



Seascape Assessment for the South Marine Plan Areas

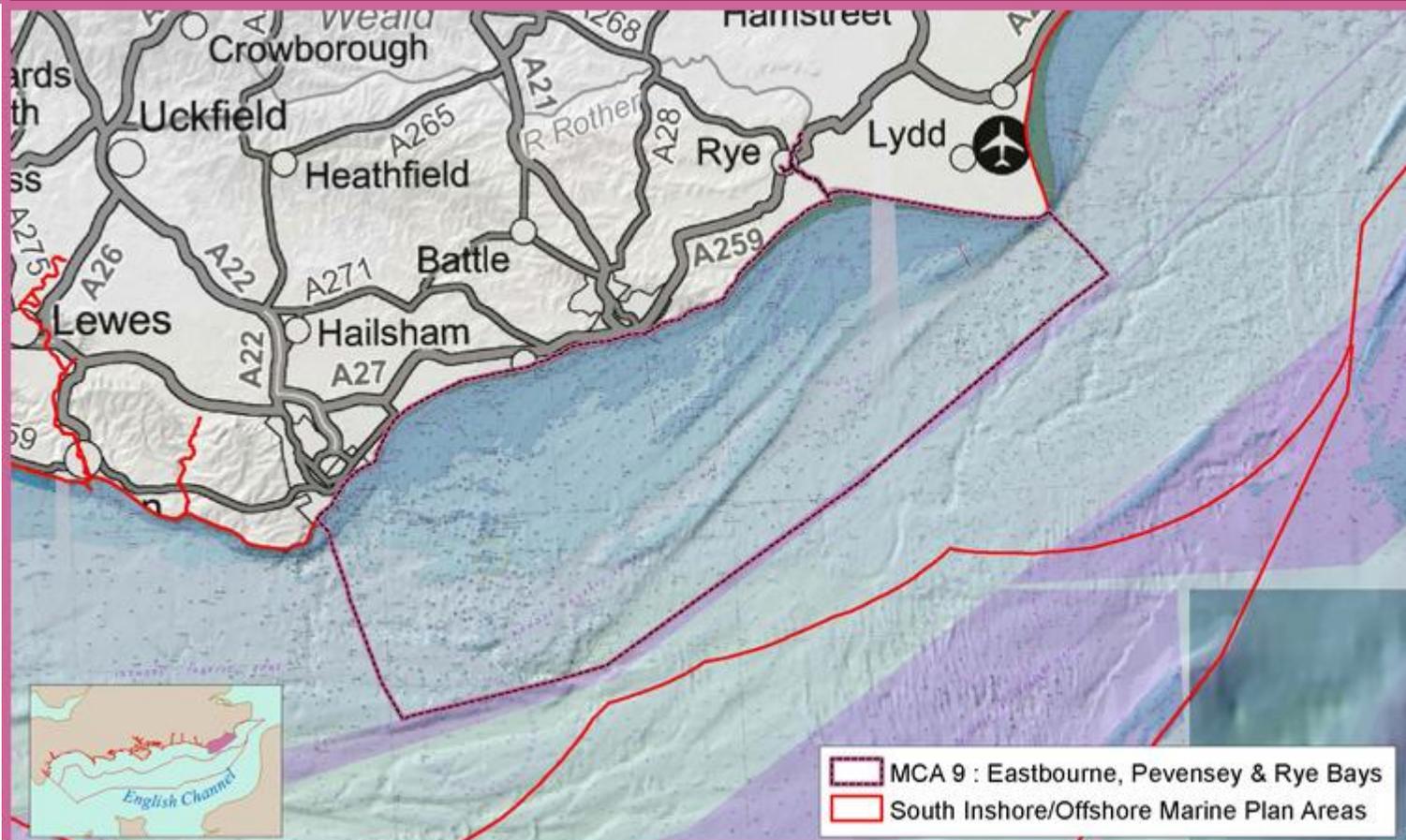
MCA 9: Eastbourne, Pevensey and Rye Bays

Snapshot

Key Characteristics

Description

Visual Resource Mapping



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Location and boundaries

The boundaries of the Marine Character Area (MCA) are clearly defined by the prominent headlands of the chalk cliffs of Beachy Head to the west and Dungeness to the east, and to the south by the inshore/ offshore Traffic Separation Zone, approximately 20 kilometres (11 nautical miles) offshore. It takes in the waters of Pevensey and Rye Bays (marked on the admiralty charts) and the sand banks and shoals that define them, including the nationally important reef of the Royal Sovereign Shoals. The MCA is covered by Shoreline Management Plan area 11: South Foreland to Beachy Head.

