Potting for Cuttlefish on Seagrass within Torbay MCZ

Officers' Recommendation

That Members note the Officers' report.

Executive Summary

Officers have undertaken an updated assessment of the potential impacts of *potting for cuttlefish* on protected features of the *Torbay Marine Conservation Zone* (MCZ), specifically seagrass and the long-snouted seahorse. The assessment was based on evidence from a combination of stakeholder engagement, experimental trials and the scientific literature.

The assessment concluded that the activity has the potential to hinder the achievement of the conservation objectives of the sites, and therefore management measures need to be implemented to ensure the conservation objections of the site are furthered, to fulfil D&S IFCA's duty under s.154 of the Marine and Coastal Access Act. Natural England has provided formal advice agreeing with this conclusion.

Officers have identified that additional research would be beneficial to inform the best approach to management that will protect the MCZ while balancing environmental, economic and social needs.

Officers therefore propose to undertake additional stakeholder engagement and boat-based survey work to establish how gear modifications may reduce the impacts of potting on protected features, as part of a potential future management approach. The research is to be undertaken during summer 2025 to inform a paper to the B&PSC meeting in September 2025, at which potential management approaches for the fishery can be discussed. This timeframe would allow for any public consultation and drafting work on potential changes to Potting Permit Conditions before the fishery begins again in March 2026.

1. Background

Torbay MCZ is located in South Devon in the D&S IFCA's District, and the site covers an area of 19.8km² of coastline between Oddicombe Beach and Sharkham Point. Beginning at the coastline, the boundary extends between 1–2.5 km out to sea, to a depth of 30m encompassing Hope's Nose near Torquay and Berry Head near Brixham. The Torbay MCZ was designated under the first Tranche of MCZ destinations in 2013 and its designated habitats and species include:

Protected Feature	General Management Approach		
Intertidal coarse sediment	-		
Intertidal mixed sediments			
Intertidal mud	Maintain in Favourable Condition		
Intertidal sand and muddy sand			
Intertidal underboulder communities			
Low energy intertidal rock	Maintain in Favourable Condition		
Moderate energy intertidal rock			
Native oyster (Ostrea edulis)			
Peacock's tail (<i>Padina pavonica</i>)			
Peat and clay exposures			
	Continued overleaf		

Long-snouted seahorse (<i>Hippocampus guttulatus</i>)	
Seagrass beds	Recover to favourable condition
Subtidal coarse sediment	
Subtidal mud	

2. MCZ Assessments and Evidence Gathering

D&S IFCA has undertaken MCZ assessments for all commercial fishing activities that take place within the MCZ and interact with the designated features. Formal advice has been received from Natural England on the conclusions of the assessments undertaken.

D&S IFCA produced a MCZ assessment for the interactions of potting on the feature seagrass beds and long-snouted seahorses (*Hippocampus guttulatus*). It was concluded and agreed by Natural England (NE) that crab/lobster pots and whelk pots would not significantly impact the seagrass and seahorse features due to the activity not occurring in the location of the features. In relation to cuttlefish pots that are currently known to be placed in or near the seagrass, the level of potential impact from cuttle pots on the features was unclear.

There is an active cuttle fishery within the Torbay MCZ. The season for cuttlefish tends to be from March/April to June/July, when cuttlefish come inshore to breed. During this time, pots are set near and in some instances on the seagrass feature, which is also thought to be a key habitat for the long-snouted seahorses. In 2023, there were 21 vessels operating from the ports of Brixham, Paignton and Torquay (in the vicinity of Torbay MCZ) which indicated on their potting permit they have cuttle pots; not all of these will set pots within Torbay or the MCZ. The number of pots per vessel ranges from 1 - 600, with a total of 2566 pots between the 21 vessels. Not all of these pots would be set in the MCZ, and it is unclear exactly how many vessels fish within the MCZ. However, cuttle pots are known to occur on and near to subtidal seagrass beds, and on the mud feature.

The evidence suggests that seagrass is sensitive to several anthropogenic stressors including bottom towed gear and anchoring and mooring. However, there is no primary literature of the potential impacts of cuttle potting on the seagrass feature. Only a small area of seabed is in direct contact with pots/traps and abrasion to the seabed was thought to be minimal. Hall et al (2008) estimated seagrass to have high sensitivity to heavy levels of potting activity (lifted daily, more than 5 pots per hectare), medium sensitivity to moderate and low levels of potting (lifted daily, 2-4 pots per hectare), and low sensitivity to single potting usage (Hall *et al.* 2008). From the evidence available from permit applications, previous potting surveys in 2014 and 2020, and Officer knowledge of the area, the number of pots set on the seagrass was deemed likely to fall within the low to medium levels of impact as set out by Hall *et al.* (2008).

