

## Fisheries in MCZ Monitoring and Control Plan

### Marine Conservation Zone: Torbay MCZ

D&S IFCA MCP ID	D&S IFCA Assessment ID	Fishing Activity	Feature(s)	Sub-feature(s)
MCP_TOR-MCZ-001	TOR-MCZ-001-V.2	Towed (demersal)	Subtidal Mud	Subtidal Mud

Iteration 2: March 2024

## Contents

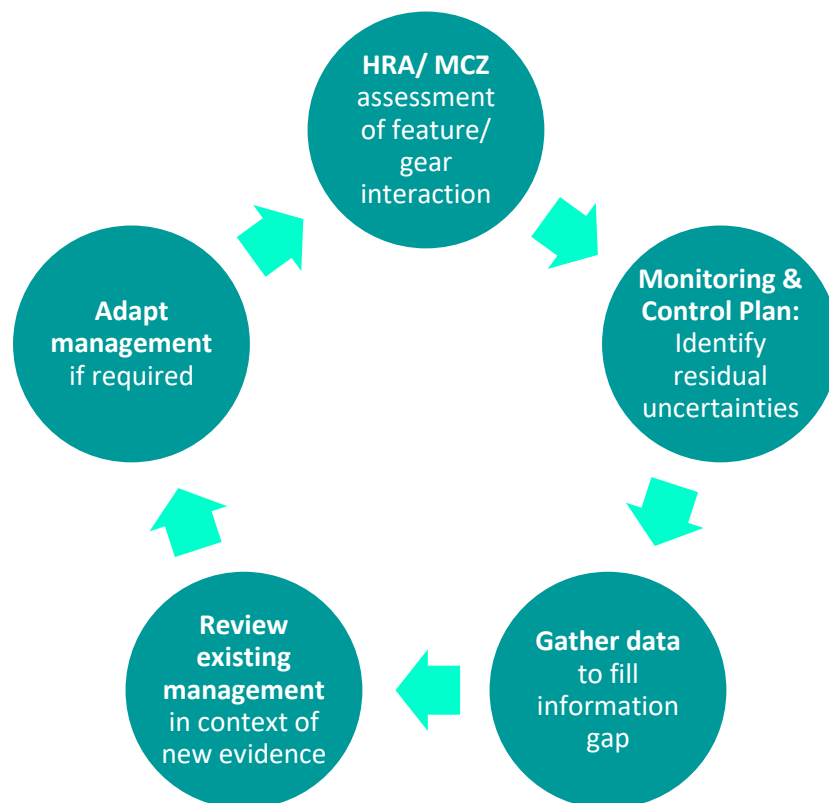
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Version	Date	Author(s)	Comments	Reviewer(s)
1	July 2019	Lauren Parkhouse (LP)		Sarah Clark (SC)
2	May 2024	LP, SC & J Stewart	Updated to set trigger points and revise audit trail	JS, SC, LP

## 1.0 Introduction

Devon and Severn IFCA is committed to an Ecosystem Approach. Adaptive management is seen as a key tool for effectively implementing the Ecosystem Approach (Farmer et al. 2012). Adaptive management acknowledges the high levels of uncertainty in natural systems and the difficulties of making decisions based on this uncertainty. It provides a framework for a flexible and pragmatic approach to marine management, allowing sustainable development whilst adapting management and policies to respond to new information.

Monitoring and Control Plans (M&CPs) have been developed by D&S IFCA for certain gear-feature interactions in Marine Protected Areas (MPAs) where Habitat Regulations Assessments (HRAs) or Marine Conservation Zone (MCZ) assessments find large uncertainties in the scientific and/or fishing effort evidence. They provide information on what monitoring will be undertaken, how this new information will be used, the timeframes for data collection and review of any current assessments. Crucially, M&CPs identify suitable management mechanisms, should they be required following the outcomes of the data collection. The adoption of a permitting byelaw system by D&S IFCA allows for true adaptive management which can respond effectively when risks are identified. The Monitoring and Control Plan Cycle can be seen below.