Please note that the MCA boundaries represent broad zones of transition (not immediate breaks in character). Natural, visual, cultural and socio-economic relationships between adjacent MCAs play a key role in shaping overall character. Therefore individual MCAs should not be

Overall character

A predominantly low-lying coastline with a series of long sweeping bays of sand and shingle beaches from Dungeness to Fairlight Cove and larger shingle beaches defended with groynes from Bexhill to Eastbourne. The internationally important sandstone cliffs at Fairlight Cove and Hastings are part of the High Weald Area of Outstanding Natural Beauty (AONB). The Royal Sovereign Shoals, a sandstone/ chalk reef, supports the greatest variety of habitats in inshore waters of the south-east coast, and are marked by the distinctive Royal Sovereign Light Tower. Calm waters around the sheltered bays contrast with very strong currents around Beachy Head and Dungeness. The towns of Hastings, Winchelsea and Rye are Cinque Ports, providing vessels and crew to defend the coastline against attack in return for privileges from the King. There are a number of historic shipwrecks in the MCA, highlighting the area's significance for trade and military and its strategic location as part of the wider Dover Strait. The cliffs at Fairlight form a prominent feature and visually divide Rye and Pevensey Bays, particularly in views from the sea, as they contrast with the surrounding lower-lying coast and appear as a headland jutting out into the sea.

Adjacent National Character Areas (NCAs)

The adjacent coastline includes the following NCAs as defined by Natural England¹:

- 124: Pevensey Levels
- 122: High Weald
- 123: Romney Marshes

Adjacent nationally protected landscapes

The coastline between Hastings and Winchelsea beach falls within the High Weald Area of Outstanding Natural Beauty (AONB). Although not within the MCA, the South Downs National Park forms a prominent boundary at Beachy Head (within adjacent MCA 8) and extends inland from Eastbourne.

¹ <http://www.naturalengland.org.uk/publications/nca/default.aspx>

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- A predominantly low-lying coast characterised by a series of long sweeping bays of sand and shingle beaches including the popular wide beach of Camber Sands.
- Sandstone cliffs between Fairlight and Hastings displaying a classic-type section of the Wealden Anticline, together with mammal fossils from the Cretaceous period and dinosaur footprints.
- Important evidence for post-glacial sea level rise, including early Neolithic forest remains on the present beaches of Pett Level and Bulverhythe. Considerable post-Roman coastal change manifested in former ports now stranded inland.
- Extensive areas of wetlands and marshland behind the coast at Walland Marsh, Denge Marsh, Pett Levels and the Pevensey Levels creating a distinctive land/sea interface.
- Water depth increases steadily out into the Channel, with the exception of the Dungeness headland where it deepens rapidly, reaching 30 m depth in a matter of metres.
- Relatively sheltered, shallow calm waters within the bays contrast with stronger currents and overfalls at the headlands at Beachy Head and Dungeness.
- Large sandstone/ chalk reef at Royal Sovereign Shoals, supporting the greatest variety of inshore habitats on the south-east coast, marked by the distinctive Royal Sovereign Light Tower.
- Low wave heights, gentle winds and a small tidal range resulting in relatively calm waters.
- Dungeness forms a watershed where the two tides meet - from the North Sea to the east and from the Channel to the west. This results in particularly strong tides in this location.
- Largest shingle cusped foreland in Great Britain at Dungeness, supporting rich internationally important wildlife habitats, particularly important for birds and invertebrates. It is a popular site for wildlife watching, including porpoise spotting.
- Major role of the coastline in England's history, including the landing point of William of Normandy's army at Pevensey before victory at the Battle of Hastings in 1066.
- Medieval importance of Hastings, Rye and Winchelsea, leading to their status as 'Cinque Ports', granted Charter rights in 1260 for defending the coastline against attack. 19th century Martello Towers are later defensive features strongly associated with the coastline.
- Protected wreck sites illustrating the historic use of the seas for global trade and war from the 16th centuries, including two visible on the beaches of Bulverhythe and Pett Level at very low tide.
- Grey box-like form of the Dungeness Nuclear Power Station forming a prominent man-made feature on the low lying coastline. Notable presence of other industry and infrastructure, including the wind farm at East Guldeford and modern marina development at Eastbourne.
- Lydd Range used by the MOD as a training facility; the restricted zone for live firing extending offshore to the Stevenson Shoal. It forms a distinctive 'empty' inshore seascape.
- Fishing ports at Rye and Hastings and sea angling from the beach at Dungeness. Hastings has strong cultural heritage links to fishing.
- Tourism is key to the local economy, with holiday parks at Camber Sands, and destinations including Hastings, Bexhill, and Eastbourne.
- Fairlight cliffs provide a visual dividing point between the largely undeveloped coastline of Rye Bay to the east, and the more developed Pevensey Bay to Eastbourne to the west.
- Distant views to cargo ships and tankers in the busy offshore shipping lanes. This is a large-scale seascape particularly compared with the constrained form of the Dover Strait to the east.
- Hastings has long been a location for writers and artists including Turner, Jocelyn Brook who painted the seascape, fishing scenes and the sandstone cliffs.

