

Agenda item B6

From: Katherine Stuart, Scientific and Conservation Officer Philip Haupt, Lead Scientific and Conservation Officer

To: Kent and Essex Inshore Fisheries and Conservation Authority – 21 November 2023

Subject: Marine Protected Area update

Classification: Unrestricted

Summary:

The paper updates Members on the progress in developing fisheries management measures in the Dover to Deal, Swanscombe and Goodwin Sands Marine Conservation Zones.

Recommendation:

The Authority is asked to **NOTE** the report.

Background

The UK is in the final stages of the Marine Conservation Zone Project, which aims to create a network of ecologically coherent marine protected areas (Figure 1). This network will be composed of a series of existing sites (European Marine Sites, Special Areas of Conservation, Special Protection Areas, Ramsar sites, and Sites of Special Scientific Interest) and newly designated sites known as Marine Conservation Zones (MCZs). These sites protect rare and threatened species and habitats, along with those that represent UK marine biodiversity. Together, the network aims to recover and conserve the richness of the UK's marine environment and wildlife, which improves ecological resilience to human activity.

MCZs have been designated in three rounds, or "tranches", across the English coast. The final MCZs of this project were designated in 2019 as part of Tranche 3. The following sites are relevant to the Kent and Essex IFCA:

- 1. Goodwin Sands MCZ
- 2. Swanscombe MCZ
- 3. Dover to Deal MCZ (site designated in Tranche 2, additional features designated as part of Tranche 3)

This represents one of the final stages of the Marine Conservation Zone Project, and the near completion of the English MPA network.



Figure 1: MPA network map in the Kent and Essex IFCA district.

Site Introductions

1. Goodwin Sands

The Goodwin Sands MCZ (Figure 2) is a large and highly dynamic site located off the coast of Kent that straddles the 6nm boundary. The inshore portion of the site is managed by Kent and Essex IFCA, and the offshore portion of the site is managed by the Marine Management Organisation (MMO).

The inshore portion of the site is primarily composed of the Goodwin Sands themselves (Figure 3), which are a series of sandbanks known to move large distances over time, due to storm events and tidal currents. The dynamic nature of these banks results in the dynamic ecology of the site as a whole. The Goodwin Sands is renowned for being a dangerous navigational hazard for seafarers, and as such contain a high density of shipwrecks (Figure 3). These wrecks are not only valued by the local community but form a crucial part of maritime history in the UK.

Within the MCZ, several features are legally designated for protection. These include blue mussel (*Mytilus edulis*) beds, Ross worm (*Sabellaria spinulosa*) reef, subtidal coarse sediment, subtidal sand, and moderate energy circalittoral rock (rocky reef). Ross worm reef is composed of complex habitat formed by tube-building worms and is of particular ecological importance (Figure 3). The hard, complex habitat creates a biodiversity hotspot, and provides crucial shelter for juvenile animals.



Figure 2: Goodwin Sands MCZ feature map. Data provided by Natural England



Figure 3: A; Drone image overlooking the Goodwin Sands (YouTube: MV Ross Revenge). **B;** Ross worm reef (Pearce et al., 2011). **C;** South Goodwin light shipwreck on the northern bank of the Goodwin Sands (Goodwin Sands Conservation Trust).

2. Dover to Deal MCZ

The Dover to Deal MCZ (Figure 4) is an inshore site, extending only ~1km off the coast. This MCZ protects a range of species and habitats, containing sixteen designated features. Four of these features (blue mussel (*M. edulis*) beds, Ross worm (*S. spinulosa*) reefs, moderate energy circalittoral rock, and high energy circalittoral rock) were additionally designated in 2019. The site contains underboulder habitat that create sheltered refuges and scavenging grounds for a variety of animals, and littoral chalk communities which host one of the richest algal assemblages on the Kent coast (Figure 5).



Figure 4: Dover to Deal MCZ feature map. Data provided by Natural England.



Figure 5: **A**; St Margarets Bay, overlooking the Dover to Deal MCZ. **B**; A fish sheltering in reef within the Dover to Deal MCZ (Kent Wildlife Trust). **C**; A European lobster (*Homarus gammarus*) sheltering within underboulder habitat (Flickr: Jlynott).

