

Marine Conservation Zone Assessment

Site name:	Dart Estuary MCZ UKMCZ0057
Protected feature(s):	Coastal saltmarshes and saline reedbeds

Fishing activities assessed at this site:

Stage 1 Assessment

Intertidal handwork: Handworking (access from vessel),
Handworking (access from land)

Miscellaneous: Crab tiling

Bait collection: digging with forks



D&S IFCA Reference
DAR-MCZ-005

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Version control history			
Author	Date	Comment	Version
Lauren Henly	08/2021	First draft	0.1
	24/03/2022	Reviewed by J. Stewart	0.2
	24/03/2022	Comments addressed by L. Henly	1.0

1. Introduction

This assessment has been undertaken by Devon & Severn Inshore Fisheries and Conservation Authority (D&S IFCA) in order to document and determine whether management measures are required to achieve the conservation objectives of marine conservation zones (MCZs). The IFCA's responsibilities in relation to management of MCZs are laid out in Sections 124 to 126, & 154 to 157 of the Marine and Coastal Access Act 2009.

2. MCZ site name(s), and location

The Dart Estuary MCZ is an inshore site located on the coast of south Devon in the south west of England. The site covers an area of 471 ha and encompasses the upper part of the Dart Estuary down to Anchor Stone, south of Dittisham. This site protects a wide range of habitats and species, including a number of rare species. Estuaries are important contributors to a healthy environment and have an important role as a nursery ground for juvenile fish. Large areas of the site consist of intertidal mud, which is a highly productive habitat and provides feeding and resting grounds for wading and migratory birds. This is also an important habitat for the nationally scarce tentacled lagoon worm *Alkmaria romijni*. This is a tiny bristleworm which grows up to 5mm in length and creates and lives in tubes within the mud habitats of the estuary. These worms have tentacles around their mouths used for gathering food from the surrounding muddy sediments. The tentacled lagoon worm is particularly vulnerable to activities that cause changes in its habitat.

The north of the site contains areas of coastal saltmarshes and reedbeds. These provide a refuge for wading birds during high tide and storms and are home to a wide variety of worms, molluscs and crustaceans living in the damp environment between the vegetation.

Estuarine rocky habitats form in flooded river valleys or 'rias', such as the Dart, and provide a hard surface for animals and seaweeds to attach to in areas dominated by sandy and muddy environments. The seaweed species that attach themselves to the rocks form foraging areas for crustaceans and birds at low tide as well as foraging areas and a refuge for juvenile fish at high tide from beaches of intertidal sand, which are exposed to the air at low tide and below water at high tide, to subtidal sediment and rock habitats, which are permanently submerged.

Further information regarding the MCZ and its protected feature can be found in the Dart Estuary MCZ Factsheet.

3. Feature(s) / habitat(s) of conservation importance (FOCI/HOCI) and conservation objectives

Table 1 - Protected features relevant to this assessment

Feature	General management approach
Coastal saltmarshes and saline reedbeds	Maintain in favourable condition

The conservation objectives for these features are that they are brought to, and remain in, favourable condition.

4. Gear/feature interaction in the MCZ categorised as 'red' risk and overview of management measure

None - There are no gear/feature interactions in the MCZ that are categorised as 'red' risk.

5. Activities under consideration

- Intertidal handwork: Handworking (access from vessel), Handworking (access from land)
- Miscellaneous: Crab tiling
- Bait collection: digging with forks

See Henly (2021) for more information regarding fishing activities occurring in the Dart Estuary MCZ.

6. Is there a risk that activities are hindering the conservation objectives of the MCZ?

No,

Evidence:

The shore based activities that occur on the MCZ are not likely to overlap with the extent of this feature, therefore there is no risk that the activities will hinder the conservation objectives of this feature.

7. Can D&S IFCA exercise its functions to further the conservation objectives of the site?

Yes,

Evidence: Monitoring and Control Arrangements

- Monitor activity levels
- Introduction of a new Hand Working Permit Byelaw to manage the use of crab tiles, bait digging and many other hand gathering types of fishing activity.

On the 14th November 2019, the D&S IFCA Byelaw & Permitting Sub-Committee discussed the different options that exist to manage hand working types of fishing activity as set out in a report (D&S IFCA, 2019). The development of a new byelaw was the option selected, however it is envisaged that it will be a slightly different regulatory format as compared to the D&S IFCA permit based byelaws already implemented to manage other fishing activity.