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For ease of reference, the following description text is arranged under three headings, considering the 'Natural', 'Cultural / social' and 'Aesthetic / perceptual' characteristics of the Marine Character Area. It should be noted, however, that all of these aspects combine and interact with each other to varying degrees to shape overall character.

Natural influences

A predominantly low-lying coastline characterises this MCA, with a series of long sweeping bays of sand and shingle beaches. A large expanse of intertidal sands stretches from Broomhill Sands west of Dungeness to Fairlight Cove. Cliffs form a prominent visual feature to Hastings. From Bexhill to the edge of Eastbourne the beaches are characterised by shingle, groynes and rock outcrops.

The distinctive sandstone cliffs from Fairlight Cove to Hastings which form part of the High Weald AONB are of international geological value. The cliffs display a classic type-section of the Wealden and are important for reference and research, as well as for their early Cretaceous mammal fossils and dinosaur footprints. Evidence of past coastal landscapes is present particularly on the beaches at Pett Level and Bulverhythe, where the remains of Neolithic forests are visible at low tide. Sandstone rock outcrops represent the sandy delta of a vast tropical river 138 million years ago when the sea level was much lower than today.

The sandstones, clays and limestone geology exposed in the cliffs continue south-east underneath the English Channel, forming the southern part of the Weald - Artois Anticline. The seabed is covered by sandy ridges, gravel, muddy sand and sand across almost the whole of the MCA. Fine mud dominates in the low-energy areas such as Rye Bay, providing rich habitats for burrowing species.

Dungeness is the largest shingle cusped foreland in Great Britain, and is a rare example of vegetated shingle, and an important habitat e.g. for lichen rich grassland. Camber Sands is one of the few sandy beaches in the south-east and is popular for recreation. Extensive areas of wetlands and marshland e.g. Walland Marsh, Denge Marsh, Pett Levels, Pevensey Levels and Winchelsea Marshes lie behind the coastline, many of which were previously reclaimed from the sea.



Fairlight Cliffs

The underwater biodiversity is rich, especially around the sandstone reef/ chalk reef to the east of Beachy Head (recognised by the suggested rMCZ). Important chalk ledges and peat and clay exposures support a range of habitats including rocky ridges, pools and lagoons, rossworm reefs and mussel beds. The rapidly eroding soft rock cliffs of Fairlight support a different assemblage of invertebrates, including the scarce ground beetle *Tachys micros* and plants. The typical ghyll landscape e.g. at Fairlight Glen is characterised by bryophytes/ ferns.

Underwater rocky features include the Royal Sovereign Shoals, a

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sandstone/ chalk reef approximately 10km offshore from Eastbourne. This reef supports a very wide range of habitat types within a relatively small area, including the common oyster, the short-snouted seahorse and the thomback ray. The southern extent of the reef is marked by the distinctive Royal Sovereign Light Tower. A second reef nearby known as the Horse of Willingdon Reef is a reef of fractured sandstone bedrock and boulders, with patches of cobbles, pebbles and mixed sediment in between. Rocky outcrops occur at Bexhill known as My Lord's Rock, and a sandstone wave-cut platform at Ecclesbourne Glen. Four Fathom Sand Ridge and Shingle Bank are underwater features. Pevensey and Rye Bays are generally well protected from the south-westerly weather by Beachy Head (MCA 8). The sheltered character of the bays provides calm waters with slow currents, however there are very strong tidal currents from Beachy Head, and more complex currents around Dungeness. Dungeness is a key dividing point where the two tides – from the Channel to the west and the North Sea to the east – meet. This results in particularly high tides around Dungeness. Erosion from the south-westerly waves however, causes on-going erosion to the soft cliffs around Fairlight, causing them to recede at a rate of up to a metre per year.

