

Location and boundaries

This Marine Character Area (MCA) covers the coastal waters surrounding Holy Island, north-west Anglesey. The adjacent coastline takes in North Stack, around the South Stack headland across Penrhos Bay, to end at the eastern extent of Silver Bay.

- The marine boundaries are closely related to the presence of submerged rocks/reefs and associated overfalls, tidal races and rough seas around the coastline.
- The change from high to moderate/low wave climate informs the transition to MCA 8: West Anglesey Open Waters.
- The 30 metre bathymetry contour also guides the outer boundary of the MCA.
- It includes the western half of local Anglesey SCA 13: Holyhead Mountain and all of SCA 14: Rhoscolyn (excluding land above the High Water Mark).

Key Characteristics

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A crenulated AONB-designated coastline of dramatic cliffs, gullies and rocky bays. It includes the well-known North and South Stacks as well as the distinctive white sea arch, Bwa Gwyn .
The steep sides of Holy Mountain (the highest point in Anglesey) plunge down to the sea as sheer rock faces, frequently punctuated by caves .
The coast at South Stack displays exposures of folded sedimentary rocks , documented by Greenly (1919) as 'an amazing revelation'.
Offshore, the schist bedrock is overlain by a thin layer of coarse sediment (mainly in the east; the western seabed is largely exposed bedrock).
Extensive SSSIs and SPAs covering cliffs and coastal habitats . Breeding populations of guillemots, razorbills and puffins combine to create one of the largest colonies of breeding auks in North Wales on South Stack.
A high energy wave environment with the coastline feeling the full force of Atlantic breakers in prevailing south-westerly winds.
Rocky coastal waters affected by strong tidal races (including the 'Holyhead Race'), over-falls and changes in water depth.
A steep, confused and breaking sea is characteristic , especially when the wind and tide are opposed. Dangers are marked by a warning beacon off Rhoscolyn Point and the tall 19th century South Stack lighthouse .
Varied marine habitats , supporting animals such as sponges, anemones and seasquirts, particularly within surge gullies and on vertical cliff walls. Crabs and lobsters are potted from the waters.
This MCA is associated with a long history of human habitation along its coastline, demonstrated in a concentration of nationally important prehistoric sites
Documentary references to shipwrecks refer to the 'back of Holyhead'. It remains a notoriously dangerous stretch of coastline and the wrecks are popular dive sites.
Sheer cliffs plunging to the sea provide an exhilarating challenge for climbers ; elsewhere sea kayaking, recreational boating and angling and other water sports are popular.
Small sheltered sandy coves provide traditional temporary anchorage, popular bathing beaches and launch for water sports .
Seascape setting contains offshore islands (e.g. Ynysoedd Gwyllanod and Maen Piscar), with views across Caernarfon Bay to the Llŷn Peninsula AONB.
Panoramic sea and coastal views afforded from the cliff tops and Holyhead Mountain; including to the conical mountains of the Llŷn AONB and across to the uplands of Ireland.
The sheer and large-scale cliffs form distinctive 'gateway' features into Holyhead Bay for ferry passengers arriving from Ireland.
A wild seascape at the mercy of the elements and defined by the sounds, sights and movement of the sea and its marine life (particularly the thousands of seabirds).

Natural Influences

Holy Island and Penrhos Bay MCA comprises a crenulated coastline of dramatic cliffs, gullies and rocky bays extending from North Stack around Holy Island to the eastern edges of Silver Bay. It extends seaward to cover the coastal waters and rocky islets up to five kilometres from the shoreline. The rugged coastline is strongly shaped by coastal erosive processes and high wave action. Particularly distinctive geomorphological features include the craggy North and South Stacks and the white sea arch, Bwa Gwyn. Small sandy coves punctuate the rocky coast at Trearddur, Rhoscolyn (Borthwen) and Silver Bays, affording relative shelter. The entire coastline is within the Anglesey AONB and the section from North Stack to Porth-y-Post is also Heritage Coast.

The terrestrial seascape is dominated by the imposing landform of Holyhead Mountain, which rises up from sheer, rocky cliffs to a height of 220m AOD. The mountain features in many views from the sea and coast of western Anglesey, and as such has always played an important role in navigation in this part of northwest Wales. It is particularly distinctive when set against the low-lying nature of the rest of Holy Island. Around South Stack the cliffs display some of the most magnificent exposures of folded sedimentary rocks in Great Britain, documented by Greenly (1919) as '*an amazing revelation*'. The SSSI-designated section of coastline includes rocks with fossils cited in the support of a Cambrian age for the exposures – therefore some of the oldest rocks in Wales. Periodic exposures of ancient submerged forests/ peat deposits are found in the intertidal area of Trearddur Bay.

