



# Seascape Assessment for the South Marine Plan Areas

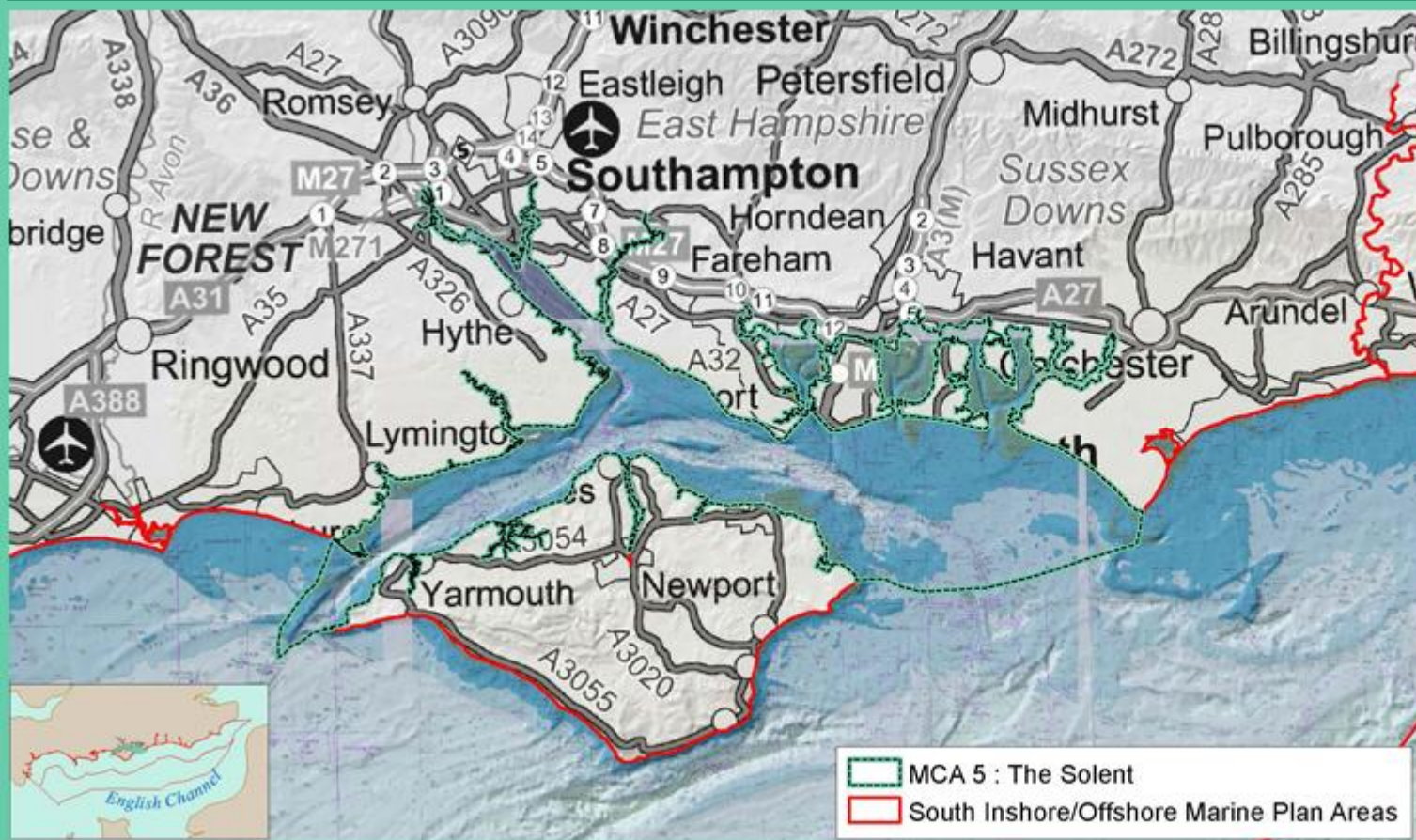
## MCA 5: The Solent

Snapshot

Key Characteristics

Description

Visual Resource Mapping



# MCA 5: The Solent

Snapshot

Key Characteristics

Description

Visual Resource Mapping

## Location and boundaries

This Marine Character Area (MCA) covers the distinctive narrow stretch of sea of the Solent and its adjoining channels (the largest being Southampton Water) and Portsmouth, Pangstone and Chichester Harbours. It stretches from The Needles and Hurst Point in the west, to Foreland and Selsey Bill to the east. Seaward boundaries reflect the navigational conditions and commercial uses of the Solent, and extend to a maximum of approximately 12 kilometres (6.5 nautical miles) offshore. The western boundary takes account of the change in sea and tidal conditions upon entry into the Needles Channel and Hurst Narrows; and in the east the southern extent of the MCA takes in the main deep-water Nab Channel before making landfall at Selsey Bill.

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 considered in isolation.

## Overall character

The Solent is one of the busiest stretches of water in the UK, both commercially and for inshore recreation. It includes the major ports of Southampton and Portsmouth, which are nationally important hubs for marine transportation and trade. The Solent's sheltered waters also attract some of the largest numbers of marine recreational users in North-East Europe, supported by a large number of yacht clubs and marinas and world-class sailing events. Calm, warm seas nurture rich fishing grounds, including nationally rare native oyster beds at Chichester Harbour. The area is steeped in maritime history reflecting its nationally important roles in defence and trade, including the historic base of the Royal Navy at Portsmouth. The busy waters and port developments contrast with sections of highly tranquil coastline (particularly within the New Forest National Park, Isle of Wight and Chichester Harbour AONBs) and internationally important wildlife havens.

## Adjacent National Character Areas (NCAs)

The adjacent coastline includes the following NCAs as defined by Natural England<sup>1</sup>:

131: New Forest, 128: South Hampshire Lowlands, 126: South Coast Plain and 127: Isle of Wight

## Adjacent nationally protected landscapes

The coastline from Hurst Spit to Ashlett Creek falls within the New Forest National Park, and the southern side of The Solent includes sections of coastline within the Isle of Wight Area of Outstanding Natural Beauty (AONB). Chichester Harbour is designated as an AONB, falling wholly within the MCA. The north-west coast of the Isle of Wight includes two Heritage Coasts – Hamstead (fully within the MCA) and Tennyson, which is partially within MCA 6.

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

# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

- Sheltered, shallow waters of The Solent contrasting with the nearby open waters of Poole Bay and the English Channel.
