

Location and boundaries

This Marine Character Area (MCA) comprises the outer waters of Cardigan Bay in West Wales, stretching to the limits of the Wales Inshore Waters.

- The northern edge of the MCA responds to the transition from an exposed (high energy) wave climate to the more sheltered (low energy) waters of the southern Llŷn in MCA 18.
- The boundary with MCA 19 (West Pembrokeshire Islands, Bars and Inshore Waters) is consistent with a change from moderate/high wave climate and exposure in this MCA, to moderate/ low to the south west.
- It includes the following Pembrokeshire local Seascape Character Areas 8: North Open Sea and 9: Newport and Fishguard Outer Sand Bar.
- It also takes in the local Snowdonia Seascape Character Area 36: Cardigan Bay.

Key Characteristics

NB: This MCA has strong relationships with adjacent MCAs 15 and 16, which cover the adjacent coastal waters to the north and south of Cardigan Bay respectively. Therefore cross-reference should be made to the profiles for these areas to form a complete picture of the character of Cardigan Bay as a whole.

Key Characteristics
MCA comprises the outer edges of Cardigan Bay with a north-westerly and westerly aspect .
Mudstone and sandstone seabed overlain by Holocene deposits of sand and gravel – forming hummocks on the sea floor and associated areas of shallower water depth (e.g. off Dinas Head).
Water is deeper in the south (up to 40m), compared with shallower water (up to 20m) in the northern section.
Robust infauna (invertebrates that burrow into the seafloor substrate) are adapted to the MCA's mobile coarse sediment.
Important demersal fish spawning and scallop fishing grounds . Other commercial fishing activity includes beam and otter trawling, as well as whelk/lobster/crab potting.
The rich fish life found in the area means cetaceans are regularly sighted , including bottlenose dolphins.
Few wrecks , mainly concentrated on the approaches to Fishguard Harbour.
Large section within the Aberporth military training area , used for missile testing. During periods of live firing, an overriding sense of remoteness is broken.
Parts of the sea are licensed for oil and gas exploration .
Used for leisure sailing by larger boats, commercial craft and ferries to and from Fishguard Harbour.
Coastal landmarks visible in landward views include Cemaes and Dinas Heads, fronting a backcloth of coastal hills including Mynydd Carningli.
The lighthouse at Strumble Head forms a strong day and night-time feature; the beam sweeping across a dark, empty sky.
White flashing cardinal marks (buoys) at the end of the sarnau (MCA 15) can also be seen, especially at night.
The lights of Fishguard and the ferry port can be discernible from closer distances to the shore; however much of the adjacent coast is free from light pollution.
Wave climate increases significantly in the central and northern part of the MCA , as the sea becomes fully exposed to prevailing westerly weather conditions creating a wild and dramatic quality.
Open sea affords expansive views across Cardigan Bay to the surrounding coastlines and beyond, including Pembrokeshire Coast National Park, Snowdonia National Park and the Llŷn AONB .
The MCA provides a strong maritime backdrop and setting to the surrounding nationally designated coastal landscapes.

Natural Influences

The MCA extends to an average of between five and 10 kilometres offshore, comprising a gently shelving seabed reaching a maximum of 40 metres in the south, with patches of deeper water off Strumble Head. The solid mudstone/sandstone seabed is topped by Holocene-derived sand, mud and gravel sediments forming undulations and areas of shallow water, including off Dinas Head. Robust infauna (invertebrates that burrow into the seafloor substrate) are adapted to the MCA's mobile coarse sediment.

Present understanding of changing sea levels since the beginning of the Holocene confirm the premise of the legend of the *Cantref y Gwaelod* (English: Lowland Hundred), the drowned sunken kingdom. Sea levels have risen some 55 metres and the seabed of Cardigan Bay would have been a large tract of fertile land before inundation some 12,000 years ago.

Today's waters are highly exposed to conditions sweeping in from the Atlantic via the Irish Sea, creating high wave climate, particularly in the central and northern parts of the MCA. Wave climate increases significantly in the central and northern part of the MCA, as the sea becomes fully exposed to prevailing westerly weather conditions creating a wild and dramatic quality. On the sea floor in the south of the area, rapid changes in depth create currents in the water which can be hazardous to navigation.