As well as the geological importance of the area, the coastal cliffs and the associated grassland and heaths are of major botanical interest. They are home to the endemic South Stack fleawort as well as the nationally rare spotted rock-rose. The SPA and IBA-designated cliffs are home to important seabird populations comprising some 4,000+ individuals; guillemots, razorbills and puffins combine to create one of the largest colonies of breeding auks in North Wales. Fulmar and kittiwake also nest on these cliffs together with peregrine falcon and chough.



Penrhyn Mawr with dramatic sea currents © John Briggs

Offshore, the schist bedrock is overlain by a thin layer of coarse sediment (mainly in the east; the western seabed is largely exposed bedrock due to intense wave action). Sea conditions around this section of coast are complex due to seabed topography, exposure

and strong tidal currents. The immediate coastal waters are affected by strong tidal races running off headlands, including Penrhyn Mawr, The Fangs, Rhoscolyn Head and the famous Holyhead Race (whirling around the Stacks). These areas are associated with a steep, confused and breaking sea especially when the wind and tide are opposed. The MCA is defined by its high energy wave environment; the adjacent coastline feeling the full force of Atlantic breakers in prevailing south-westerly winds. Submerged rocks and islets form dangerous obstructions throughout the coastal waters, associated overfalls combining with the volatile sea conditions overall to create a particularly notorious stretch of coastline. Dangers are marked by a warning beacon on Ynysoedd Gwylanod (off Rhoscolyn Point) and the tall 19th century South Stack lighthouse.



South Stack lighthouse

The complex marine conditions give rise to varied habitats, including tide-swept bedrock around the headlands of North and South Stack. The bedrock, boulders, sea caves and arches are dominated by animals such as sponges, anemones and seasquirts, particularly within surge gullies and on vertical walls. The rocky waters are also home to commercially important populations of lobster and crab. The relative shelter of Rhoscolyn Bay supports a subtidal seagrass community with many species of algae, crustaceans, molluscs, fish, sponges and anemones. Porpoises and dolphins are also frequently spotted in the waters, feeding on the rich ecological communities found here.

Cultural/social influences

This MCA is associated with a long history of human habitation along its coastline, demonstrated in a concentration of nationally important prehistoric sites including Trefignaeth burial chamber along with Ty Mawr and Penrhos Feilw standing stones. Holyhead Mountain itself is the location of a large Iron Age hillfort and prehistoric settlement occupying a commanding position with panoramic views across the MCA towards Ireland. A promontory fort on the prominent headland of Dinas Porth Ruffyd affords further strategically important views across Caernarfon Bay towards the Llŷn peninsula. The Romans also capitalised on the elevated position of Holyhead Mountain in defending the surrounding coasts and seas, building a watchtower on its eastern slopes.

Stone axes and Roman coffins have been found on the beach at Trearddur Bay, confirming a long history of human use of the foreshore. The area is also the site of an early medieval chapel and cemetery (Towyn-y-Capel), believed to have been used as a

burial ground from the 7th to the 17th centuries. Much of the chapel and associated cemetery has been lost to coastal erosion, but excavations (including of many skeletons) have been undertaken by Gwynedd Archaeological Trust over the last decade to provide an insight into the history of this religious site.



Aquatint by William Daniell, showing the South Stack headland in 1815, connected only by a rope bridge (© Crown Estate, 2013)

Relationships with the dangerous seas surrounding this rocky coast play a major part in the MCA's past and present cultural characteristics. Documentary references to shipwrecks in this vicinity tend to use the phrase 'back of Holyhead'. Admiralty Sailing Directions published in 1870 describe the seas off Rhoscolyn Point as studded with dangers, advising that '*a stranger should not under any circumstances approach within two miles of it*'. The western edge of Holy Island is littered with wrecks, some now popular sites for recreational diving including the *Missouri*, a 130m long vessel which sank in a snowstorm in 1886. The *Matilda* (1853) foundered near South Stack when returning from Africa to Liverpool in thick fog. Small traditional landing places along the exposed coast (e.g. Porth-y-corwgl, Porth-y-post and Porth-ypwll) provide temporary refuge in stormy seas, and Henborth traditionally provided one of the few places where a small boat could be launched to row to the assistance of shipwrecked mariners. Visitors to Breakwater Country Park can view the magazine of a cannon that was fired as a warning to ships passing too close to this dangerous coast. A lifeboat station and slipway is located at Trearddur Bay to assist in modern-day emergencies.