This Monitoring and Control Plan should be read in conjunction with Version 2 (2019) of the MCZ assessment for the Torbay MCZ.

## **2.0 Residual Uncertainties**

Version 1 of the MCZ assessment concluded that D&S IFCA would put forward a proposal to prohibit demersal trawling within the Torbay MCZ. This involved D&S IFCA undertaking an assessment of the economic impact of the removal of all demersal gears from Torbay MCZ to understand the effective displacement caused by the introduction of these management measures.

A consultation was carried out by D&S IFCA on the proposed change to permit conditions of the Mobile Fishing Permit Byelaw, to include closures of the mud to demersal towed gear. After reviewing the responses and other evidence, including the economic impact assessment, the D&S IFCA's Byelaw and Permitting Sub-Committee decided against a complete closure of the mud feature to towed demersal gear, but removed access to the whole MCZ for scallop dredge gear. Access to towed demersal gear is permitted within part of the MCZ to allow the inshore cuttle fishery to be able to operate in this area. Access to the area for demersal trawl vessels is from 1<sup>st</sup> April to 30<sup>th</sup> of June each year. The MCZ is closed to demersal trawl gear for the rest of the year – a nine-month closure.

A Version 2 of the MCZ assessment has been produced and has detailed the outcome of the research and literature review undertaken. Considering the evidence detailed in this assessment, and the temporal and spatial management currently in place, D&S IFCA concludes that the activity is unlikely to have a significant impact on the mud feature of the site and therefore will not hinder the achievement of the conservation objectives. However, there is uncertainty surrounding the level of fishing effort of the cuttle fishery. This uncertainty has led to this M&C Plan being developed.

### **2.1 Uncertainties around fishing effort**

There is currently a temporal closure of the site, with access for demersal trawl vessels from 1<sup>st</sup> April to 30<sup>th</sup> June inclusive. This access period reflects the seasonality of the fishery informed by the industry and years of IFCA knowledge and therefore, the seasonality of the fishery is well known. There is, however, uncertainty surrounding the number of vessels, and how often each vessel operates within the access area of the site during the open season.

## **3.0 Monitoring Requirements**

### **3.1 Fishing effort monitoring**

In the first instance, D&S IFCA will monitor the number of Mobile Fishing Permit holders which could potentially fish in the Torbay MCZ. This will give officers a list of vessels which need to be monitored in the future.

D&S IFCA now has the means to monitor the level of fishing effort within the site using Inshore Vessel Monitoring Systems (IVMS) and VMS via the Mobile Fishing Permit Byelaw. As of August 2018, this was operational on all mobile gear vessels greater than 6.99m which operate within the district. D&S IFCA can track vessels in real time, go back over a period of

time for each vessel, and set up an area in which to monitor vessel activity. This information allows D&S IFCA to know exactly how often the site is used, and by how many vessels.

Version 1 of this Monitoring and Control Plan stated that the fishing effort data gathered for the 2019 fishery would be analysed and used as a base line and that, once a baseline of effort was established, D&S IFCA would monitor if this level changes year on year. Version 1 of the M&CP specified that the activity data from VMS would be assessed within three months of the fishery closing on the 30<sup>th</sup> of June to determine fishing activity levels. This analysis would include the number of passes by each vessel, the level of multiple exposures, and the area and percentage of the feature which is exposed to the trawling activity. These data would be used to review the MCZ assessment and any likely impact to the feature and communities present, and amendments to the assessments would be made if required. The revised assessments will then be sent to Natural England for advice. If necessary, the new assessment and NE advice will be presented to the D&S IFCA Byelaw and Permitting Sub-Committee to review any changes in management. This time frame will allow any changes to management, if deemed necessary by the Sub-Committee, to be made before the re-opening of the fishery on the 1<sup>st</sup> of April the following year.