The waters support a rich fish and shellfish resource, attracting harbour porpoise and bottlenose dolphin, with seals also frequenting the reefs and offshore sandbanks. The Cardigan Bay SAC covers much of the central area of the MCA and is of primary importance for its breeding population of bottlenose dolphins. These waters are also considered to be one of the best places in Europe to spot these charismatic animals in the wild. Leatherback turtles can be seen passing through these waters on the route to Tremadog Bay (MCA 14), where there is an abundance of jellyfish for the reptiles to feed on.

Cultural/social influences

The ship losses in the Outer Cardigan Bay are mostly concentrated in the south of the MCA, close to Fishguard and Strumble Head (MCA 16). Their cargoes have a clear relationship with the significant amount of ores (lead, silver, copper, etc) being quarried and exported from the Cambrian mountains, for example, the small steamship *Sutton* which foundered whilst carrying zinc and lead concentrates from Aberystwyth to Antwerp in 1925. Today the area's wrecks prove popular destinations for scuba diving trips.

This MCA contains *HMS Whirlwind*, World War II destroyer with a distinguished record in operations off Norway and in the Pacific, which was decommissioned for use as a target. The vessel sank at moorings in 1974 to form an artificial reef and now lies on its side. The wreck is also sometimes explored by divers.

Cardigan Bay's long-standing role in national defence continues today with use of the MCA by the military as a firing practice area and testing area for drones, where mariners must call beforehand to ensure a safe journey is passing through. The firing area covers much of the wider Cardigan Bay (including adjacent MCA 16). Areas of the MCA are also licenced for oil and gas exploration, although any resource has yet to be exploited on a commercial scale. These waters also support commercially important fishing grounds. Activities include otter trawling, scallop dredging and cockle fishing as well as lobster/crab/prawn potting.

Recreational uses of the sea are limited when compared to the more accessible coastal waters within the inner bay, but include chartered fishing trips and sightseeing for cetaceans and seals, as well as Celtic longboating (including a famous race from Arklow,

Ireland to Aberystwyth every two years which crosses through this area). The MCA is used for leisure sailing by larger boats, commercial craft and ferries to and from Fishguard Harbour.

Aesthetic and perceptual qualities

The character of this area is strongly influenced by its vast scale and openness, with high levels of exposure and feelings of being at the mercy of the elements. Wildness and tranquillity is also broken intermittently by aircraft movements and missile testing relating to Aberporth military training area. The base itself can be seen on the coast (MCA 16) with tall masts and lights visible from a distance. Targets and buoys can sometimes be seen on the water.

Well-known landmarks visible on the coastline include Cemaes and Dinas Heads, fronting a backcloth of conical hills and rocky crags within Pembrokeshire Coast National Park, including Mynydd Carningli in the south-west. The lighthouse at Strumble Head forms a strong day and night-time feature in the south of the area; the beam sweeping across a dark, empty sky. The lights from Fishguard harbour also contribute to the night-time seascape. From the northern part of the MCA, flashing lights indicating the presence of the sarnau (within MCA 15) can be seen.



