pots is prohibited unless pots are tagged with tags provided by the Authority at cost and marked with buoys. This is applicable both to individual pots and to strings of pots |
| 6 | Requirements for buoys | Provision requiring buoys used to be of sufficient shape and size to be visible, marked with the number of the permit associated with the pots.<br><br>For registered fishing vessels, the port letters and number of the vessel must also be clearly visible. |
| 7 | Prohibition on fishing from a vessel unless named on permit | Includes reference to the skipper of a vessel having to be named on the permit too to avoid doubt.<br><br>A person fishing using pots from a vessel must be named on the permit for that vessel and only fish the pots associated with that permit (unless written agreement has been issued by the Authority) under paragraph 8. |
| 8 | Exemption if vessel unable to put to sea | Provision to enable vessels other than those named on the permit to be used where the vessel is unable to put to sea. Adapted from Whelk permit byelaw to include reference to conditions set under an agreement. |
| 9 | Permit conditions | Generic provision prohibiting fishing except in accordance with any conditions attached to permits or endorsements. |
| ***Permits and endorsements*** | | |
| 10 | Permits & endorsements (1) | Provision enabling the Authority to issue permits (commercial and recreational categories) for fishing using pots and endorsements for fishing using pots where access is restricted. |

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| | | Endorsements are intended to enable the flexible management of small and discrete areas within the MCZ without creating multiple permit categories within on MPA.<br><br>The byelaw is intended to provide a framework mechanism for implementing flexible and adaptive management in Cromer Shoal Chalk Beds MCZ, to enable the delivery of an Adaptive Risk Management approach to potting in the site as advised by Natural England. This is done through the use of permits to which flexible permit conditions and endorsements with their own conditions can be attached.<br><br>The MCZ designation covers a relatively small area of the sea (321km$^2$) and some of the designated features and habitats, in particular raised outcropping subtidal chalk, which is more sensitive to impacts from potting, are only present within small, discrete areas. These areas require separate management measures that would not be necessary in the whole site. Endorsements attaching to permits are intended to enable the Authority to flexibly manage these areas without creating multiple permit categories within one Marine Protected Area. |
| 11 | Permits and endorsements (2) | The Authority has discretion to issue permits and endorsements in accordance with any applicable eligibility policy.<br><br>Permits and endorsements do not create legal title.<br><br>Only one permit can be issued per vessel and this is valid for a maximum of 12 months.<br><br>Permits are not transferrable. |
| 12 | Restricting permits and endorsements | Provision enabling the Authority to restrict the number permits and endorsements issued, subject to the procedure in Schedule 2. |
| 13 | Nominated deputies | Permit holders may nominate persons to fish under the authority of their permit. These persons become 'nominated deputies' and are named on the permit. |
| **Permit fees** | | |
| 14 | Permit fees (1) | Provision requiring the permit holders to pay a permit and tag fee |
| 15 | Permit fees (2) | The amount payable will be determined by the Authority in accordance with the procedure in Schedule 4. |
| ***Eligibility for permits, endorsements and eligibility policy*** | | |
| 16 | Application for permits and endorsements | Permits and endorsements are issued only on submission of an application form. |
| 17 | Eligibility policy | Provision enabling the Authority to issue, vary and revoke eligibility policy separately in relation to permits and endorsements, subject to the procedure in Schedule 3. |

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| 18 | Meaning of 'the Authority' under paragraph 15 | Sets out that for the purpose of issuing, varying or revoking eligibility policy under paragraph 15, the Authority can either be the members of a meeting which is quorate or the members of an appropriately delegated sub-committee.<br><br>Intended to provide flexibility while assuring due process. |
| ***Flexible permit and endorsement conditions*** | | |
| 19 | Flexible permit and endorsement conditions (1 – issue) | Provision enabling the Authority to attach flexible conditions separately in relation to permits and endorsements within one or more of the categories listed. |
| 20 | Flexible permit and endorsement conditions (2 – process for issuing, varying and revoking flexible conditions) | Generic provision enabling the Authority to issue, vary and revoke flexible conditions in accordance with the procedure under Schedule 2 or under paragraph 21 (temporary changes).<br>Provision established in previous flexible permit byelaws as a means of mitigating challenge on the basis of unlawful sub-delegation of power |
| 21 | Flexible permit and endorsement conditions (3 – temporary changes to flexible conditions) | Provision enabling the Authority to issue, vary and revoke a flexible condition with 12 hours' notice in the case of risk to the achievement of the MCZ's conservation objectives or for other urgent and compelling reasons.<br><br>This provision enables a temporary change to conditions with only 12 hours' notice (i.e. outside of the process referred to in the schedule). The intention is to have a mechanism which allows rapid implementation of measures for the protection of the MCZ where there is a risk to its conversation objectives. Provision tested within WRA byelaw and agreed by MMO legal. |
| 22 | Flexible permit and endorsement conditions (4 – checks and balances on the use of paragraph 19) | Provision requiring the authority to review action taken under paragraph 19, in accordance with the procedure under Schedule 2 and within no later than 3 months after the action was taken.<br><br>A 'checks and balances' provision assuring due process. Provision tested within WRA byelaw and agreed by MMO legal. |
| 23 | Flexible permit and endorsement conditions (5 - offence) | Makes it an offence to breach flexible conditions. |
| ***Fishing information*** | | |
| 24 | Fishing information (1) | This provision enables the Authority to require 'fishing information' where such information may be needed to further the conservation objectives of the MCZ in line with the Authority's duties in relation to MCZs under MaCAA. |

