

# SITE SUMMARY DOCUMENT

## Waterfoot Proposed Marine Conservation Zone (pMCZ)

Subtidal seagrass (*Zostera marina*) beds





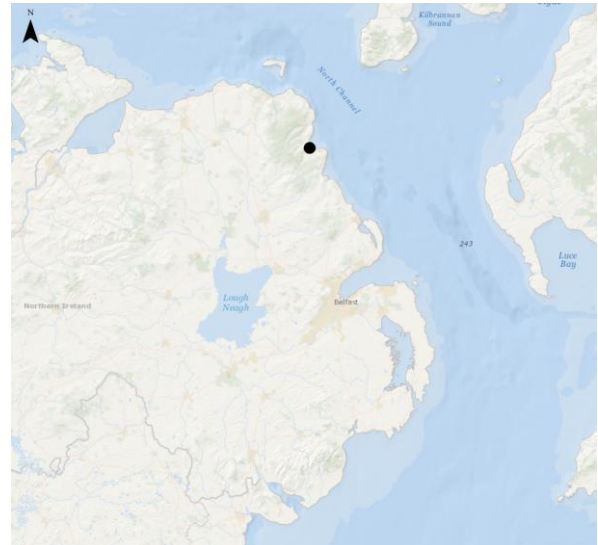
# Waterfoot

## Proposed MCZ

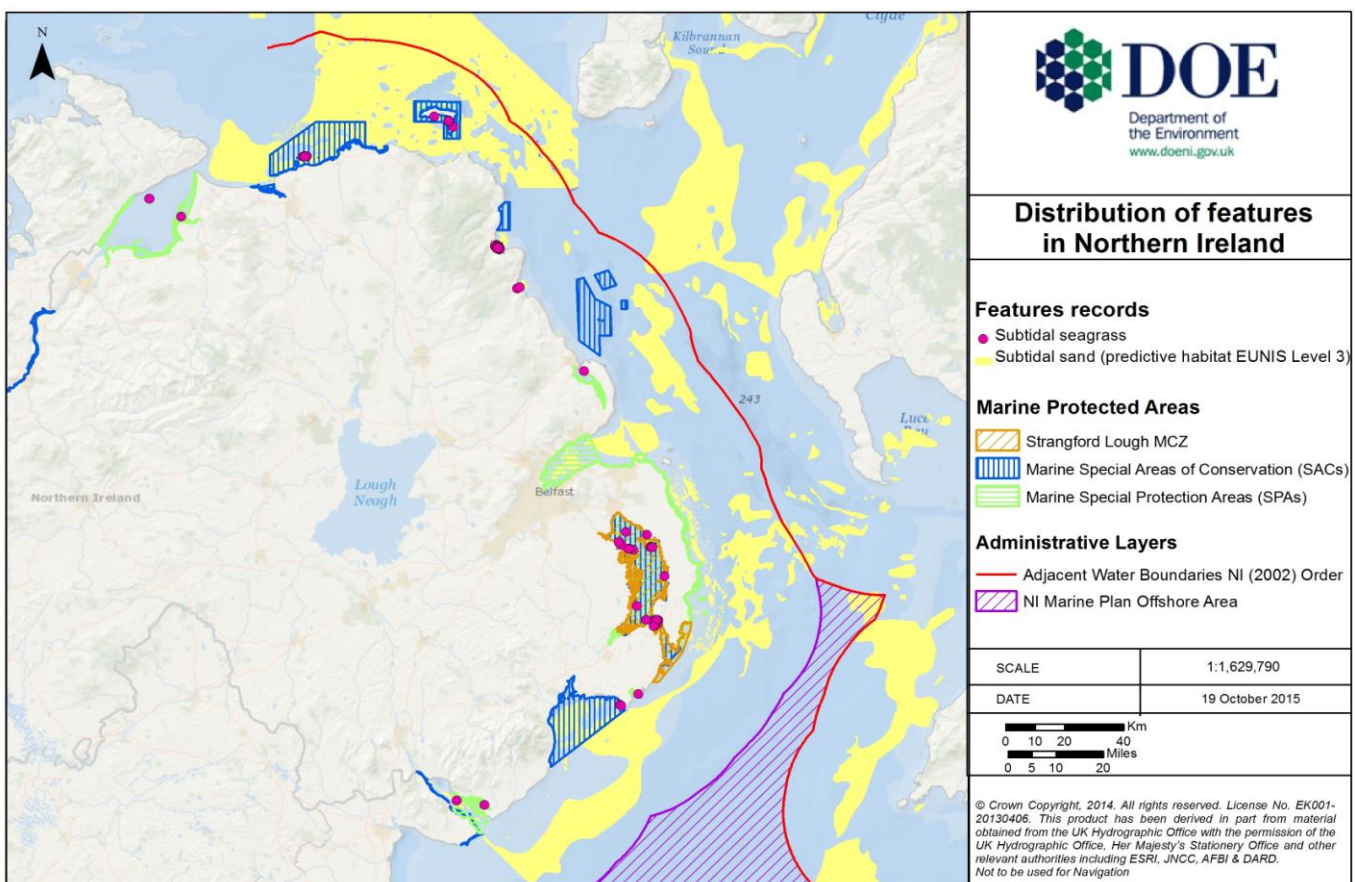
Waterfoot proposed MCZ (pMCZ) is located in a small embayment (within the wider Red Bay area) on the east coast of Antrim, Northern Ireland, offshore from the village of Waterfoot (Figure 1). The seabed in the pMCZ encompasses mainly sand and gravelly sandy sediments.