The potential need for a permit to conduct the different activities will become a factor in the on-going drafting work. It is envisaged that the requirement for a permit to conduct bait collection and hand gathering will be dependent on the amounts of resource taken. The Hand Working Permit Byelaw would introduce fixed provisions that apply to all persons. Fixed provisions are expected to include a series of catch limits (bag limits) for different species (sea fisheries resources) that are targeted by different types of hand working fishing methods. The bag limits would provide an upper level of catch (a threshold) that would apply to all persons but providing the individual take of the specified species was below the levels set for personal use, it is not envisaged that a permit would be required for the collection of the resources. Commercial activity would exceed the bag limits for recreational take and would therefore be regulated by conditions of use that would be placed in the permits issued by D&S IFCA. D&S IFCA will be seeking the views of all stakeholders to better inform the decision making needed to set the initial bag limits.

The development of a Hand Working Permit Byelaw is now a longer-term commitment for D&S IFCA. As a reflection of the time and resource required and available to conduct the required elements of the work, including reporting and the decision-making of D&S IFCA's Byelaw and Permitting Sub-Committee, the development of this Byelaw is not included in D&S IFCA's 2022–23 Annual Plan (D&S IFCA, 2022). Key Tasks for 2022-23 reflect what is deliverable with the current level of staffing and financial resourcing available to D&S IFCA.

8. Referenced supporting information to inform assessment

N/A

9. In-combination assessment

Table 2 - Relevant activities occurring in or close to the site

Plans and Projects		
Activity	Description	Potential Pressure(s)
No other plans or projects known to be occurring within Dart Estuary MCZ	The impact of future plans or projects will require assessment in their own right, including accounting for any in-combination effects, alongside existing activities.	N/A
Other activities being considered		
Activity	Description	Potential Pressure(s)
Static – pots/traps: Pots/creels, cuttlepots, fish traps	As there is little to no level of this activity in the Dart Estuary MCZ, no in-combination effect thought to be possible.	Abrasion/disturbance of the substrate on the surface of the seabed Removal of non-target species Changes in suspended solids (water clarity) Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion Smothering and siltation rate changes (Light)
Static – fixed nets: Gill nets, Trammels, Entangling	This activity is currently not permitted to take place within the Dart Estuary MCZ as it falls under the D&S IFCA Netting Permit Byelaw. In the estuary landward of the coordinates set out in Annex 1, Figure 4, a permit holder or named representative is not authorised to use any net other than a seine net in accordance with paragraph 3.2 of the Netting Permit conditions. Therefore, no in-combination effect is thought to be possible.	
Passive – nets: Drift nets (demersal)	This activity is currently not permitted to take place within the Dart Estuary MCZ as it falls under the D&S IFCA Netting Permit Byelaw. In the estuary landward of the coordinates set out in Annex 1, Figure 4, a permit holder or named representative is not authorised to use any net other than a seine net in accordance with paragraph 3.2 of the Netting Permit conditions. Therefore, no in-combination effect is thought to be possible.	
Lines: Longlines (demersal)	As there is little to no level of this activity in the Dart Estuary MCZ, no in-combination effect thought to be possible.	
Seine nets & other: Beach seine/ring, shrimp push nets, Fyke and stakenets	As there is little to no level of this activity in the Dart Estuary MCZ, no in-combination effect thought to be possible.	
Aquaculture	The activity is occurring, but the location of the activity does not overlap with the extent of the feature assessed, therefore no in-combination effect is thought to be possible	

D&S IFCA conclude there is no likelihood of significant adverse effect on the interest features from in-combination effects addressed within Table 4.

10. NE consultation response

N/A Natural England has not been consulted at this stage.

11. Conclusion

The activities assessed are not believed to be occurring within the extent of the assessed feature on the MCZ. Therefore, D&S IFCA conclude that there is no significant risk of the activities hindering the achievement of the conservation objectives for Dart Estuary MCZ.