a. Research Undertaken

Following initial research in 2019, into the potential impacts of cuttle potting on seagrass, D&S IFCA carried out a further research project in 2020. The 2020 study used cameras on pots to assess direct impacts on the seagrass beds, based on two fishing scenarios: fishing with a single pot or fishing with a string of four pots. Due to camera battery constraints, pots were set for approximately half an hour, as opposed to a typical soak time of 1 - 5 days. This study suggested that use of single pots in these circumstances had limited impact on the seagrass beds; however, the research did identify that hauling a string of pots can have an impact. The full nature of the impact could not be fully quantified from the study, but it was clear that the hauling of the last two pots on a string of four removed seagrass leaves and potentially rhizomes and roots and caused sediment plumes. The first two pots on the string behaved in

a similar manner to the single pot and appeared to have limited impact on the seagrass: these pots lifted clear of the seabed on hauling, whereas the third and fourth pot on a string tended to drag along the seabed, through seagrass, before lifting through the water. Previous discussions with fishers indicated that they do not use anchors for their cuttle pots, so the D&S IFCA study did not investigate the potential impact of anchors at the ends of the string.

There is a lack of evidence on the direct impact of cuttle potting on the long-snouted seahorse, however there are no reports of harm, and they were seen to be in good health when observed on crab pots (Garrick-Maidment, 2004). Any impact to seahorses would likely be indirect, via the loss of seagrass habitat within the MCZ, which could also be caused by activities other than potting, such as recreational anchoring and mooring. D&S IFCA concluded the activity is not likely to hinder the conservation objectives being met for the feature: Long-snouted seahorse (*Hippocampus guttulatus*).

Although there has been an increase of 10% to the seagrass beds in Torbay since 2014, the potting impact study carried out by D&S IFCA suggests potting with strings of three or more pots could have an adverse effect and has the potential to hinder the achievement of the conservation objectives of the seagrass feature. Due to the evidence that potting with strings of three or more pots could impact the seagrass, more information was required to understand the fishing behaviour in the site, including number of pots, the exact location potting is taking place, and the makeup of strings being used currently. D&S IFCA developed a Monitoring and Control Plan (M&CP) to gather this information.

The M&CP sets out the need to establish a more accurate level of activity, including location, total pot numbers, number of pots on string, and seasonality, and that D&S IFCA would carry out face to face industry meetings to achieve this. Alongside information gathered directly from the industry, it was stated in the M&CP that IVMS will be used to monitor the activity once the roll out of the systems is complete.

b. In Person Meetings and Postal Survey

Meetings were held in Brixham and Torquay on the 20th and 22nd May 2024. All commercial potting permit holders in the ports of Torbay were invited to attend, as well as permit holders from ports outside the area. There were four attendees at the Brixham meeting with just one using a total of 12 cuttle pots in Torbay. There was only one attendee at the Torquay meeting, and they set cuttle pots on a part time basis in areas potentially overlapping with seagrass.

Due to the low turn out to the in-person meetings, questionnaires and charts were sent to the relevant permit holders by post with stamped addressed return envelopes included. A total of 17 questionnaire packs were sent out to those permit holders in the ports of Brixham, Paignton and Torquay who indicated on their permit applications that they used cuttle pots. These questionnaires included the option for fishers to map their cuttle potting activity within Torbay. Including the two relevant responses from the in-person meetings, there were seven responses to the cuttle potting questionnaires. Of these seven responses, three explicitly stated that they target seagrass areas to place their cuttle pots in Torbay; the fishing areas mapped by some other fishers also indicated overlap between fishing activity and seagrass beds. Figure 1 shows the areas where the fishermen indicated they set cuttle pots, six of these overlap with seagrass to varying extents. Vessel 3 stated in their response that there was no seagrass found in the area they set cuttle pots however there is some overlap on the chart near Thatcher's Rock and Hope Nose. These seagrass beds are small, and the area of fishing drawn is broad and therefore there might be no overlap for this vessel.

Table 1 shows the responses from each vessel on number of pots, pots per string, pot spacing and the seabed type targeted. Between the seven vessels there are a total of 852 cuttle pots.

These are set in different configurations: from single pots up to strings of 15. When fished in strings, generally strings have at least three pots.



Figure 1- Cuttle pot locations from D&S IFCA activity survey 2024 overlaid on seagrass feature. *www.ukho.gov.uk/copyright

Table 1 Responses to	D&SIFCA activit	survey 2024 y
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Vessel number	Number of pots	Pots per string	Pot spacing	Seabed type
1	85 x round 45 x square	5	15m	All
2	12	Singles or 2-3	10 fathoms	mixed
3	100	5-15	10-20 fathoms	Sand, mud, rock, tidal
4	70	35 x singles Strings of 3	15 fathoms	Sand
5	120 x round 100 x square	3	12 fathoms	Sand, seagrass
6	120 x round	3	12 fathoms	Sand, seagrass
7	200	-	-	Sand, hard ground, seagrass

3. Conclusion of Evidence Gathering and Revised MCZ Assessment

There is a lack of literature on the impacts of cuttle pots on seagrass. However, the research carried out by D&S IFCA indicated that strings of more than two pots did cause visible damage to seagrass. The level of damage could not be quantified but seagrass was removed by the pots dragging when being hauled. The damage was only seen during the hauling of the third and fourth pots on each string and not the first and second pots. There appears to be no to minimal damage caused by single pots which get hauled directly upwards. This assumes the use of no anchors on single pots or strings of pots; anchor usage would likely increase damage to seagrass during hauling. It should also be noted that the study was not able to quantify an impact to seagrass that may occur while the pots are left to fish, for example due to lateral movements on the seabed. The experimental pots were only in the water for approximately 30 minutes, as opposed to the usual 1 - 5 day soak time, which may give more time for lateral movements, including of single pots.