- Iconic sharp chalk stacks of The Needles forming the western gateway to the Solent. Remainder surrounded by low sandstone/clay Tertiary cliffs, punctuated by tidal inlets, estuaries and natural harbours.
- Unique tidal system with four tides per day and 'double high waters', resulting in a long stand of tide at or very close to the high water mark.
- Submerged sand/shingle banks and shoals, added to strong tidal streams, creating areas of treacherous water, particularly the Needles Channel and around The Owers off Selsey Bill.
- Rich variety of coastal and maritime habitats, including saltmarsh, saline lagoons, coastal grazing marsh, shingle and sand dunes – a large proportion internationally designated.
- Site of the UK's largest managed realignment scheme at Medmerry, on the Manhood Peninsula.
- Variety of marine life including nursery areas for fish; as well as extensive colonies of internationally important waders, wildfowl and seabirds.
- Abundant evidence for the Solent's strategic importance for maritime trade, seafaring and defence, including Portsmouth's Historic Dockyard, Henry VIII's Hurst Castle, the Palmerston Forts and many historic shipwrecks.
- Nationally important palaeolandscape survivals with human occupation deposits along and off the north coast of the Isle of Wight.
- Second largest UK container port at Southampton, also the main terminal for cruise liners. Portsmouth Naval Base is home to two-thirds of the Navy's surface vessels.
- Commercial shipping linking to the English Channel, with tankers, large container ships, Navy vessels and cruiseliners navigating through the Nab Channel. Frequent ferries link the Isle of Wight to mainland terminals.
- Important social and economic links with Poole Harbour (MCA 4) to the west – used as a sheltering point for ships en-route to the Solent in stormy weather conditions.
- Premier destination for leisure boating in the UK, with numerous marinas and other yachting facilities associated with the Solent. Internationally important events such as Cowes Week emphasise the importance of the area for sailing.
- Intense commercial and recreational fishing in the shallow coastal waters, particularly for shellfish (including the long-standing native oyster fishery in Chichester Harbour).
- Popular coastline for tourism and recreation, including the beaches of West and East Wittering, the New Forest National Park and walks along the Solent Way and Isle of Wight Coast Path.
- Strong intervisibility between the opposing coasts, with marked contrasts between the wooded shorelines of the Isle of Wight and New Forest and the intensive development dominating the north-eastern shoreline.
- Visual relationships extending inland to the South Downs National Park, downland summits of the Isle of Wight and west towards Swanage and Old Harry Rocks.
- Pockets of relative tranquillity associated with undeveloped sections of coastline and quiet tidal inlets.
- Area providing inspiration and escapism for many, including Lord Tennyson and Queen Victoria.



# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

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 character.

### Natural influences

This MCA includes the northern shores of the Isle of Wight, separated from the south coast by the Solent; a sheltered, shallow stretch of water backed by intricate tidal inlets and the major deep-water channel of Southampton Water (depth is maintained by dredging). The MCA also includes the natural harbours of Poole, Chichester, Langstone and Portsmouth. These punctuate a low-lying coastline, backed by soft clay and sandstone cliffs of Tertiary age, supplemented by shingle deposits, saline lagoons and sandy beaches. The western edge of the MCA is marked by the iconic white chalk stacks of The Needles, which form the terrestrial extent of a series of parallel chalk and soft Tertiary ridges characterising the northern coastline of the Isle, including fossil-rich sections. The chalk ridge continues along the seafloor to outcrop at the opposite side of Poole Bay – at Old Harry Rocks (MCA 4), unifying the two MCAs both physically and visually.

The character of the area is strongly influenced by the unique tidal system of the Solent, the only location in Europe to experience four tides per day. 'Double high waters' between Swanage (MCA 4) and Southampton result in a long stand of tide at or very close to the high water mark. Tidal streams are frequently strong and complex, with submerged shingle banks, rocks and shoals providing further navigational challenges. The Needles Channel (well buoyed and clearly lit at night, including by the famous 33 metre lighthouse on Goose

Rock) is particularly treacherous, owing to the presence of The Shingles bank combined with the strong tides running through Hurst Narrows. During strong south-westerlies over an ebbing tide, attempts to enter the Solent here are strongly discouraged, with entrance from the east being a safer option<sup>2</sup>. As testament to the notorious sea conditions in this area, the wrecked remains of a number of ships are found on the sea bed, including *Assurance* (1753) and *HMS Pomone* (1811) – both protected by English Heritage for their historic importance.



*Minton Pole navigation beacon*

The entrance to the Solent from the east is known locally as '*Through the Forts*' – reference to passing between two of the four Spithead forts (see under 'Cultural / social') – No Man's Land Fort and Horse Sand Fort. The entry point into this deep-water approach to Southampton and Portsmouth is marked by the 27-metre high Nab Tower (within MCA 6). Rocks and shoals off Selsey Bill, known as the Owers, and various

<sup>2</sup> The Shell Channel Pilot (2010, Sixth Edition) states that '*to enter the Needles Channel...on a spring ebb with a southwest gale blowing is little short of madness...*'

# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

sandbanks and shoals fringing the main approach provide the main obstacles for safe navigation. The Brambles sandbar in the central Solent is exposed at low spring tides, famously the location of an annual cricket match<sup>3</sup> which lasts as long as it takes until the tide comes in. It is also where the Queen Elizabeth 2 liner ran aground on her last visit to Southampton Docks in 2008, prior to her retirement.