12. Summary table

Feature or habitat of Conservation interest	Conservation objectives/ Target Attributes (Natural England, 2021)	Activity	Potential pressures from activity and sensitivity of habitats to pressures. (Natural England, 2021)	Potential exposure to pressures and mechanism of impact significance	Is there a risk that the activity could hinder the achievement of conservation objectives of the site?	Can D&S IFCA exercise its functions to further the conservation objectives of the site? If Yes, list management options
Coastal saltmarshes and saline reedbeds	Maintain the range and continuity of the habitat and its natural transitions within saltmarsh types and to other habitats seaward and landward. Maintain the total extent and spatial distribution of coastal saltmarshes and saline reedbeds.	Commercial fishing; Intertidal handwork: Handworking (access from vessel), Handworking (access from land) Miscellaneous: Crab tiling Bait collection: digging with forks	See Annex 2 for pressures audit trail	Bait digging on the Dart Estuary is only known to occur occasionally on the intertidal mud at Flat Owers (Henly, 2021). Bait digging, crab tiling and hand gathering in the Dart Estuary MCZ occurs mostly on A2.3 intertidal mud, and therefore does not overlap with the extent of this feature	Based on the current extent of these activities on the Dart Estuary there is not believed to be a significant impact of the shore-based activities on the protected features assessed	Yes, Management measures could include: 1. Monitor activity levels 2. Introduction of a new Hand Working Permit Byelaw to manage the use of crab tiles, bait digging and many other hand gathering types of fishing activity.

13. References

- D&S IFCA. 2019. Managing Hand Working Fishing Activity: A Focus on Bait Digging. Supplementary Report for the B&PSC – Information & Evidence, V2.0. Devon & Severn Inshore Fisheries and Conservation Authority, Brixham, Devon.
- D&S IFCA. 2022. Devon and Severn IFCA Annual Plan 2022 - 2023. D&S IFCA, Brixham, Devon.
- Henly, L. 2021. Dart Estuary MCZ Fishing Activity Report. Devon & Severn IFCA, Brixham, Devon.
- Natural England. 2021. Conservation Advice for Dart Estuary Marine Conservation Zone (MCZ). <https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UKMCZ0057&SiteName=Dart&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAAra=&NumMarineSeasonality=,0&SiteNameDisplay=Dart%20Estuary%20MCZ&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Dart%20Estuary%20MCZ#sitemaps> (Accessed 3 August 2021).

Annex 1: Site Map(s)