The MCA has a long association with maritime communication, shown in old signal station on South Stack (part of Holyhead-Liverpool Telegraph) which allowed ships to communicate their arrival or loss information to the Underwriters' Room at Liverpool. Modern radio communication masts continue this association, forming prominent tall structures visible in landward views to the south-western slopes of Holyhead Mountain. Porth Dafarch also has a long (and continuing) history as a landfall for submarine telecommunications crossing beneath the Irish Sea from Ireland.

Fishing activity in the coastal waters is dominated by lobster and crab pots, with recreational angling and netting also popular particularly around Porth Dafach and within Traerddur Bay. Links to the traditional oyster industry are also associated with the area, although this activity no longer takes place. The wider area is licensed for oil and gas exploration, as well as quarrying. Shipping and recreational boating/yachting routes from mainland Wales pass around the North Stack headland on their route to Holyhead

Harbour. The sheer and large-scale cliffs form distinctive 'gateway' features into Holyhead Bay for ferry passengers arriving from Ireland.

The MCA and its adjacent coastline is a particularly popular destination for a range of recreational activities. South Stack RSPB reserve and lighthouse are particular draws, with the castellated Ellin's Tower Visitor Centre providing facilities for visitors to watch the sea bird colony, including through live television footage. The sheer cliff faces along the coastline are popular destinations for climbers, and sea kayakers are keen to explore the intricate coastline and sea caves (and ride the tidal races). Chartered sightseeing cruises, fishing trips and diving excursions also take place, with particular hotspots at Gogarth Bay.

The Isle of Anglesey Coast Path and other walking routes traverse the coastal edge, taking walkers to elevated summits – not least Holyhead Mountain, the highest point on Anglesey – rewarding them with panoramic views. The area's sandy coves, including certified bathing water beaches at Porth Dafach and Trearddur Bay, provide sheltered havens for a range of beach-based and water activities. A number of caravan and camping sites support the ever-growing popularity of the area as a visitor and recreational destination.

Aesthetic and perceptual qualities

The overriding perceptual qualities associated with this MCA are those of wildness and remoteness – a feeling of being at the mercy of the elements and a sense of danger arising from the turbulent seas, with their history of ship wrecks, and sheer rocky cliffs which dwarf boats sailing through the coastal waters. The imposing landmass of Holyhead Mountain dominates the seascape, and that of many parts of western Anglesey when viewed from the sea and the Isle's coastline. The colours of vegetation on coastal slopes change throughout the year, with purple heather and yellow gorse producing a particularly dramatic combination and backdrop to the MCA. Views to rough seas and white-tipped waves tell of hidden dangers and stories of loss beneath – contributing to a dramatic setting for this part of the Anglesey AONB.

The presence of large bird colonies on the rocky stacks and cliffs enhance the strong maritime influence of the area and strong sense of being 'at one with nature' due to their sounds and movements combined with that of the coastal winds and waves. The long-standing cultural and religious significance of this part of Holy Island also evokes a strong sense of history and identity. The open character of the MCA affords views across Caernarfon Bay to the north western facing shores of the Llŷn Peninsula AONB and its conical mountains – The Rivals. Holyhead Mountain's elevated nature affords particularly panoramic views which are a major draw to visitors, including to the distant Wicklow Hills in Ireland and Mourne Mountains of Northern Ireland in very clear conditions.

Built development concentrates in the adjacent Trearddur Bay area, where its light colour, lack of containment, and often suburban character stands out in contrast to the otherwise open and very rugged coastal landscape. Caravan sites, notably south of Trearddur Bay, compound this, albeit some are partly contained by the rugged landform. The telecommunications apparatus compound on the shoulder of Holyhead Mountain also detracts, its visually prominent location on the skyline making it a notable feature from both land and sea.