In section 4.1 of Version 1 of the M&CP, Officers identified that (i) an accurate level of effort needs to be established via fishing effort monitoring during the 2019 cuttle fishery, (ii) that this baseline would be used to monitor changes in effort level and (iii) a trigger point would then be set.

In subsequent annual M&CP reviews, Officers compared fishing activity to the 2019 baseline (one tow of under twenty minutes duration). In no cases has the level of activity in the site been high enough to trigger a review of the MCZ assessment. During initial stages of the 2023 M&CP review, Officers identified a need to align the fishing activity trigger point with Natural England's advice on the M&CP, based on the availability of evidence from a Before-After-Control-Impact (BACI) study on the impact of otter trawling on mud habitat in the Torbay MCZ (see Annex 1).

Natural England's advice (ref. 288058) stated that "*The Monitoring and Control Plan details that the baseline for fishing effort will be set once the 2019 iVMS data is analysed. At this point the iVMS fishing effort data will need to be reviewed against the findings of the BACI study to ensure that the fishing effort level is not significantly above the fishing effort of that detailed the study. If the iVMS data shows a higher fishing effort than the BACI study then the MCZ assessment might need to be reviewed to ensure that the activity is not hindering the conservation objectives of the subtidal mud feature.*"

The BACI study assessed the impacts of two types of otter trawl: 'box dredge' and 'wing trawl', at three sites each within Torbay MCZ. At each of the sites (six in total), the mobile gear was used for five passes over an area 1200 m long. Sediment composition and the macrobenthic community assemblage were assessed before and after fishing at these sites and at corresponding unfished control sites.

The level of fishing effort identified in the 2019 baseline report and subsequent reviews is considerably lower than the effort used in the BACI study, which found no discernible impact of trawling on either sediment composition or the macrobenthic community assemblage in Torbay MCZ. Therefore, this version 2 of the M&CP has identified more appropriate trigger points for MCZ assessment review.

## 4.0 Trigger points for MCZ assessment review

### 4.1 Fishing effort trigger point

This fishing activity tested in the BACI study will be used as an initial baseline against which changes in effort level will be compared, with trigger points considered as set out below (Table 1). The management mechanism for any proposed changes to management is via the Permit Conditions of the Mobile Fishing Permit Byelaw.

Table 1. Summary of effort monitoring, baseline activity levels and trigger points for MCZ assessment review

	Effort monitoring	Gear types	Baseline	Trigger point	Action if trigger point met or exceeded
1a	Monitor fishery via the number of permits issued to vessels in the Torbay ports (Brixham, Paignton, and Torquay). Permit numbers to be assessed by 31 <sup>st</sup> March each year to establish if monthly monitoring of IVMS is required(see 1b).	Beam trawl (whitefish), Beam trawl (shrimp), Beam trawl (pulse/wing), Heavy otter trawl, Multi-rig trawls, Light otter trawl, Pair trawl, Anchor seine, Scottish/fly, Towed (demersal/pelagic)	20 under-12m Mobile Fishing Permit holders across the Torbay ports <sup>1</sup> .	25 under-12m Mobile Fishing Permit holders across the ports of Torbay, (25% increase in number of Permit holders relative to baseline <sup>2</sup> )	Proceed to 1b
1b	If the trigger point for 1a is met or exceeded, monthly reviews of IVMS data to be undertaken to establish the level of activity in site. Number, length and duration of tows to be analysed.		Based on BACI study demonstrating no discernible impact on sediment composition or macrofaunal assemblage after five passes of mobile gear, at six sites with 1200m-long trawl areas.	Activity levels exceeding that of the BACI study each month or cumulatively across the months of the open season.	Review of MCZ assessment with management updated if required
2	Monitor vessels using IVMS to establish: number, length and duration of tows within Torbay MCZA full review of this evidence and report will be produced by the end of July of each year. The requirement to undertake this monitoring is not contingent on the outcome of monitoring points 1a or 1b above.		Based on BACI study demonstrating no discernible impact on sediment composition or macrofaunal assemblage after five repeated passes of mobile gear, at six sites with 1200m-long trawl areas.	Activity levels exceeding that of the BACI study.	Review of MCZ assessment with management updated if required

<sup>1</sup>Under 12m vessels are being used as the baseline on which to monitor the fishery as to D&S IFCA's knowledge few, if any, over 12m vessels operate in the Torbay MCZ.

