

SITE SUMMARY DOCUMENT

Waterfoot Marine Conservation Zone (MCZ)

Subtidal seagrass (*Zostera marina*) bed



Department of
**Agriculture, Environment
and Rural Affairs**

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Waterfoot MCZ

Waterfoot MCZ is located in a small embayment offshore from the village of Waterfoot (within the wider Red Bay area) on the east coast of County Antrim, Northern Ireland (Figure 1). The seabed in the MCZ encompasses mainly sand and gravel sediments.

Waterfoot MCZ has been designated for Seagrass bed (*Zostera marina*) on Subtidal (sublittoral) sand. Seagrass density is declining in UK waters, and although present throughout Northern Ireland (Figure 2), the subtidal bed in the MCZ is extensive and in good condition.



Seagrass (*Zostera marina*) in Waterfoot MCZ

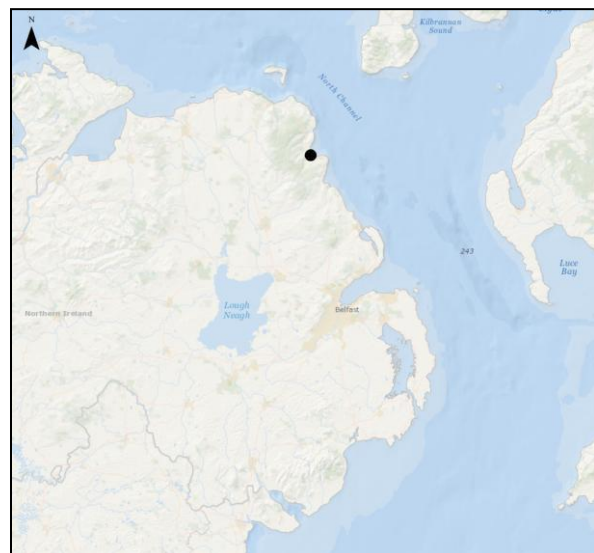


Figure 1 Location of Waterfoot MCZ

Z. marina is a marine flowering plant (angiosperm) with long leaves up to 1-2m long. This seagrass species forms dense beds in sheltered bays, loughs and lagoons from the lower shore to approximately 5m depth. Occasionally it can be found down to 10m if the water is very clear, typically on sand and muddy sand.

Subtidal seagrass beds play an important role in coastal ecosystems and are known as ecosystem engineers. They increase sedimentation by slowing down water currents through their leaves, allowing sediment to settle out of the water, and they stabilise the seabed with their roots. They also provide a hiding place for small marine organisms, nursery areas for fish species, feeding grounds and organic matter which can be incorporated into coastal nutrient cycles. In addition, seagrass beds have been noted for their ability to combat the effects of climate change by capturing CO₂ and incorporating this into extensive root systems.

An epidemic wasting disease in the 1920s and 1930s caused a large-scale deterioration of *Z. marina* communities throughout Western Europe. Further decline has been reported in UK waters throughout the years due to anthropogenic activity, such as dredging, anchoring and trampling (in particular for intertidal beds).

Seagrass (*Zostera marina*) with Snakelocks anemone (*Anemonia viridis*) in Waterfoot MCZ