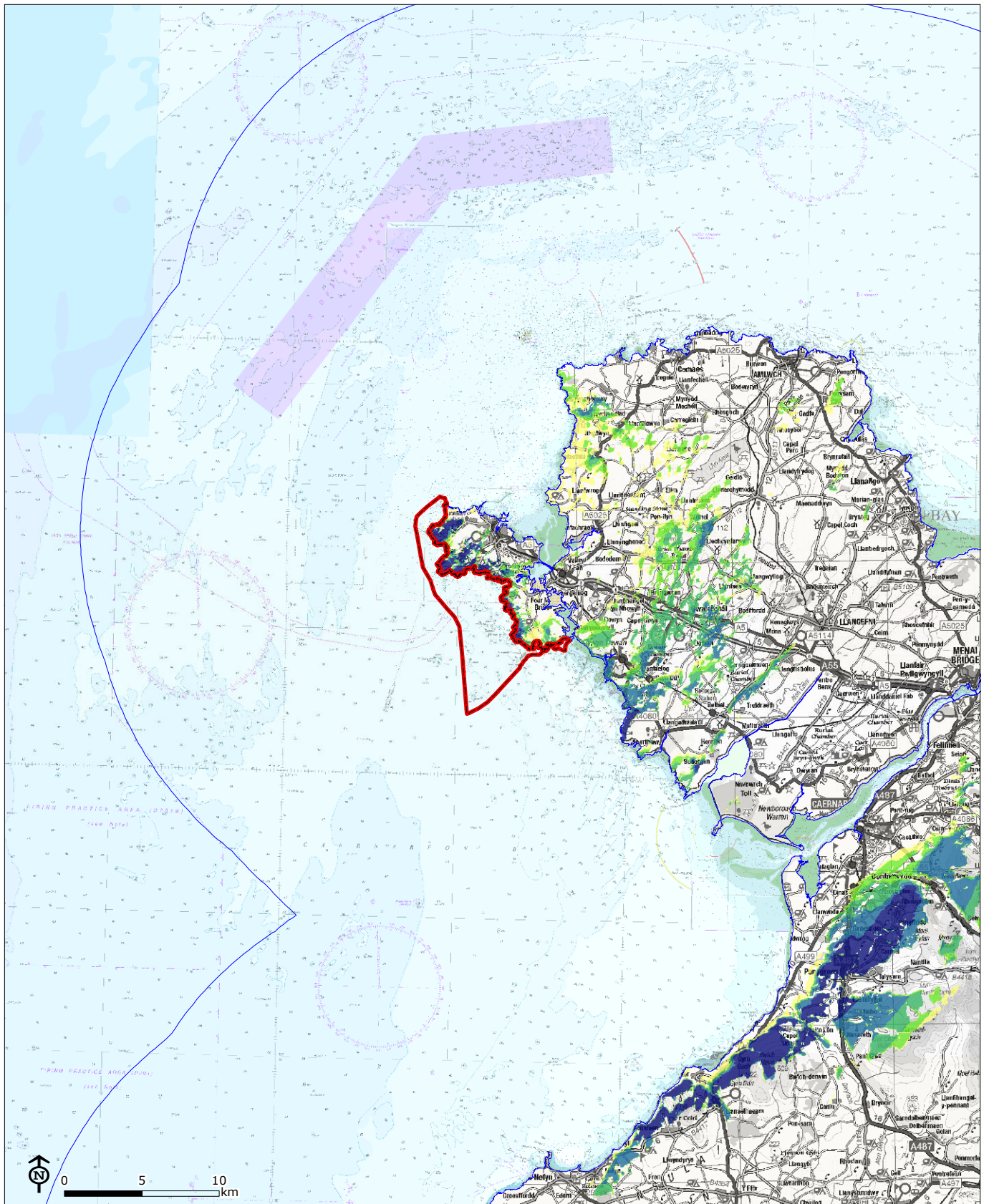
The guiding lights from the Rhoscolyn beacon and South Stack lighthouse (with its 24 nautical mile range) evoke a strong maritime feel to the night-time seascape – the sense of danger ever present.

Overarching levels of tranquillity, wildness and tranquillity are reduced in the summer months due to the numbers of visitors (and associated coastal and marine traffic). Thundering jets overhead en route to and from RAF Valley in Anglesey can suddenly break the peaceful character of the MCA without warning.

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.