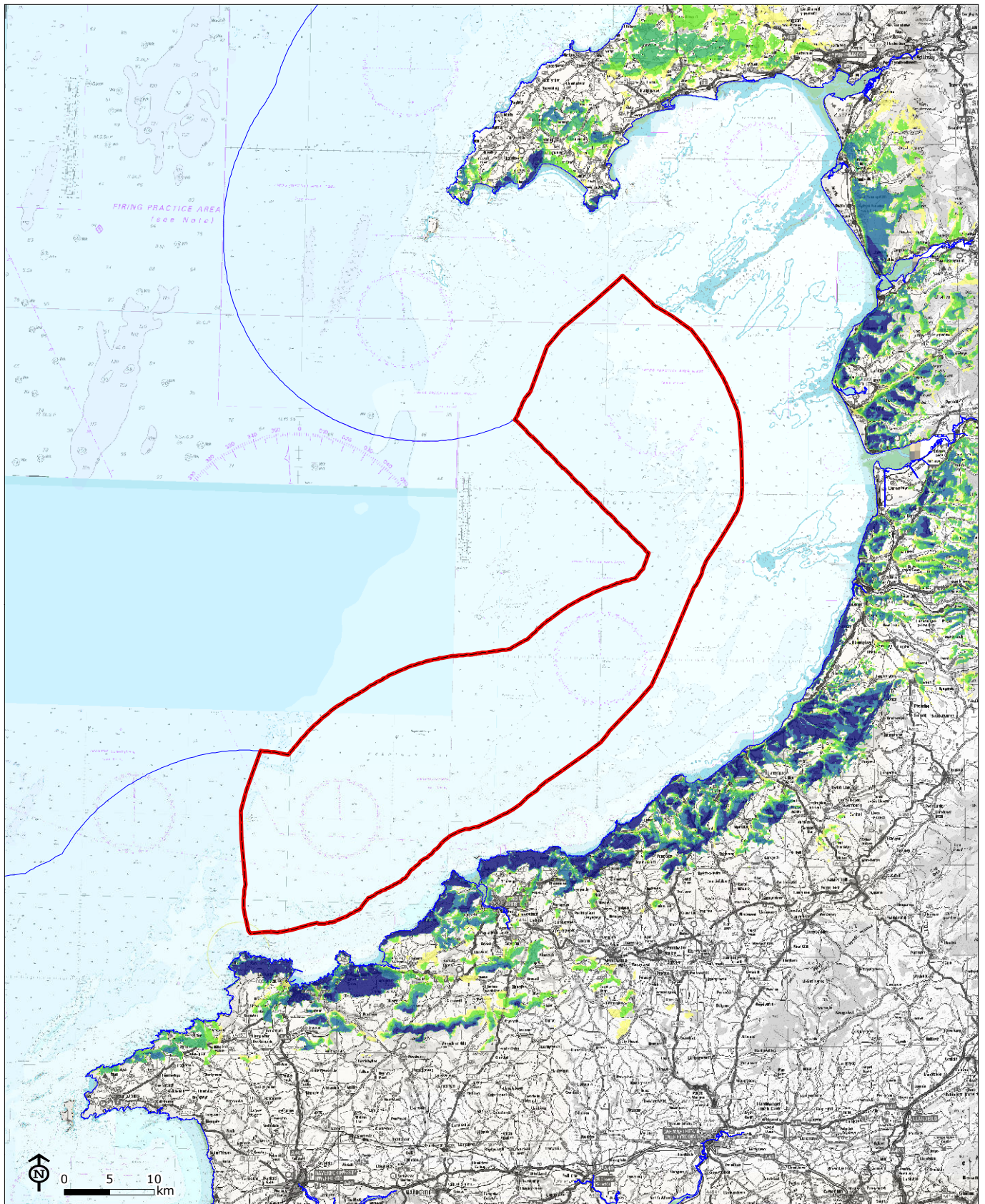
View across the open MCA 17 from cliffs at Abersoch with the Preseli Hills in the distance
© John Briggs

The open and expansive nature of the MCA results in long-distance views, including to the Cambrian Mountains, Snowdonia National Park, the Llŷn AONB and Bardsey Island, with particularly strong visual and functional relationships with MCAs 12, 13, 14, 15 and 16. These waters are prominent in views from the land, particularly from the Llŷn Peninsula looking south east towards the rest of the mainland and vice versa.

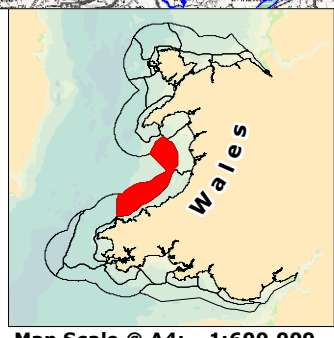
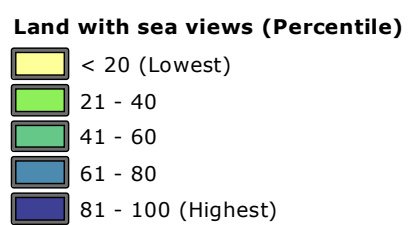
The Visual Resource Maps (VRM) that follow provide a more detailed spatial representation of the visibility of this MCA from the surrounding land in Wales. Please refer to the technical report for an explanation of how these maps were generated and how they should be interpreted.

The first map shows land with views to this MCA, the darker shading indicating land where from which more of this MCA is visible.

The second map shows sea visible from land, the warmer colours being areas of sea that are visible from more places on land. This comes from a national assessment of Wales so the results do not relate specifically to this MCA, whose boundary is overlaid for location only. The four individual versions show how the results vary depending on how far inland hypothetical viewers are located.