An uneven sea bed combined with the deep water and fast tidal streams make sailing around Dungeness challenging, and the tidal streams of Dungeness are known as the 'gravy train' as they allow quick passage traversing the coastline. Prevailing south-westerly waves result in transportation of sediment west to east along the coast, although there is an important reversal at Dungeness where eddies around the foreland cause accretion on the eastern side of Dungeness Point. Supply of offshore sediment from further along the coast is reducing due to coastal defences to reduce coastal erosion e.g. at Hastings.

Cultural / social influences

The coast has a rich and nationally important maritime history, not least witnessing the landing of William of Normandy's army at Pevensey before its victory at the Battle of Hastings in 1066.

Defensive structures along the coast illustrate its role in resisting attack during threats of invasion from the sea over the centuries. Hastings Castle was originally built in 1066 by William the Conqueror, standing close to the site of the Battle of Hastings. The castle was dismantled and rebuilt in around the 13th century, subsequently battered by brutal winds with parts being lost to the sea due to cliff erosion. Today some ruins still stand and are protected by English Heritage.

Parts of the nearby Pevensey Castle can be dated to the 4th century as one of the last and strongest of the Roman 'Saxon Shore' forts, while Camber Castle was built by King Henry VIII to guard the port of Rye. The medieval importance of the towns of Hastings, Rye and Winchelsea led to their status as 'Cinque Ports', granted Charter rights in 1260 for defending the coastline against attack. Hastings was the original Cinque Port, with Rye and Winchelsea supporting 'limbs' to Hastings, but later to become Cinque Ports and Head Ports in their own right. They supplied the King with ships and crew, defending the coastline for a certain number of days each year, and in return received privileges such as exemption from taxes, free trading rights and the legal right to hold their own courts.

Erosion from the sea resulted in the gradual disappearance of the original port of Hastings, which became a small fishing town, though elements of its past remain including medieval houses, 16th century defence wall and traces of the Elizabethan harbour to the west of the town, and the remains of the 16th century church at Bulverhythe –

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previously Hastings' annexe port. Medieval maps show that Rye (now inland) was originally located on a huge embayment of the English Channel called the Rye Camber, which provided a safe anchorage and harbour. Probably as early as Roman times, Rye was important as a place of shipment and storage of iron from the Wealden Iron Industry. Since 1803 there have been lifeboats stationed at Rye, a role that is retained today.

In addition to the role of the historic ports, strategic routes along the rivers of the Eastern High Weald were important for both trade and servicing the war efforts, transporting goods via barge from the High Weald to ports. The Weald has historically been a source of timber for shipbuilding trade routes to Romney Marsh along the gill streams of the High Weald.

The later threat of invasion by Napoleon in the 19th century led to the construction of distinctive Martello Towers, five of which remain (there were originally 103 stretching from Seaford to Aldeburgh). Since there never was an invasion, the Towers had little military significance until 1940 when some were used as observation posts during World War II.

The Royal Military Canal near Winchelsea was also built to defend the coast during the Napoleonic period – especially the undefended Romney Marsh. There is also an old Mulberry Harbour off the coast near Rye built during World War II.

Offshore and along the coastal edge are a number of shipwrecks, illustrating the significance of this area of seascape for trade, war and transport for thousands of years. Three wrecks in the MCA are protected by English Heritage: the *Amsterdam*, the *Anne* and *Normans Bay*. The *Amsterdam* wreck at Bulverhythe beach is the most well

known, because it is partly visible sticking out of the sand at low tide. The ship sank in 1749 after becoming beached during a gale at high tide. It remains partially intact and is a historical record of one of the early global trade ships - its planned destination being Java via the Cape. *The Anne* was a 17th century warship damaged in the Battle of Beachy head in 1690. Parts of the wreck can still be seen in the sand at extreme low spring tide at Pett Level.