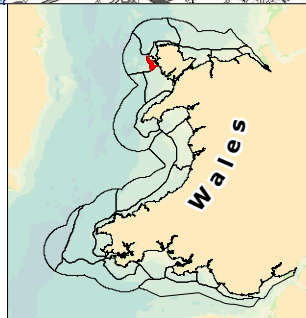
The second map shows sea visible from land, the warmer colours being areas of sea that are visible from more places on land. This comes from a national assessment of Wales so the results do not relate specifically to this MCA, whose boundary is overlaid for location only. The four individual versions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



- 09: Holy Island West and Penrhos Bay
- Wales Inshore Marine Plan Area

Land with sea views (Percentile)

- < 20 (Lowest)
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 100 (Highest)



Wales National Seascape Assessment

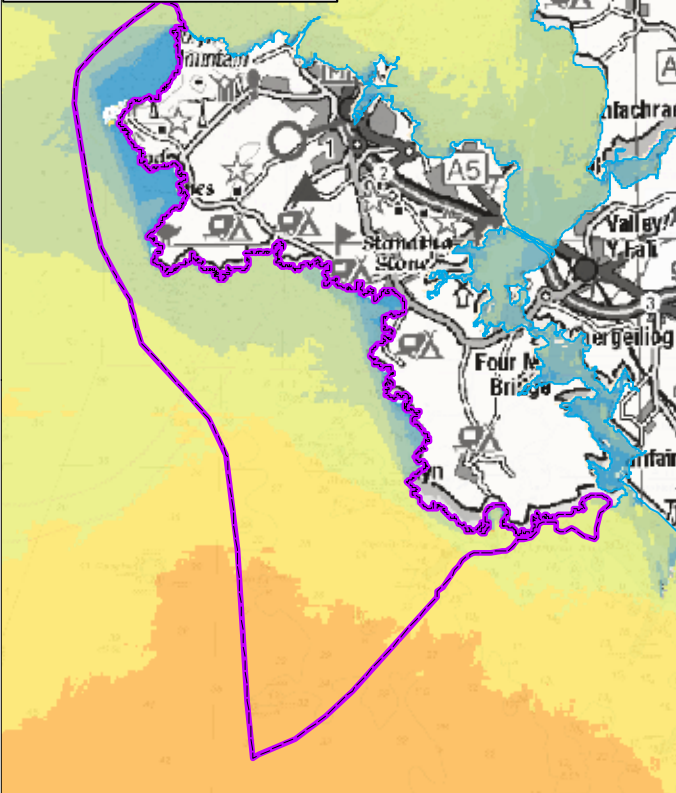
**Land with Views of:
MCA 09: Holy Island West and Penrhos Bay**