- 17: Outer Cardigan Bay
- Wales Inshore Marine Plan Area

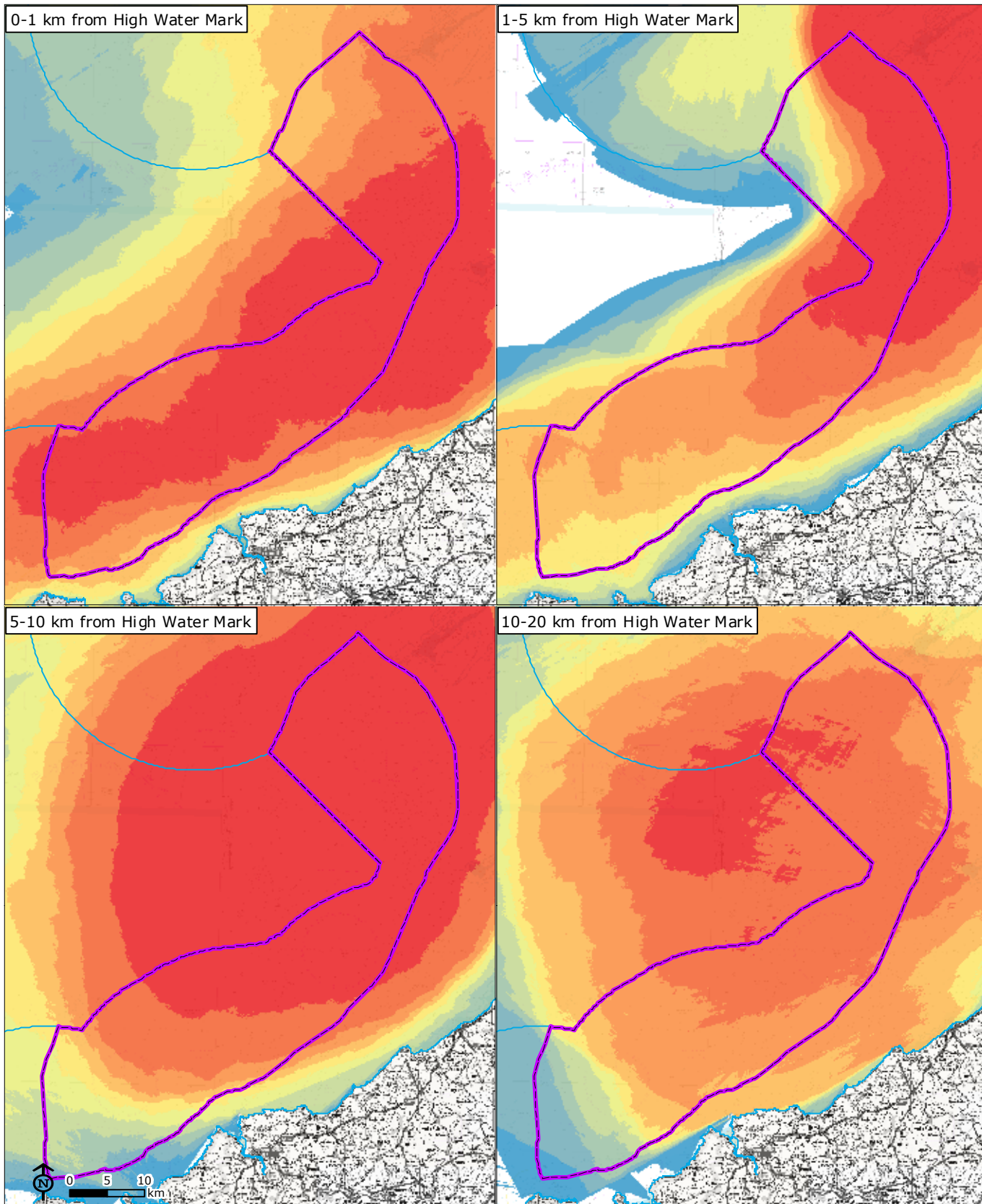


Wales National Seascape Assessment

**Land with Views of:
MCA 17: Outer Cardigan Bay**

Source: LUC, NRW, OceanWise

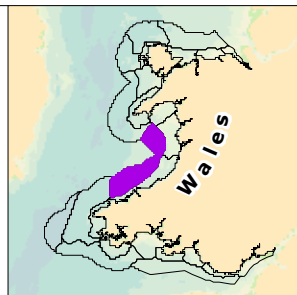
Map Scale @ A4: 1:600,000



- 17: Outer Cardigan Bay
- Wales Inshore Marine Plan Area

Visibility of sea from land (percentile)

	<10 (Lowest)		51-60
	11-20		61-70
	21-30		71-80
	31-40		81-90
	41-50		91-100 (Highest)



Wales National Seascape Assessment

Relative Visibility of the Sea Surface from Viewers on Land
MCA 17: Outer Cardigan Bay



Map Scale @ A4: 1:730,000