Today there is a notable human and industrial influence including a long history of gravel extraction at Dungeness which has resulted in a number of pits which are now valuable wildlife habitats. The wind farm at East Guldeford Level and the large number of pylons are visible from sea set against the flat, low lying coast. Lydd Range at Romney Marsh is used by the MOD as a training facility. The restricted zone for live firing extends out to the Stevenson Shoal; the patrolled area forms a distinctive 'empty' inshore seascape, with fishing and recreational boats absent. Orange flares are often visible in the skies above the area at night.

The area has distinctive fisheries with fishing ports at Eastbourne, Rye and Hastings. At Rye the main activity is scallop dredging which takes place off Dungeness Point, and lobster, crab, whelks and shellfish fishing takes place in the bay and marina east of Eastbourne. There has been a fishing fleet in Hastings for thousands of years, and it has distinctive and colourful beach launched fishery. Recreational fishing and sea angling is popular from the shingle beach at Dungeness. Coastal sea defences are also a feature of the coastline in the form of huge boulders and an on-going replenishment of shingle beaches. The sea defences provide protection from the permanent flooding of a 50 square km area including Pevensey Bay, Normans Bay, Langley, Westham and parts of Pevensey itself. Within this area there are more



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than 10,000 properties, important recreational and commercial complexes, transport links (main road and railway), wetlands of international importance and two important nature reserves (Hooe Flats and Pevensey Levels).



Eastbourne beach with groyne and Martello Tower behind

Tourism is also important— the holiday resort and vast sandy beach of Camber Sands is a major tourist destination with activities including sand surfing, wind surfing and kite surfing. Hastings, Bexhill, Rye, Eastbourne and Dungeness are also popular visitor destinations. Rye, Winchelsea and Hastings are promoted for their historic interest and their status as ‘Cinque Ports’. Eastbourne has been a prime seaside resort since the Victorian period, in addition to the more recent development of Sovereign Harbour in the 1990s, which includes a marina.

Aesthetic and perceptual qualities

Rye and Pevensey Bays are sheltered from the prevailing south-westerly wind and waves, though the headlands at Beachy Head (MCA

8) and Dungeness spit are more exposed and the surrounding sea can be rougher. Between Dungeness and Winchelsea the coastline appears low and flat and disappears in views from the sea, especially in foggy weather conditions. Low wave heights, gentle winds and small tidal range provide relatively quiet waters compared to the busy shipping channels offshore, with the shallower waters popular for recreational sailing.

The cliffs around Hastings from Fairlight to Pett Level are where the High Weald AONB meets the sea. The sandstone cliffs are visually very distinctive, and provide an important undeveloped gap in the predominantly developed stretch of coastline. The area is tranquil, with views of the hills of the High Weald AONB behind providing strong contrast. The cliffs are particularly prominent in views from the sea, appearing as a headland which visually divides and encloses the two bays – the more developed coastline to the west- and less developed to the east. Overflying air traffic using nearby Lydd Airport can intermittently erode levels of tranquillity in this part of the MCA. Hastings Country Park provides access and key views to sea and of the dramatic cliffs and coastline.

The power station and lighthouses at Dungeness are key landmarks. The power station dominates views from the sea, towering above the surrounding flat, low landscape. Its bulk is visible from far out to sea as the low lying coast disappears from view, appearing as a large grey block or huge container ship, sometimes appearing separated from the land. The facility also causes currents of warmer water which attract large groups of fish and recreational fishing. The wind farm to the west of Dungeness and the line of pylons add to the built up and slightly industrial character, forming a strong contrast of vertical lines on a flat horizon.



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Low lying coastline development east of Eastbourne

Dungeness is reputed to be the largest area of shingle in Europe, and the UK's only official desert – it is also sometimes referred to as the sixth continent for its 'otherworldly' remote, wild character. The dynamic nature gives the coastline a feeling of constant evolution, exposure and suppression to nature's elements. The cliffs at Fairlight and Hastings are also changing as a result of erosion and landslip.

On the flat coastal edge vertical features form prominent landmarks in views from the sea including pylon lines and turbines, the lighthouse and power stations at Dungeness, plus occasional glimpses to church towers and spires on Romney Marsh. A large scale seascape is characterised by views to distant cargo ships and the large structures on a wide flat coastline. Lydd firing range forms a distinctive 'empty' inshore seascape, with fishing and recreational boats absent. Artistic and literary associations include Turner, HG Wells and Jocelyn Brook. Hastings has strong links and traditions with fishing and the sea, including folk music and the wreck museum. It has long been a popular location for painters, painting fishing villages and the cliff geology. *The*

Mary Stanford of Rye folk song commemorates the sinking of the Mary Stanford Lifeboat in 1928.