*Harbour seals in the Emsworth Channel, Chichester Harbour*

The MCA marks the transition between warm 'Lusitanian' waters to the west and colder 'Boreal' waters in the eastern English Channel, giving rise to rich and varied maritime habitats and wildlife. This is reflected in the large coverage of national and international nature conservation designations along the coast and marine areas, including the Solent Maritime SAC, Solent & Southampton Water SPA/Ramsar, Portsmouth Harbour SPA, Chichester and Langstone Harbour SPA and part of South Wight Maritime SAC. Of particular note is the major estuarine system of the Solent itself, with its extensive estuarine mud/sand flats, sand and shingle spits, salt meadows and coastal lagoons. The wider

area is of international importance for waterfowl, seabirds and waders, regularly supporting over 50,000 overwintering birds. The sheltered waters also provide rich breeding and nursery grounds for fish and hunting grounds for harbour seals, bottlenose dolphins and long-finned pilot whales.

The MCA is the site of the UK's largest open coast managed realignment scheme on the Manhood Peninsular at Medmerry. This involves the creation of large areas of intertidal habitat seaward of new sea defences built to protect one of the areas most at risk of flooding in the UK. It will also open up new footpaths, cycleways and bridleways for public enjoyment<sup>4</sup>.

### Cultural / social influences

The natural assets and strategic location of the MCA has resulted in an area with a rich maritime history of national significance. The earliest Palaeolithic occupants of the area benefited from rich food sources provided by the Solent, with subsequent sea level rise after the last glaciation creating the area's natural harbours and estuaries. These unrivalled harbours, with a fertile hinterland and good access to Winchester (the Anglo Saxon capital of England) and London, have nurtured and supported the development of trade and defence over many centuries.

The significant loss of mudflats from the coast in the western Solent (between Hurst Castle and Pitts Deep) over the past 200 years has exposed a buried prehistoric land surface and peat deposits which can be compared to the upper peats off the north coast of the Isle of Wight. Exposed Holocene intertidal deposits have been identified along the north-east coast of the Isle of Wight such as at Wootton Quarr where modern erosion has revealed a plethora of archaeological material dating back to the Mesolithic, including the fully-submerged Mesolithic

<sup>3</sup> Between Royal Southern Yacht Club and Island Sailing Club

<sup>4</sup> <http://www.environment-agency.gov.uk/homeandleisure/floods/109062.aspx>

# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

peat platform and cliff face off Bouldnor Cliff, on the north-west coast of the Isle of Wight. To date, the Mesolithic site at Bouldnor Cliff is the only stratified prehistoric occupation site identified in UK waters.

Southampton's growth from the 10th century as a major centre for the wool and metal trade and the import of Mediterranean luxury goods spurred the area's development and the function of the Solent as a key trade route. Today the Solent remains one of the busiest waterways in the UK, with Southampton the leading deep-sea cargo port on the English Channel. The large number of local and international ferry services is unparalleled in the UK, with cargo transport supporting various local industries, such as the shipyards, numerous boatyards and petrochemical complexes on Southampton Water, including Fawley refinery – the largest in the UK.

Portsmouth developed as a focus for defence during the medieval period, with the country's first dry docks constructed in 1495. Its deep water meant it was the favoured centre for the construction and repair of royal ships, with its national strategic importance accelerating in the 18th century through the rise of the Portsmouth Naval Base. A wealth of defensive structures are still visible, including the Iron Age promontory fort at Hengistbury Head, 3rd century Saxon fort of Porchester Castle, Henry VIII's Hurst, Calshot and West Cowes Castles and a series of Napoleonic and First World War structures, including the four imposing Spithead Forts marking the eastern entrance to the Solent. Maritime casualties from the Solent's turbulent past are also famously present – including the Protected Wreck sites of Henry VIII's flagship *Mary Rose* the remains now on display at the newly opened museum in Portsmouth), *HMS Invincible* (1758), the *A1* Navy submarine (1911) and the wooden Navy sailing vessel *Hazardous* (1706).