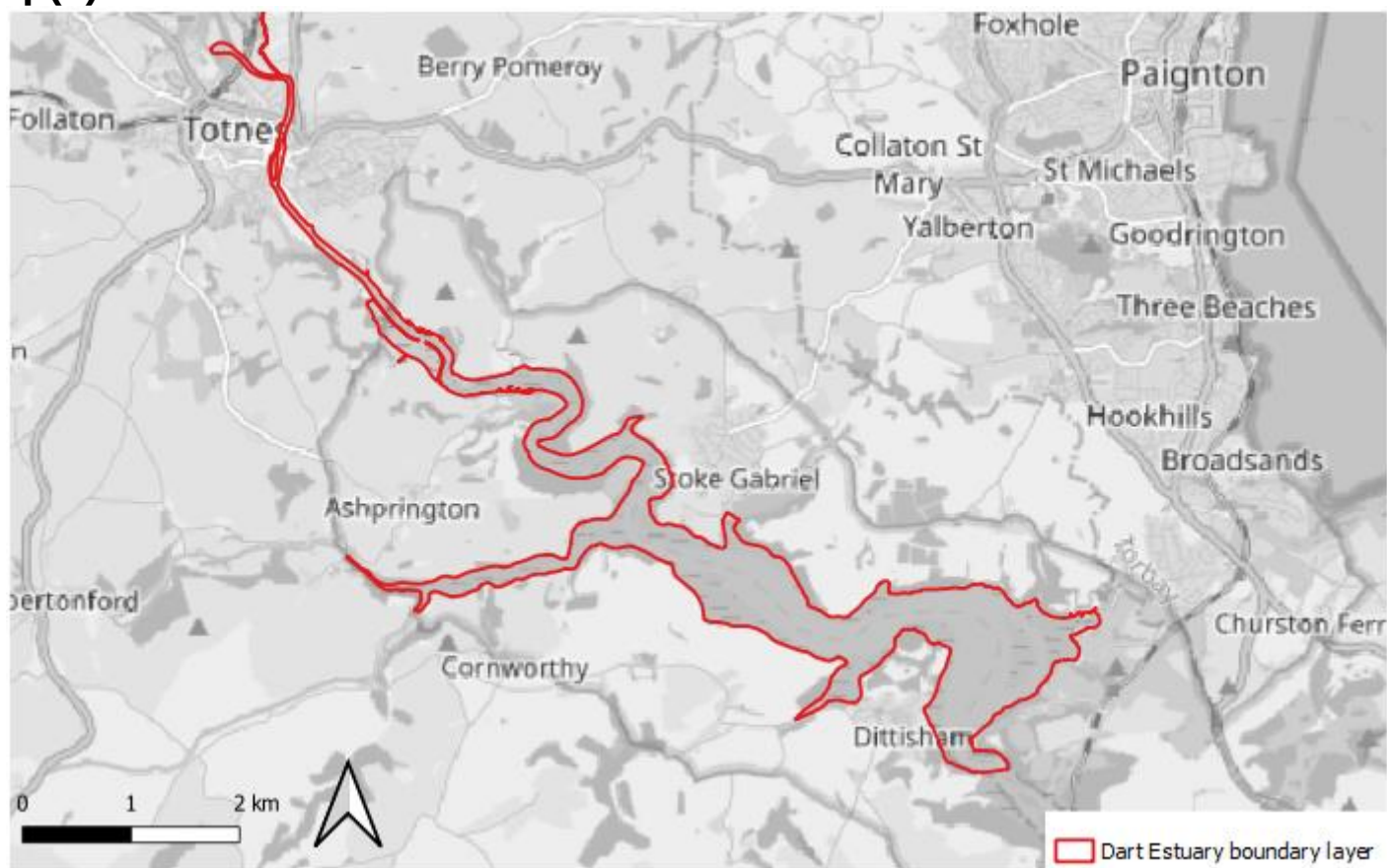


Figure 1: Dart Estuary MCZ boundary

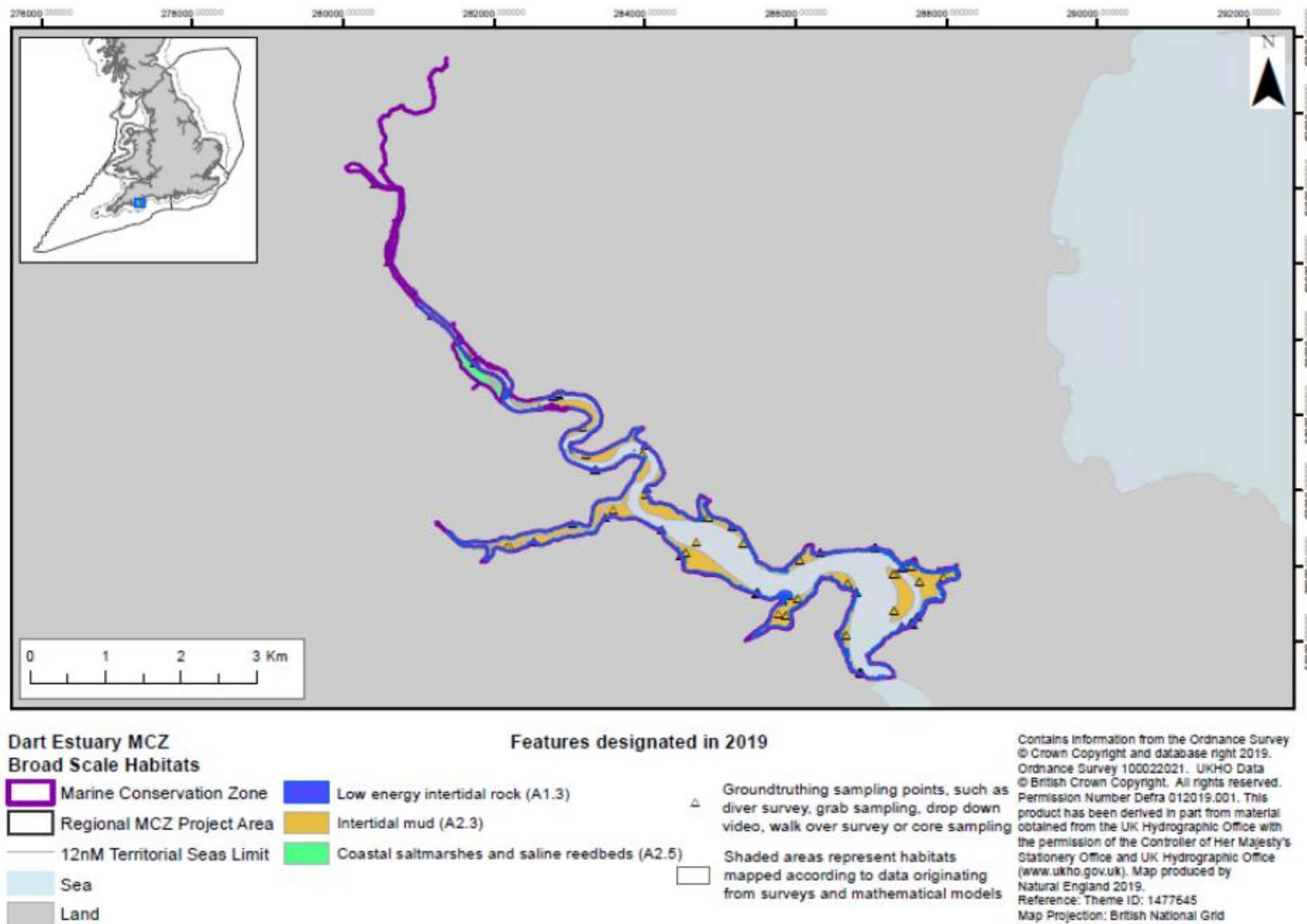


Figure 2: Extent of features (low energy intertidal