Dungeness Nuclear Power Station and pylons



MCA 9: Eastbourne, Pevensey and Rye Bays

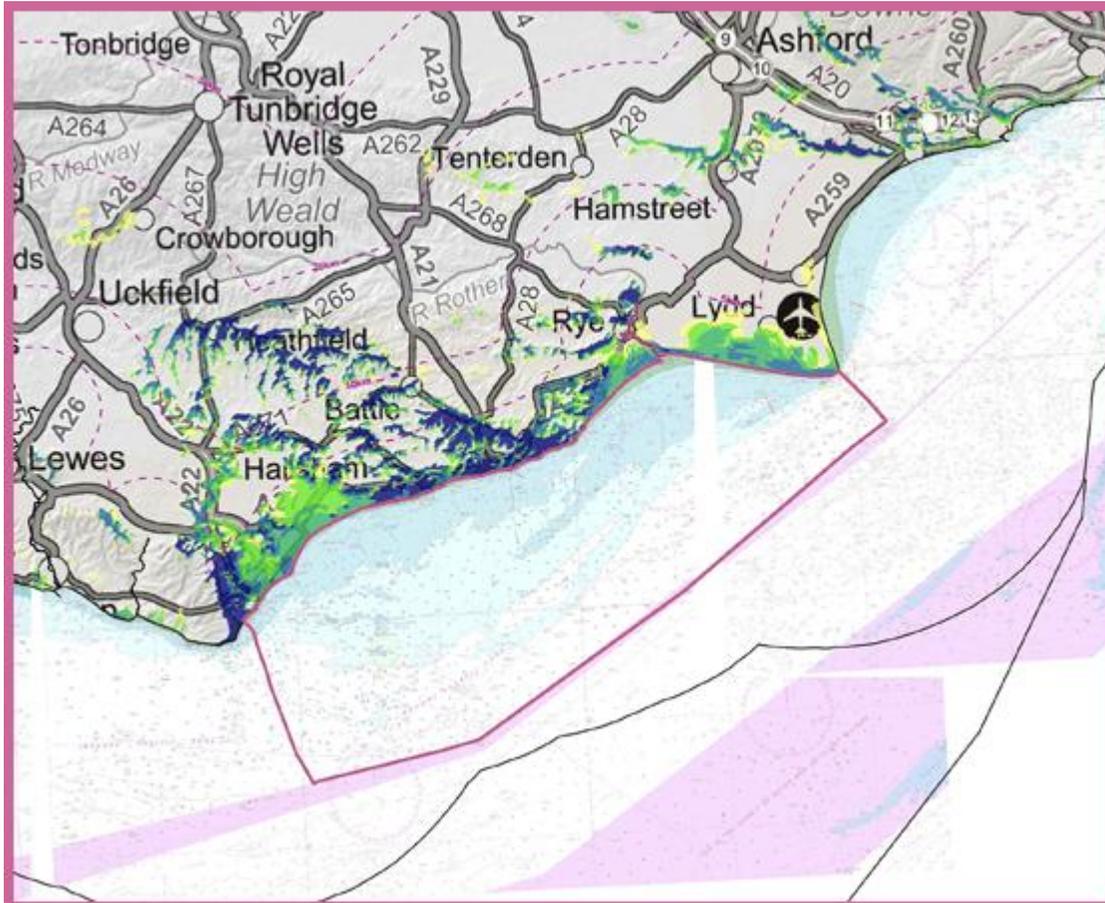
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Land with views of MCA 9



South Inshore/South Offshore marine plan areas

MCA 9: Eastbourne, Pevensey and Rye Bays

Land with sea views (percentile)



- Land with views of the MCA extend along the coast from Kemp Town, Brighton to the eastern edges of Dover including areas within the Kent Downs AONB and South Foreland Heritage Coast.
- Extensive views of the MCA gained from narrow strips of land between Hythe and Aldington, Heathfield and Hastings, Cowbeech and Boreham Street, and along the coastline between Bexhill and Fairlight Cove.
- There are also extensive views of the sea from Stone in Oxne, Eastbourne (including areas of the South Downs National Park) and locations around Rye.
- Some views of the sea can be obtained from Farthing and around Folkestone including sections of the North Downs Way within the Dover-Folkestone Heritage Coast.
- Some views are afforded from Mount Caburn, Firle Beacon (including sections of the South Downs Way), Polegate, East Hoathly, Burwash Common, Langney and large areas at Dungeness.
- Views of the MCA can be obtained from locations relatively far inland.