*Hurst Castle and lighthouse*

The 600-year old tradition of the Fleet Review celebrates the might of the country's defensive shipping fleet. Queen Elizabeth II undertook the last review in 2005, which included 167 naval and merchant ships sailing along the Solent<sup>5</sup>.



*Saint Helen's Fort*

<sup>5</sup> These are part of a larger number of forts around the south coast of Britain (collectively known as the Palmerston Forts), built in the late 19<sup>th</sup> century following concern about the strength of the French Navy. Fort Albert (opposite Hurst Castle on the Isle of Wight) is another example.

# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

The Isle of Wight also has long associations with national defence and the maritime industry. The Needles battery, the location of the world's first radio station set up by Marconi in 1897, was also used as for the testing and development of the Black Arrow and Black Knight space rockets, subsequently launched from Woomera, Australia. It is also home to the famous boat-building firm of J. Samuel White (established 1802) and Saunders-Roe –manufacturer of the world's first hovercraft. Both companies are still based in East Cowes.

The area's rich waters have also supported fishing activity since the early days of human occupation. Owing to the sheltered nature of the coastal waters, fishing levels are intense, especially for shellfish species such as crab and lobster; a large proportion of which is exported to the continent from the main fishing ports of Portsmouth, Bembridge and nearby Poole. The long-established oyster fishery in Chichester Harbour has one of the few remaining stocks of native oyster in the UK that supports a commercial fishery. Cuttlefish, squid, whelks, cockles, clams and deep-sea fish species such as Dover sole, cod, plaice and whiting are also landed from the surrounding waters. As well as commercial fishing, recreational sea angling is also a major economic activity in the Solent, supported by around 50 clubs in the area and over 60 charter boats<sup>7</sup>.

Perhaps the most significant human activity to have developed in the last century is recreational sailing and yachting; as well as marine and coastal tourism in general. The waters of the wider area are likely to be the single most heavily used water area for inshore recreation in Britain, and possibly the north-east Atlantic. Activities include yachting, motorboating, dinghy sailing, jet skiing, water skiing and rowing, benefiting from the area's sheltered harbours and inlets. Leisure boating and yachting activity is supported by a large number of

shoreline marinas and yachting clubs, particularly concentrated around Chichester Harbour, Southampton Water, Poole Harbour and the Isle of Wight. The area hosts a number of famous sailing events, most notably the annual Cowes Week and others hosted by the 200 year old Royal Yacht Squadron, based in Cowes (Isle of Wight).



*Yachting in the eastern Solent*

The surrounding coastline attracts large numbers of recreational users and tourists drawn to destinations including the Isle of Wight via ferries from Portsmouth, Southampton and Keyhaven. Chichester Harbour, the New Forest National Park and the golden beaches of East and West Wittering are also popular destinations, the latter receiving some 1.5 million visitors annually. The coastline is dotted with supporting facilities, including car parks, caravan and camping sites, and much is served by rights of way, including the Solent Way and the Isle of Wight Coast Path.

<sup>6</sup> This last Review was timed to commemorate the *Battle of the Atlantic* anniversary in 1999.

<sup>7</sup> [http://www.solentforum.org/publications/strategic\\_guidance/SG%20rectour%20final.pdf](http://www.solentforum.org/publications/strategic_guidance/SG%20rectour%20final.pdf)

# MCA 5: The Solent

## Snapshot

## Key Characteristics

## Description

## Visual Resource Mapping

### Aesthetic and perceptual qualities



*Container ship in the Solent outside Southampton*

This is an area defined by human activity – past and present – with the sight, sounds, colour and movement of water-based vessels (from dinghies and yachts to ferries, cruise liners and Navy war ships) having an overriding influence on character. Urban and industrial development relating to Southampton, Portsmouth and Gosport dominates the central Solent, with the Fawley Refinery chimneys forming prominent features in views from along the coast, the Solent and the north coast of the Isle of Wight. Here the main island settlements of Cowes, Ryde and Yarmouth are separated by a sparsely settled coastline of low cliffs frequently clothed in woodland and estate plantings extending to the water's edge. In the east, gaps through the woodland allow views from the Solent to the elevated downland in the centre of the island, including prominent telecommunications masts at Rowridge and Cheverton Down (these are also visible in views from the eastern edges of MCA 4).