rock, intertidal mud, and coastal saltmarshes and saline reedbeds) designated in the Dart Estuary MCZ

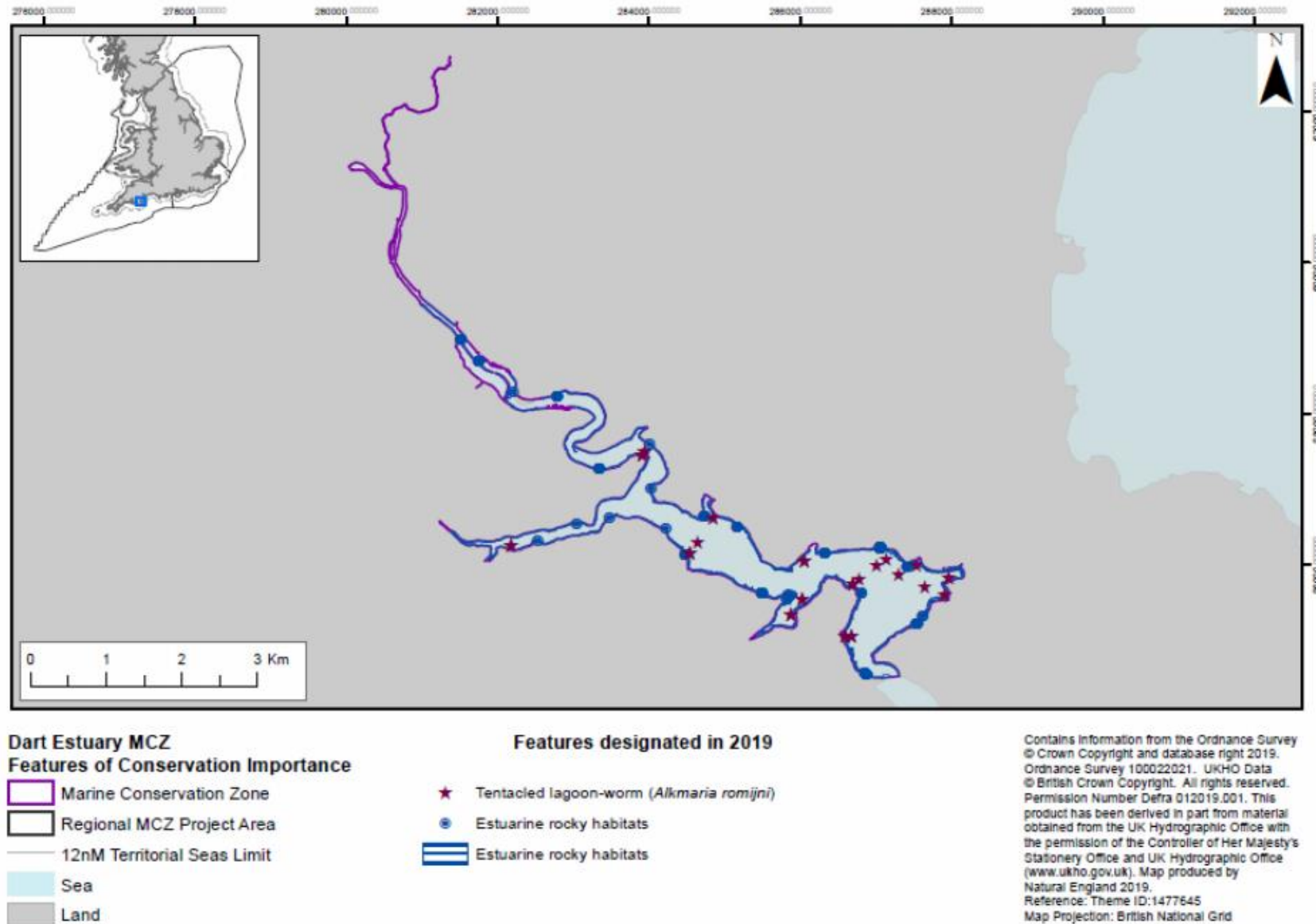
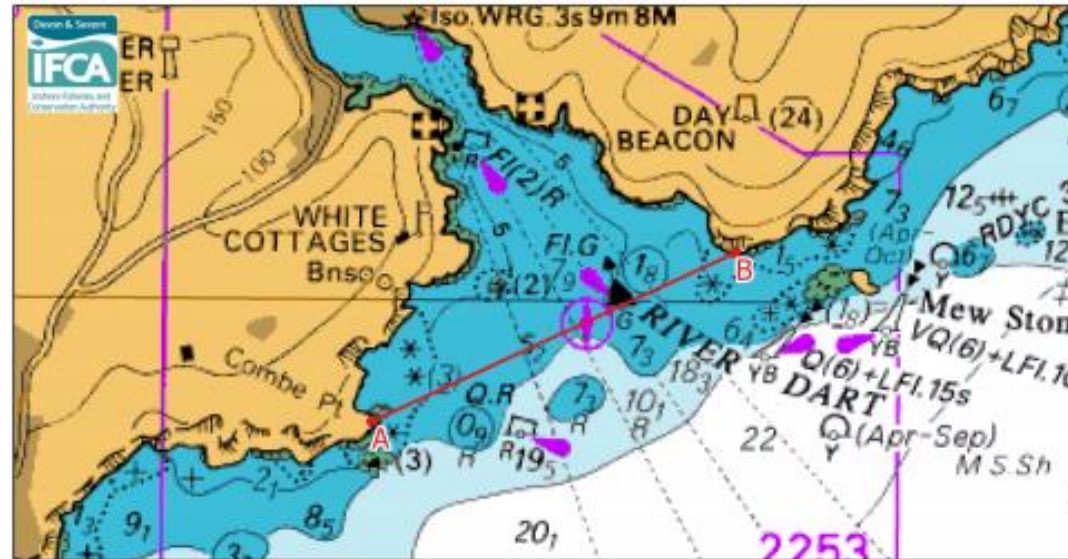