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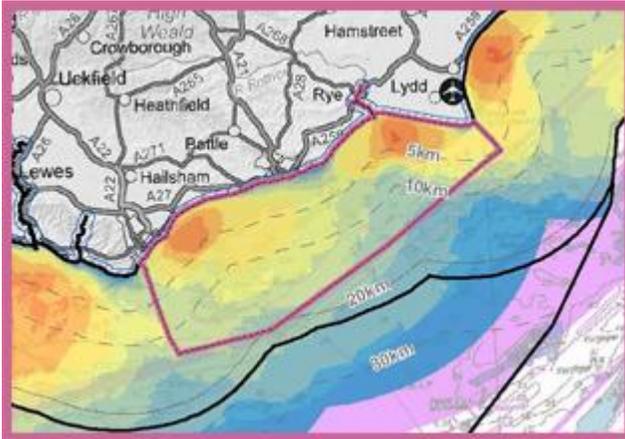
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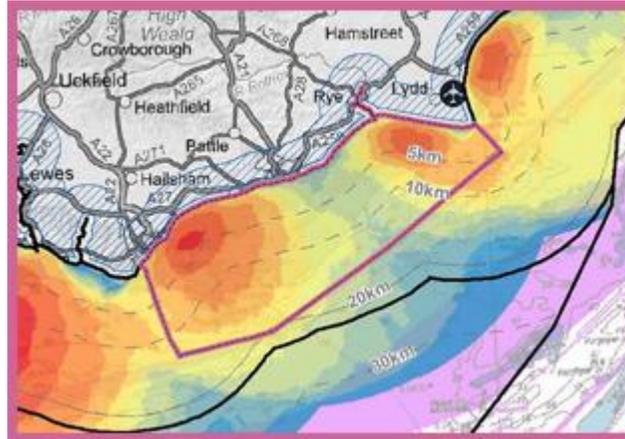
Visual Resource Mapping

Visibility of sea from land

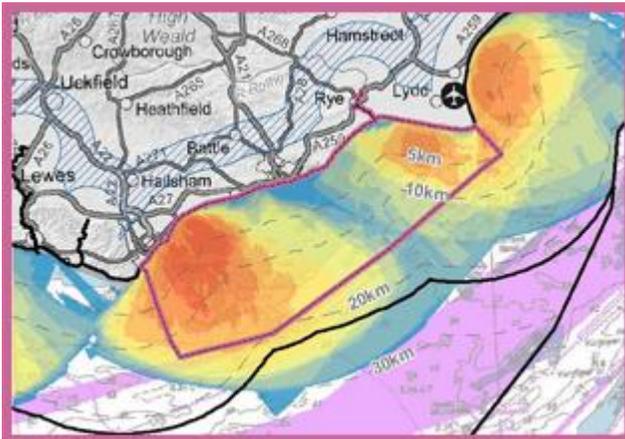
Relative visibility of the sea surface from viewers on land



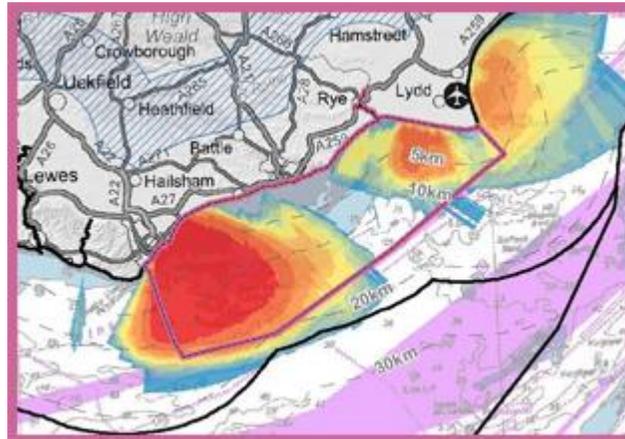
0-1km from the High Water Mark



1-5km from the High Water Mark



5-10km from the High Water Mark



10-20km from the High Water Mark

South Inshore/South Offshore marine plan areas

MCA 9: Eastbourne, Pevensey and Rye Bays

Location of viewers

1 to 10	11 to 20	21 to 30	31 to 40	41 to 50
51 to 60	61 to 70	71 to 80	81 to 90	91 to 100