<sup>2</sup> A 25% increase in number of Permit holders has been agreed as an appropriate trigger point in other M&CPs (e.g. for shad interacting with netting in Plymouth Sound).

## 5.0 Management Mechanisms

Devon and Severn IFCA is working towards a system where all fisheries' activities are managed by permit byelaws. Those introduced so far are:

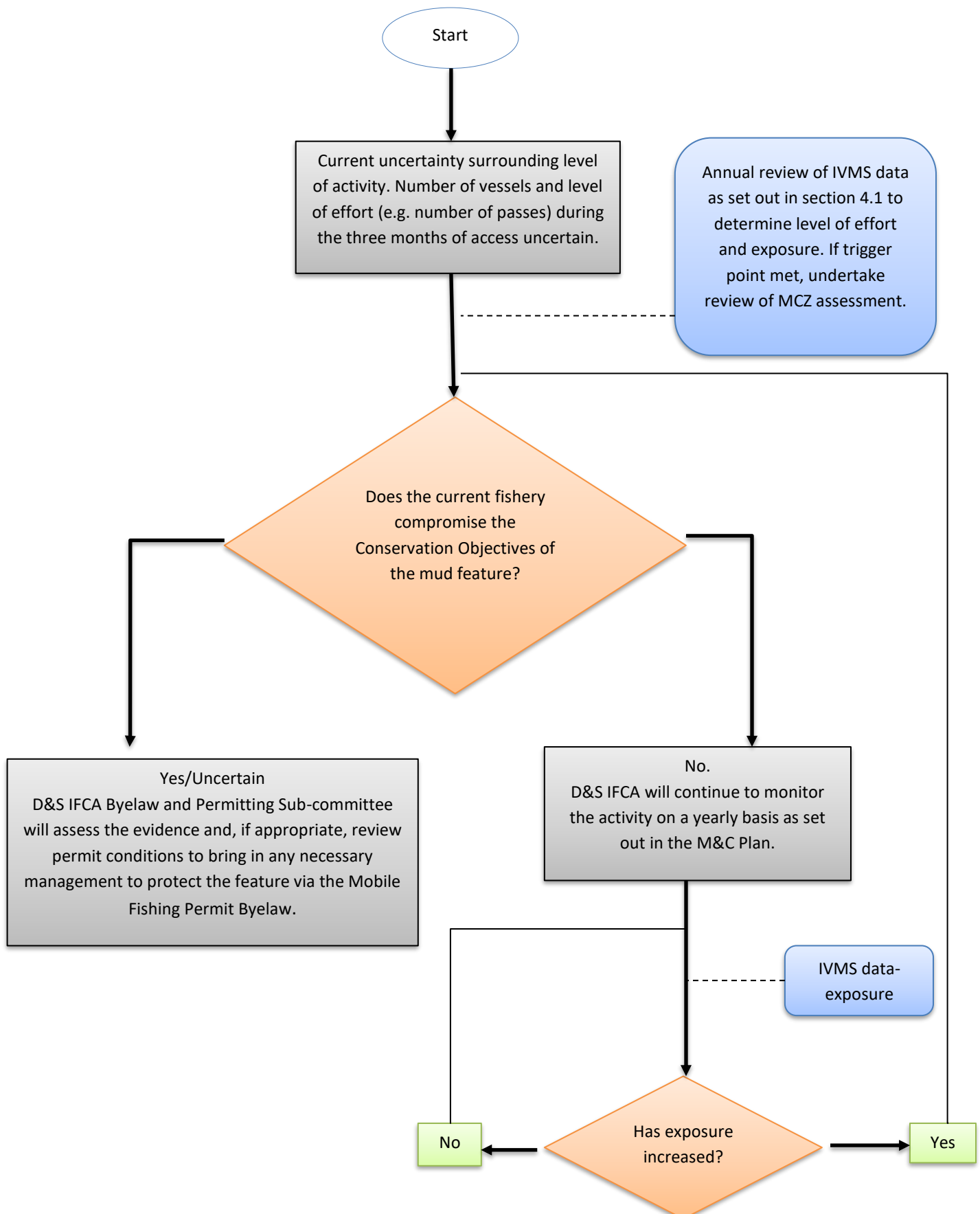
- Mobile Fishing Permit Byelaw
- Potting Permit Byelaw
- Diving Permit Byelaw
- Netting Permit Byelaw