The New Forest's low-lying, largely undeveloped coastline and the western half of the Isle of Wight's coast provide a unifying sense of tranquillity in this part of the Solent. This is matched in the east at Chichester Harbour, particularly in the winter months when the many water-based recreational users are largely replaced by expansive flocks of internationally important overwintering birds, bringing an overriding sense of naturalness to the seascape. The rising land of the South Downs forms an imposing backdrop to the eastern Solent – with strong intervisibility between the National Park and the coast being key to character, as well as the special qualities of the Park.

These scenic coastal landscapes and their close relationship with the maritime environment have long provided inspiration and a sense of escapism to many who live in or visit the area. For example, Tennyson Down on the Isle of Wight is named after the poet Lord Tennyson who used to walk on the down almost every day, saying that the air was worth *'sixpence a pint'*. A granite memorial cross stands on the summit at 147 metres, forming a strongly recognisable landmark in views from across the western Solent. Queen Victoria is also famously associated with the area, with the towers and grounds of her seaside residence, Osborne House, glimpsed from the adjacent waters of the Solent.





# MCA 5: The Solent

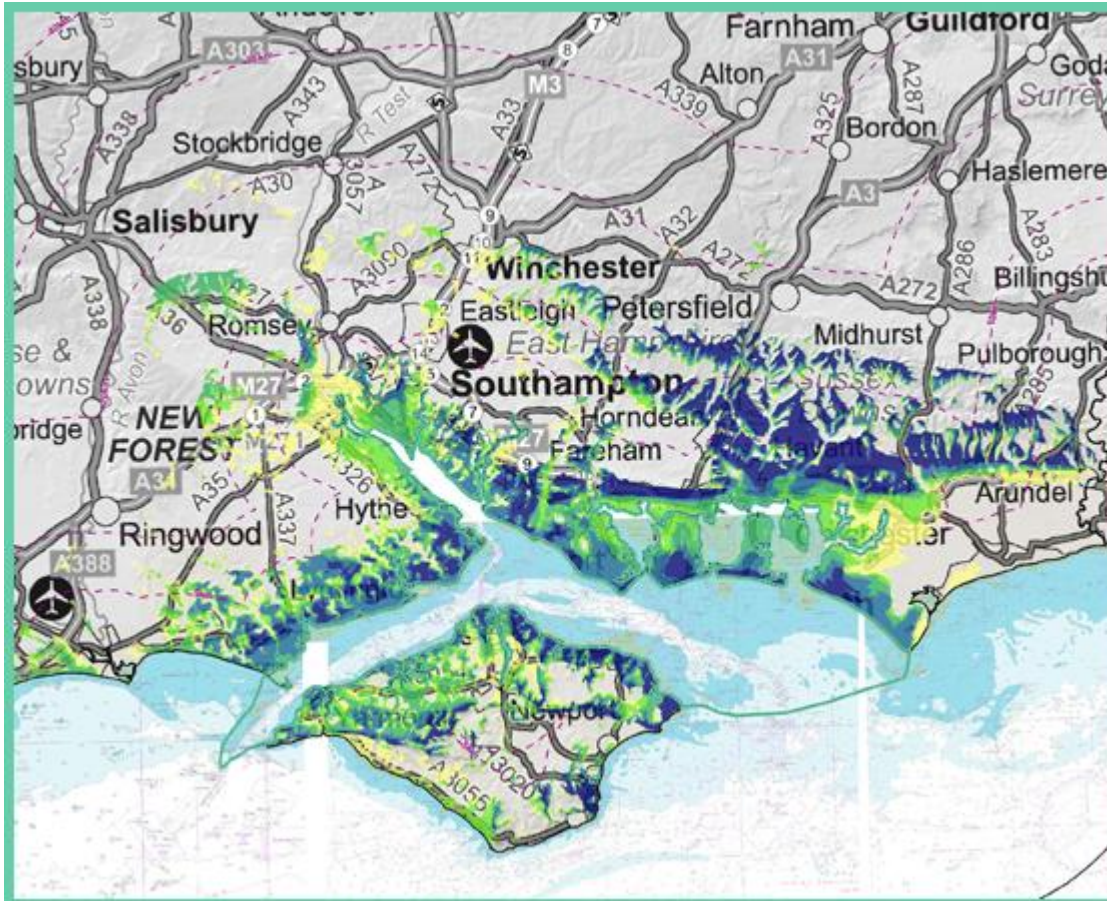
Snapshot

Key Characteristics

Description

Visual Resource Mapping