Waterfoot pMCZ includes an extensive Seagrass (*Zostera marina*) bed on Subtidal (sublittoral) sand, possibly the largest in Northern Ireland. Although seagrass density is declining in UK waters, this Seagrass bed in the pMCZ remains in good condition with rich associated biodiversity (Figures 2 and 3).

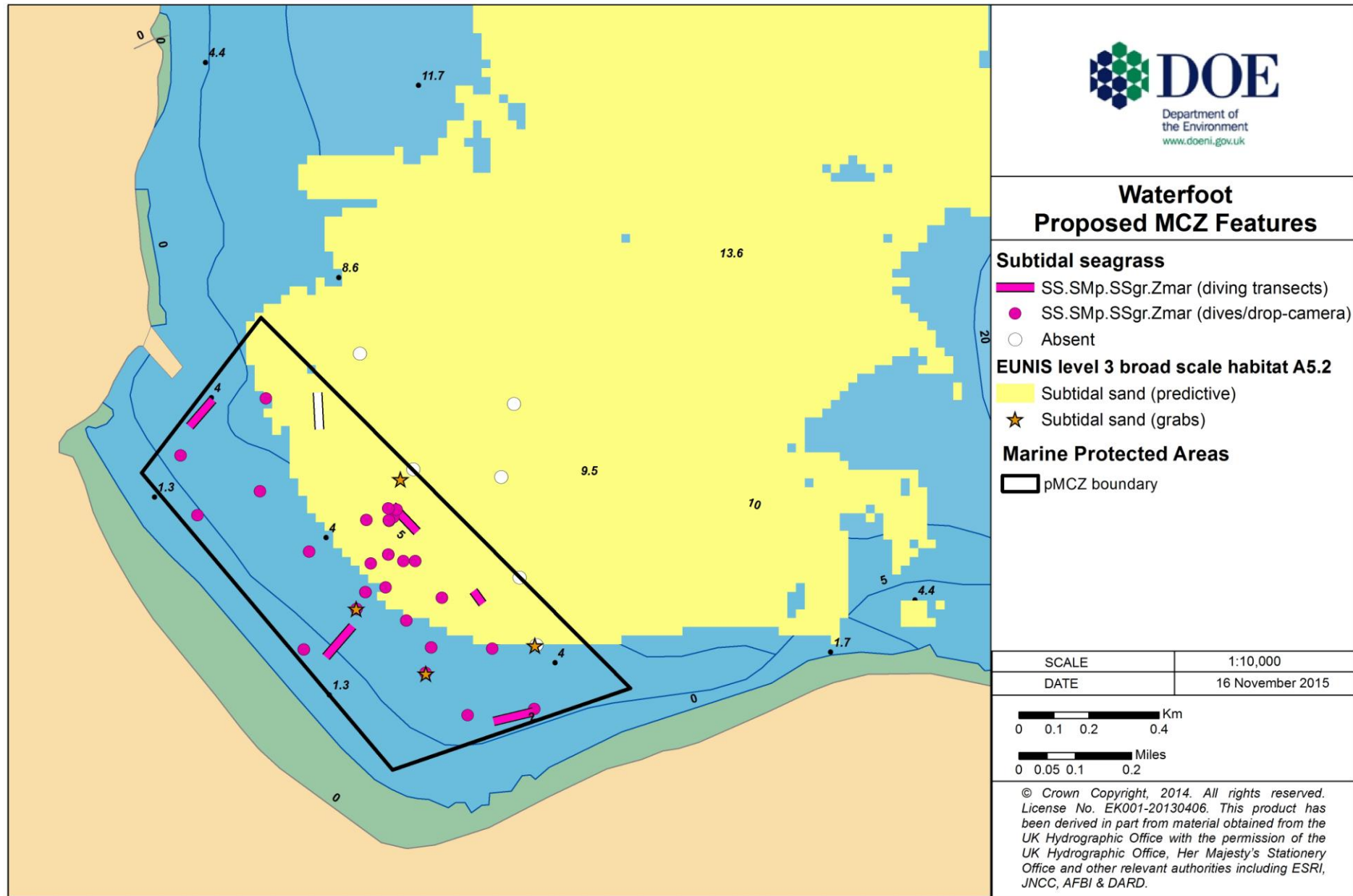
Subtidal seagrass beds play an important role in coastal ecosystems. *Z. marina* communities form a complex ecosystem with ecological importance in many areas as they provide a hiding place for small marine organisms, nursery areas for many fish species, feeding grounds and provide organic matter which can be incorporated into coastal nutrient cycles. They also slow the water circulation, stabilise the sediment and protect it from wave action and so act to reduce coastal erosion. Seagrass is a carbon store and may play an important role in climate change mitigation.