Permit-based byelaws provide scope for both fixed and flexible management measures via the conditions of use within the permits issued to fishers. The scope of the flexible conditions includes catch, gear, spatial and time restrictions, and these sit within the permits issued by D&S IFCA. D&SIFCA has a duty to review all of the flexible conditions, for each of the byelaws listed above, at least every three years but can review conditions within a shorter time period as considered necessary (for example following an MCZ assessment triggered by a Monitoring and Control Plan).

Permit-based byelaws allow separation of different users (fishers) or slightly different types of fishing activity managed by a single byelaw. Separation is achieved by the issue of separate categories of permits dependent on the activity being managed. The permit byelaws often separate commercial fishers and recreational fishers, with the permit's conditions of use proportionate to their needs. By permitting fishers, D&S IFCA has a very direct way of monitoring effort. The permitting byelaws also allow for D&S IFCA to request any additional information for the management of the fishery.

The permit byelaw system can therefore fully accommodate the adaptive management approach being outlined in this Monitoring and Control Plan.

## 6.0 Flow Diagram of Monitoring Process





## Annex 1: Audit trail summary of Natural England's advice

**Annex Table 1.** Audit trail summary for MCZ Assessment and Natural England's advice for demersal trawling on the sub-tidal mud feature of the Torbav MCZ

D&S IFCA interaction ID	Specific gear types	Stage of submission	NE Advice reference	IFCA MCZ Conclusion	NE Advice summary	Inclusion in this Monitoring and Control Plan?
TOR-MCZ-001-V.2	Beam trawl (whitefish), Beam trawl (shrimp), Beam trawl (pulse/wing), Heavy otter trawl, Multi-rig trawls, Light otter trawl, Pair trawl, Anchor seine, Scottish/fly, Towed (demersal/pelagic)	Formal advice received from NE 21/12/2016 on version one of MCZ assessment (TOR-MCZ-001). Version two of the MCZ assessment was submitted to NE on 05/07/2019, and formal advice was received on 24/07/2019.	203365 for TOR-MCZ-001  288058 for version 2	D&S IFCA concludes that the activity is unlikely to have a significant impact on the mud feature of the site and therefore will not hinder the achievement of the conservation objectives.  However, a condition for keeping the area open for three months a year for the cuttle fishery is that D&S IFCA carries out a Monitoring and Control Plan (M&C Plan). The M&C Plan states that D&S IFCA will monitor the fishing activity within the site. This will be done using IVMS which became operational under a permit condition of the D&S IFCA Mobile Fishing Permit Byelaw in August 2018. This will allow the IFCA to determine if the activity and effort is increasing and take appropriate management action if this is the case. Mobile Fishing Permit conditions are flexible and could be used to introduce further management measures, after consideration by Authority members and full consultation.	<i>It is Natural England's view that through their assessments, Devon &amp; Severn IFCA officers appear to have appropriately identified those activities that are likely to hinder the conservation objectives of the feature of the MCZ.</i>  This advice was provided with some minor comments which have been acted upon in order to develop this version 2 of the M&CP	Yes