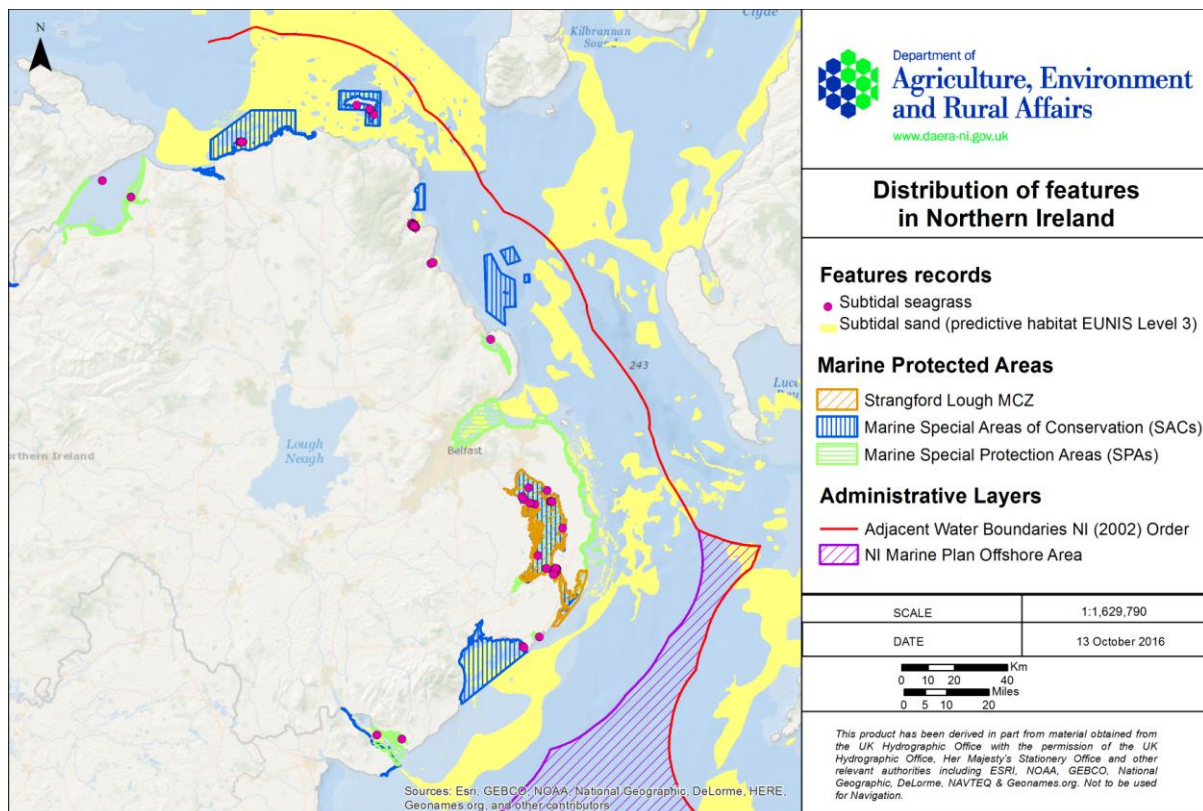


Figure 2 Distribution of Subtidal (sublittoral) seagrass (*Z. marina*) meadows and Subtidal (sublittoral) sand in Northern Ireland waters

The seagrass bed in Waterfoot has been extensively surveyed to determine the boundary for the MCZ (Figure 3); the seaward boundary line follows the edge of seagrass records (presence) while the landward boundary lines incorporate a buffer from the coastline. This buffer will help to minimise anthropogenic effects whilst maintaining the conservation objectives. The seagrass bed is made up of smaller seagrass meadows that appear to be reproductively viable (seed bearing).