**Figure 1** Location of Waterfoot pMCZ



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



**Figure 3** Location of the proposed boundary of the Waterfoot pMCZ

Location (Centroid): 55° 3.630' N 6° 2.689' W

Area: 0.788km<sup>2</sup>





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

## Proposed MCZ Features

### Habitats:

- Subtidal (sublittoral) sand:
  - Seagrass beds (*Zostera marina*) (Biotope: [SS.SMp.SSgr.Zmar](#))

*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, lagoons and lagoons from the lower shore to approximately 5m depth, occasionally down to 10m if water is very clear, and typically on sand and sandy mud.

Seagrass beds are known as ecosystem engineers as they create their own habitat: they increase sedimentation by slowing down the water currents through their leaves, allowing sediments to settle out of the water, and they stabilize the seabed with their roots. In addition, seagrass beds have been noted for their ability to combat the effects of climate change by capturing CO<sub>2</sub>.

This habitat is of high conservation value for their key role in coastal ecosystems. Their importance for associated microhabitats and species is mainly due to the provision of refuge and shelter and their extraordinarily high rates of primary production (source of organic matter). They also offer substratum for other plant species and nursery areas for many species of fish.

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.

Seagrass beds are currently on the following conservation lists:

- Priority habitat by the Northern Ireland Habitat Action Plan.
- Priority habitat by 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 estuary Sites of Special Scientific Interest, under the UK Wildlife and Countryside Act 1981.

Records of seagrass meadows in Waterfoot range from 1982 to 2015. The data sources include:

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

## Management options in the network

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

# Further Information

For further information on proposed Marine Conservation Zones in the Northern Ireland Inshore Region please contact:

[MarineDivision.InfoRequests@doeni.gov.uk](mailto:MarineDivision.InfoRequests@doeni.gov.uk)

Additional information on the 'Waterfoot pMCZ' 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 proposed Marine Conservation Zone (pMCZ) Conservation Objectives and potential Management Options
- Assessment against the Selection Guidelines for Waterfoot proposed Marine Conservation Zone
- Data Confidence Assessment for Waterfoot proposed Marine Conservation Zone (pMCZ)

All documents are available from our website:

[www.doeni.gov.uk](http://www.doeni.gov.uk)



Diver recording Seagrass bed and associated species







Department of the Environment  
Marine Division  
2<sup>nd</sup> Floor  
Klondyke Building  
Gasworks Business Park  
Belfast BT2 7JA

Telephone: 028 90569262

Email:  
[MarineDivision.InfoRequests@doeni.gov.uk](mailto:MarineDivision.InfoRequests@doeni.gov.uk)

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