Source: LUC, NRW, OceanWise

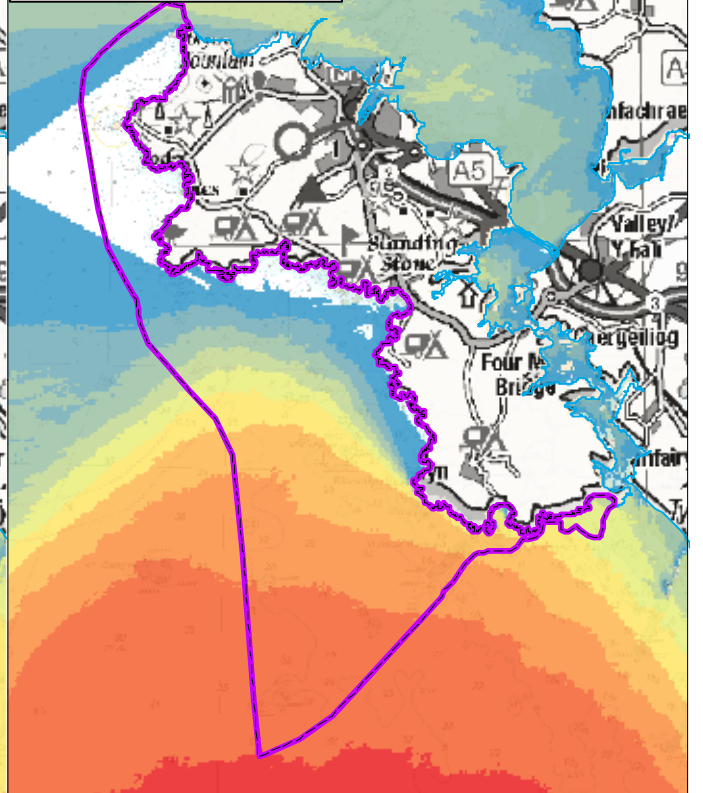


Map Scale @ A4: 1:350,000

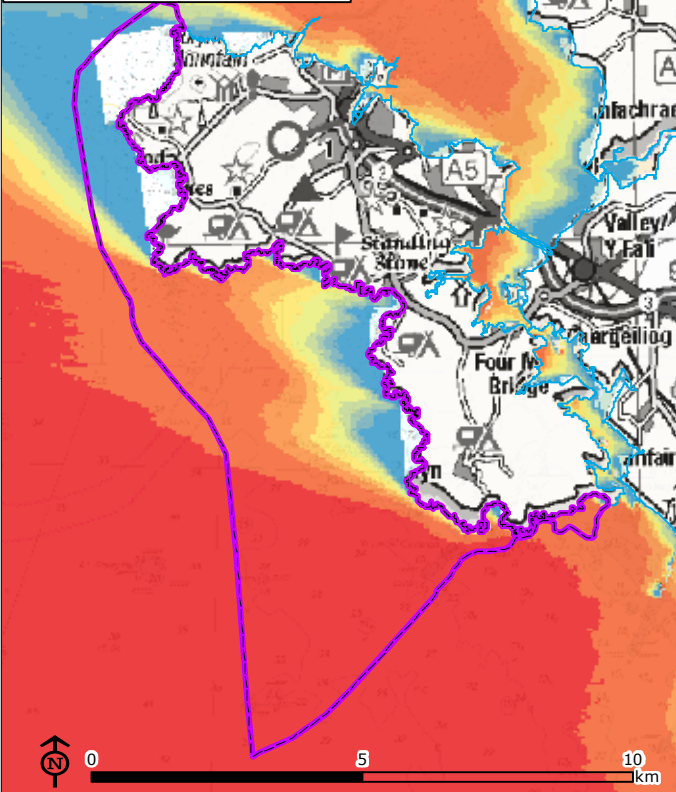
0-1 km from High Water Mark



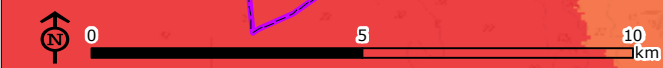
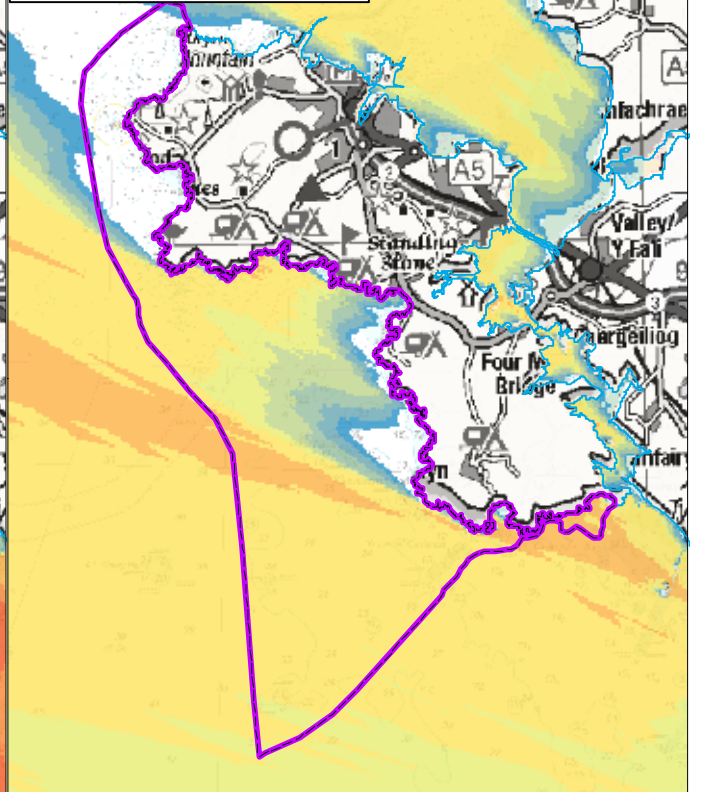
1-5 km from High Water Mark



5-10 km from High Water Mark



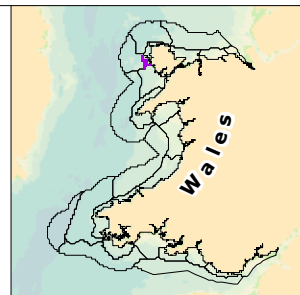
10-20 km from High Water Mark



- 09: Holy Island West and Penrhos 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 09: Holy Island West and Penrhos Bay



Map Scale @ A4: 1:140,000