Figure 3: Extent of features (Tentacled lagoon worm *Alkmaria romijni*, Estuarine Rocky Habitats) designated in the Dart Estuary MCZ



— Estuary closing line

River Dart closing line latitude and longitude positions:

Point	Latitude	Longitude
A (Combe Point)	50° 19.634'N	003° 34.266'W
B (Inner Froward Point)	50° 20.141'N	003° 32.583'W

Figure 4: River Dart closing line latitude and longitude. No access landward of the line to the use of nets other than a seine net in accordance with paragraph 3.2 of the Netting Permit Conditions.

Annex 2: Pressures Audit Trail

Fishing Activity Pressures: Shore-based activities	Coastal saltmarshes and saline reedbeds	Low energy intertidal rock	Intertidal mud	Estuarine rocky habitats	Tentacled lagoon worm	Screening Justification
Abrasion/disturbance of the substrate on the surface of the seabed	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	IN - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Habitat structure changes - removal of substratum (extraction)	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	IN - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	IN – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Removal of non-target species	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>IE</u>	IN - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Removal of target species		<u>S</u>	<u>S</u>			OUT - Not applicable
Deoxygenation	<u>NS</u>	<u>S</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	OUT – Insufficient activity levels to pose risk at level of concern
Hydrocarbon & PAH contamination	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	OUT - Not applicable
Introduction of light		<u>S</u>	<u>NS</u>	<u>S</u>		OUT - Insufficient activity levels to pose risk of large scale pollution event
Introduction or spread of invasive non-indigenous species (INIS)	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>	<u>IE</u>	OUT – Insufficient activity levels to pose risk of large scale pollution event
Litter	<u>S</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	OUT – Not applicable
Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals)	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	OUT - Not applicable
Transition elements & organo-metal (e.g. TBT) contamination	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	OUT - Not applicable
Underwater noise changes		<u>IE</u>		<u>IE</u>		OUT - Not applicable