3. Swanscombe MCZ

The Swanscombe MCZ (Figure 6) is a small site located in the River Thames, near the Dartford crossing. The site protects intertidal mud and the nationally scarce tentacled lagoon worm (*Alkmaria romijni*). The intertidal mud flats along the banks of the river are important bird feeding grounds and provide habitat for the tentacled lagoon worm (Figure 7). Tentacled lagoon worms live in tubes in muddy sediments and are known to have high site fidelity. Therefore, local impacts have major effects on the population, with the worms considered rare across the UK.



Figure 6: Swanscombe MCZ feature map. Data provided by Natural England.



Figure 7: A; Overlooking Swanscombe MCZ from Swanscombe marshes (RSPB). **B;** Oyster catchers feeding in intertidal mud in the Swanscombe MCZ (Yolande Szczech). **C;** Tentacled lagoon worm (*Alkmaria romijni*) (Defra).

Goodwin Sands MCZ Evidence Gathering

The Goodwin Sands MCZ is a large site of significant ecological, historic and community importance. KEIFCA collected more data on features within this site (specifically Ross worm reef, shipwreck sites, and fishing activity) to ensure that the most informed management decisions are made.

Ross worm reef surveys were conducted in 2021 and 2022, using side scan sonar imagery to map the spatial extent of reef. In 2022, additional imagery was taken in areas of interest, using an Adaptive Resolution Imagery Sonar camera. Finally, in 2023, grab samples were taken to ground-truth both types of imagery. All this information has been collated into a habitat map detailing the presence and spatial extent of Ross worm reef within the Goodwin Sands MCZ (Figure 8). This data has been submitted to Natural England to be included in conservation advice packages for the Goodwin Sands MCZ in the future.



ure 8: Ross worm (*Sabellaria spinulosa*) reef spatial extent within the Goodwin Sands MCZ, informed by KEIFCA side-scan sonar surveys, adaptive resolution imagery sonar images, and grab sampling.

The Goodwin Sands themselves are known to be important to the communities of the Kent coast. The sandbanks offer erosion protection to coastal towns, along with containing a high density of maritime archaeology. Shipwrecks are littered throughout the sands, and the location of these have been collected in collaboration with the Goodwin Sands Conservation Trust. This data will be considered in the development of management options for the site.

Finally, data from local inshore fishermen has been collected to further understand fishing intensity throughout the Goodwin Sands MCZ, and to discuss the social and economic impact of implementing management at the site.

MCZ Fisheries Assessment

The development process for all three MCZs includes an MCZ Commercial Fisheries Assessment. Each assessment details the designated features and fishing activities at each site and is developed in collaboration with Natural England. The MCZ Commercial Fisheries Assessments for all three sites have been submitted to Natural England for conservation advice and sign off.

Introducing management

Ross worm reef with the Goodwin Sands MCZ and the Dover to Deal MCZ has a Conservation Objective of "Recover", meaning that management must be implemented to return the feature to a favourable condition. Ross worm reef is recognized as sensitive to bottom towed fishing gear, and therefore the MMO has implemented bottom-towed fishing gear bans across parts of the offshore portion of the Goodwin Sands MCZ (Figure 9). KEIFCA is considering a similar approach, with the implementation of bottom-towed fishing gear restrictions within each site being discussed.



Figure 9: Bottom-towed gear ban areas implemented by the Marine Management Organisation as part of their ongoing management decisions for the Goodwin Sands MCZ.

The MMO is planning to release additional Tranche 3 MPA management decisions in February 2024, which includes the offshore portion of the Goodwin Sands MCZ. We are coordinating our timeline for consultation with the MMO, so that stakeholders are informed of the complete management of the Goodwin Sands MCZ. Formal consultation for all three sites will therefore be formally presented to stakeholders once the MMO has released their management options to the public. We will continue to engage with stakeholders on an individual basis and develop management options for all three sites to then conduct a formal stakeholder consultation in February 2024. After this, a byelaw and impact assessment will be developed, which will hopefully, be presented to the authority in the May 2024 meeting.

Recommendation:

The Authority is asked to **NOTE** the report.