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| | | Fishing is defined in the Interpretations to cover 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. The provision is intended to cover information relating to any part of 'fishing'.<br><br>The provision gives the Authority discretion to request fishing information by whatever means, including through the use of electronic monitoring systems, and with whatever regularity so long as this is considered necessary for the purpose of furthering the conservation objectives of the site.<br><br>'Electronic monitoring systems' is intentionally broad to cover all manner of devices and components of monitoring systems including i-VMS, REM, and pit tags and readers. |
| 25 | Fishing information (2) | This provision provides a non-exhaustive list of the type of information which may be requested by the Authority under paragraph 24. |
| ***Retrieval of fishing gear when notified*** | | |
| 26 | Requirement on the use of fishing gear | The provision stipulates that a person fishing under the authority of a permit must use fishing gear in such a way a as to minimise the likelihood of it becoming lost. |
| 27 | Notification to retrieve gear or cause it to be retrieved | The provision enables the Authority to require, by notification, fishing gear at sea or ashore to be retrieved. |
| 28 | Obligation to retrieve gear when notified | The provision requires a permit holder to retrieve fishing gear or cause it to be retrieved when notified under paragraph 25 within the timeframes specified in the notification or where this is not possible, as soon as is 'reasonably practicable'. |
| 29 | Requirement to provide reasons when retrieval is not reasonably practicable. | The intention is to avoid circumvention of the obligation to retrieve by using the 'reasonably practicable' clause in bad faith. |
| 30-34 | Replacement of pot tags | Provision that tags which are lot or have become illegible are no longer valid.<br><br>Lost tags must be reported to the Authority. The permit holder may apply for replacement tags and the Authority may issue such tags which will be at the cost of the permit holder. |
| ***Exemptions*** | | |
| 35 | Exemption in relation to whelk fishing | The prohibition under paragraph 4 is generic with regards to use of pots to cover any potential unknowns or loopholes (e.g. if made specific to crab and lobster, could claim such were by-catch etc.).<br><br>Whelk potting is already managed under the Whelk permit Byelaw however and so, the exemption relates to persons |

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| | | fishing under the authority of a whelk permit. Any measures needed for whelk potting regards MCZ can be implemented via that byelaw. |
| ***Amendments*** | | |
| 31 | Amendments to the Whelk Permit Byelaw 2016 | Provision amending certain provisions within the Whelk Permit Byelaw 2016 to align it with the new Cromer Shoal Chalk Beds Byelaw 2023 and to allow any measures needed for whelk potting in the MCZ to be implemented via the Whelk Byelaw. |
| **Schedules** | | |
| Schedule 1 | Cromer Shoal Chalk Beds area | The formal boundary of the MCZ excludes the area 200m from the shore.<br><br>This schedule sets out that for the purposes of the byelaw, the Cromer Shoal Chalk Beds area includes the inshore area 200m from the low water mark. This is done for administrative and logistical purposes. Relying on the boundary as defined in the designating order would make prohibitions difficult to enforce – there would be an additional evidential burden in 'proving' a vessel had not deployed all pots within the inshore zone where a permit would not be required. |
| Schedule 2 | Process for flexible measures | Established process for permit byelaws with flexible measures – covers flexible permit and endorsement conditions |
| Schedule 3 | Process for eligibility policy | Sets out a process for setting eligibility policy in relation to permits and endorsements. |
| Schedule 4 | Process for fees | Sets out the fees for permits and tags and the process for reviewing and varying these. |