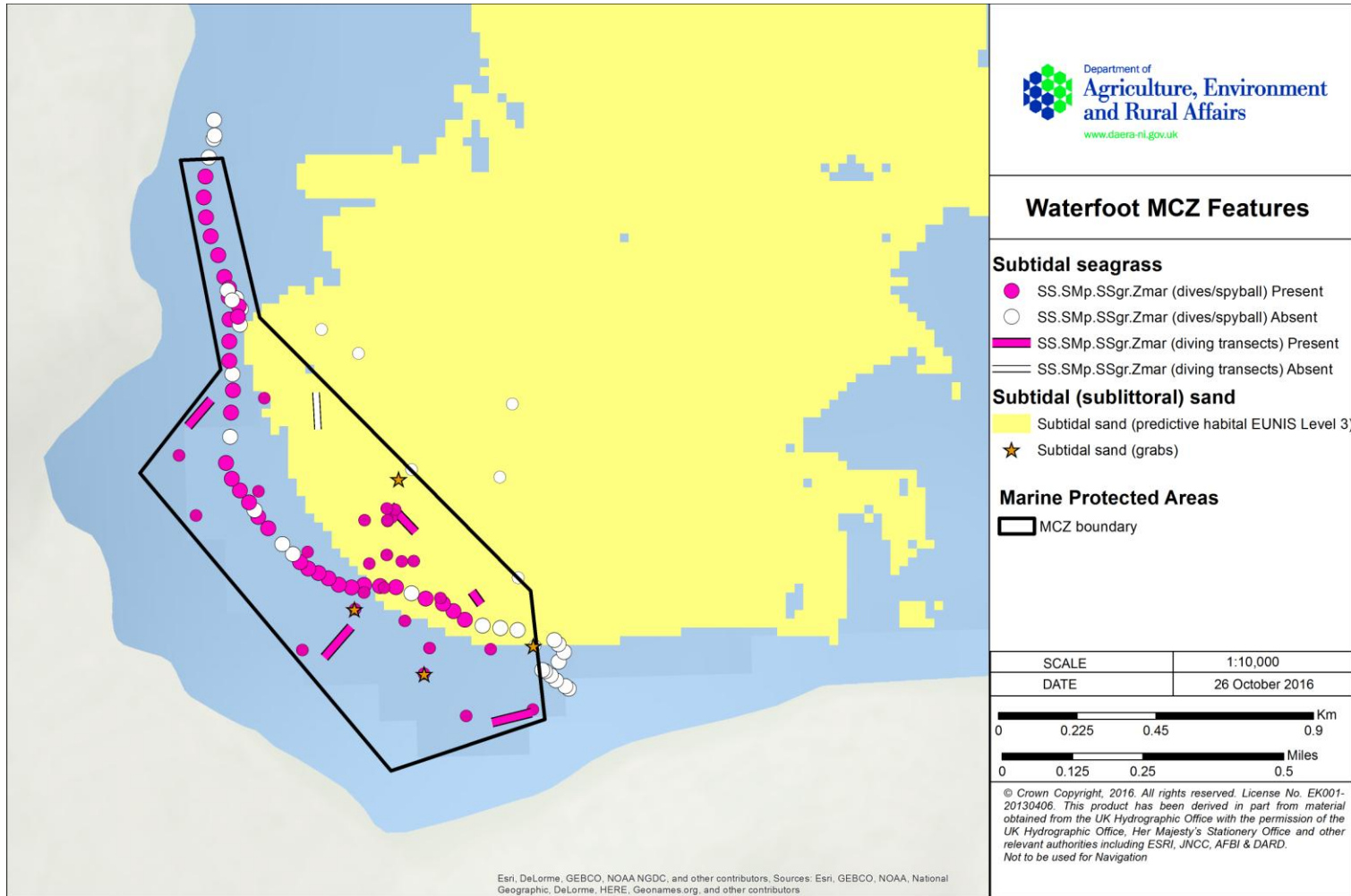


Figure 3 Location of the boundary and features in Waterfoot MCZ

Location (Centroid): 55° 3.630' N 6° 2.750' W

Area: 0.811km²



Seagrass bed (*Zostera marina*) on Subtidal (sublittoral) sand in Waterfoot MCZ

MCZ Features

Habitat:

- Subtidal (sublittoral) sand:
 - Seagrass bed (*Zostera marina*) (Biotope: SS.SMp.SSgr.Zmar)

Management options in the network

Management options include no anchoring/mooring and no dredging or fishing using pots/creels within the MCZ.

Seagrass beds (both intertidal and subtidal) are currently on the following conservation lists:

- Priority habitat under the Northern Ireland Habitat Action Plan.
- Priority habitat under the UK Biodiversity Habitat Action Plan (BAP).
- OSPAR List of Threatened and/or Declining Species and Habitats (declining in Region II – North Sea and Region III – Celtic Sea, and threatened in Region V – Wider Atlantic).
- An important feature in estuarine Sites of Special Scientific Interest, under the UK Wildlife and Countryside Act 1981.
- Habitats Directive (a sub-feature of Annex I habitats).

Records of seagrass meadows in Waterfoot range from 1982 to 2016. The data sources include:

- Northern Ireland Sublittoral Survey (NISS) (1982-1985)
- Sublittoral Survey Northern Ireland (SSNI) (2006)
- Seasearch Northern Ireland volunteer dives (2008-2012)
- DOE Waterfoot pMCZ support spyball and diving surveys (2015).
- DAERA Waterfoot pMCZ support spyball surveys (2016)

Further Information

Further information on Waterfoot MCZ and the MCZ process includes:

- Guidance on selection and designation of Marine Conservation Zones (MCZs) in the Northern Ireland Inshore Region
- Justification report for selection of proposed Marine Conservation Zones (pMCZ) features
- Guidance on the development of Conservation Objectives and potential Management Options
- Waterfoot Marine Conservation Zone (MCZ) Conservation Objectives and potential Management Options
- Assessment against the Selection Guidelines for Waterfoot Marine Conservation Zone
- Data Confidence Assessment for Waterfoot Marine Conservation Zone (MCZ)

All documents are available from our website:

www.daera-ni.gov.uk/publications

www.daera-ni.gov.uk/articles/marine-protected-areas

Diver recording seagrass bed and associated species





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Photos represent Priority Marine Features found throughout the Northern Ireland Inshore Region

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