The activity survey demonstrates that pots are set within the seagrass beds of the Torbay MCZ and that these are often set in at least strings of three which could be having an impact on the seagrass beds.

Based on the work undertaken by D&S IFCA to date, D&S IFCA Officers submitted a revised MCZ assessment to Natural England in April 2025 and under this assessment it cannot be concluded that at current levels the cuttle potting activity is not having an impact on the seagrass bed and seahorse features of the Torbay MCZ.

4. Natural England's Formal Advice

D&S IFCA received NE's formal advice on its assessment of the interaction of cuttlefish pots on the seagrass feature within the Torbay MCZ on 30th May 2025. NE agrees that it cannot be concluded that, at current levels, the cuttle potting activity is not having an adverse effect on the seagrass bed and Long-snouted seahorse (*Hippocampus guttulatus*) of the Torbay MCZ; and therefore, this activity has the potential to hinder the achievement of the conservation objectives.

NE therefore supports the proposal that management measures need to be implemented to ensure the conservation objections of the site are furthered. NE welcomes further data collection proposed under the Monitoring and Control Plan already implemented and welcomes the use of IVMS data as it becomes available to further quantify both the intensity and spatial distribution of potting activity in relation to seagrass beds to inform ongoing adaptive risk review process.

It is also important to note that Natural England have highlighted the uncertainty that still remains regarding the potential impact of individual pots or strings of pots on seagrass when the gear is set for the usual soak times rather than the experimental 30-minute soak time. Natural England also noted that even in cases where the gear is static and the seagrass remains rooted, placement of pots whether single or in strings can cause bruising to seagrass leaves, which may affect plant health and resilience over time. There is no evidence in the literature to quantify the long-terms impacts of this on the site.

5. Next steps

Management measures are required in order to ensure the conservation objectives of the Torbay MCZ are furthered, as required under s.154 of the Marine and Coastal Access Act. Members of the B&PSC therefore need to consider possible management options for the cuttlefish fishery which can be implemented in time for the fishery to begin again in March 2026.

Potential management approaches may include formal measures (such as spatial or gear restrictions under revised Potting Permit Conditions) and/or informal measures (such as a voluntary code of conduct). However, some uncertainties remain regarding the most effective approach for future management, which Officers will seek to address in order to inform future discussions by Members.

Considering the mechanism by which potting is thought to damage seagrass (damage and uprooting especially during hauling of strings of pots in certain configurations), Officers have identified that there is potential for gear modifications to reduce the risk of harm from the fishery; the effectiveness of such modifications will help to determine the most suitable future approach.

Officers therefore propose to undertake the following additional research to investigate this during summer 2025:

- Informal engagement (phone calls) with active fishers to establish viable options for gear modifications, focusing mainly on the number of pots on a string, the spacing between pots on a string and pot spacing relative to the depth of water in which the gear is set.
- Boat-based survey work to investigate the effect of different gear modifications on pot drag during hauling, and gear interactions with seagrass during the time in which the gear is set. To minimise potential impacts to seagrass, the thorough investigation of pot drag would be undertaken on sediment away from seagrass, focusing on sediment plumes created by pot drag during the gear haul phase, while investigations of gear interactions with seagrass will be kept to the minimum necessary to understand the interaction.

The outcomes of this research will be summarised to inform a paper to the B&PSC meeting in September 2025, which will also outline the suitability of potential future management approaches for discussion by Members. Discussion at the September 2025 meeting will allow time, if required, for subsequent consultation and amendments to permit conditions to take place by the end of 2025. This timeframe would allow fishers to engage with the process and outcomes, and prepare if needed for the fishing season to begin in March 2026.

LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985

Background Papers

Torbay MCZ Assessment - TOR-MCZ-005 Static Pots & traps vs. Seagrass 2025 v4

NE Formal Advice May 2025 on D&S IFCA Torbay MCZ Assessment Static Pots vs Seagrass 2025 v4

References

D&S IFCA MCZ Assessment for interaction of Potting on Seagrass and Seahorses in Torbay MCZ V.3 2023.

Garrick-Maidment, N. (2004) British Seahorse Survey Report 2004. The Seahorse Trust.

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Parkhouse, L. (2019) The impact of cuttle pots of seagrass study and egg laying media trial. D&S IFCA report. Available: <u>https://www.devonandsevernifca.gov.uk/wp-content/uploads/2023/09/DSIFCAcuttlepotimpactandeggmediastudy.pdf</u>

Parkhouse, L. (2021). Investigation of potential impacts of cuttle potting on seagrass beds in the Torbay Marine Conservation Zone.

End.