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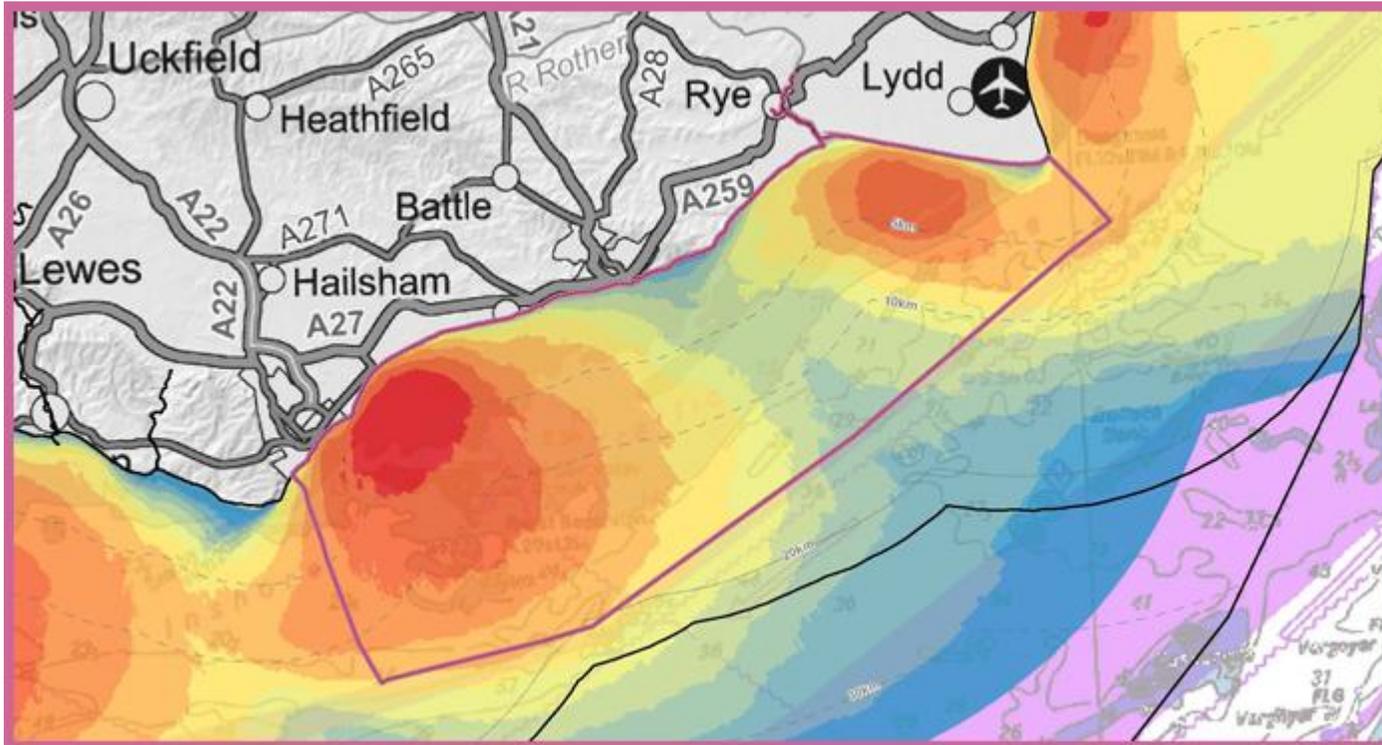
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Visibility of sea from land

Relative visibility of the sea surface from viewers on land



- The most visible part of the MCA is located just offshore from Landney Point between Eastbourne Bay, Pevensey Bay and the Long Shoal.
- Visibility increases sharply from the coastline towards this area, and also from Camber Sands towards West Road, Rye Fair and the Stephenson Shoal.
- Visibility remains relatively high in the west of the MCA towards the southern boundary. The eastern section of the MCA is also visible from many locations on land.
- Central areas of the MCA are less visible from land.

Up to 20km from the High Water Mark

South Inshore/South Offshore marine plan areas

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Visibility of sea from land (percentile)