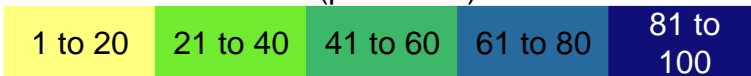
## Land with views of MCA 5



South Inshore/South Offshore marine plan areas

MCA5: The Solent

Land with sea views (percentile)



- Extensive views of the MCA can be gained from the Isle of Wight and large areas on the mainland between Milford on Sea and Southampton Water, and from Rownhams to Arundel.
- Elevated land within the South Downs National Park (between 10-20km inland) also has good views of the sea.
- Some views are afforded from around Swanage, Bournemouth and Christchurch, and between 5-10km inland at Harrow Hill and south of Romsey. Similarly, there are good sea views between 10-20km inland at Dean Hill, Farley Mount and Longwood Warren.
- Some views of the MCA can be gained between Kimmeridge within the Purbeck Heritage Coast and the Dorset AONB and Steyning within the South Downs National Park, including sections of the South Downs Way although these are not as extensive as those named above.
- Further inland, some views of the sea can be obtained from Badbury Rings, Edmondsham and Clearbury Ring within the Cranbourne Chase and West Wiltshire Downs AONB, as well as Middle Winterslow and Filmore Hill within the South Downs National Park.
- There are large areas >5km inland which have no views of the MCA.

# MCA 5: The Solent

Snapshot

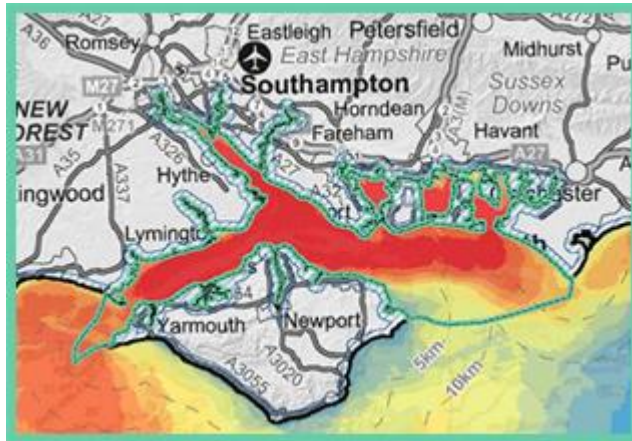
Key Characteristics

Description

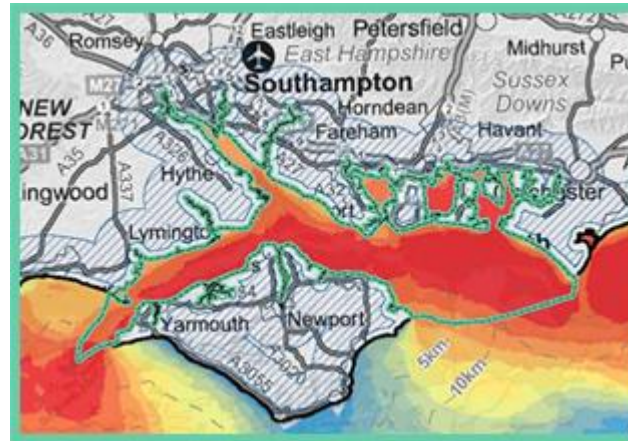
Visual Resource Mapping

## Visibility of sea from land

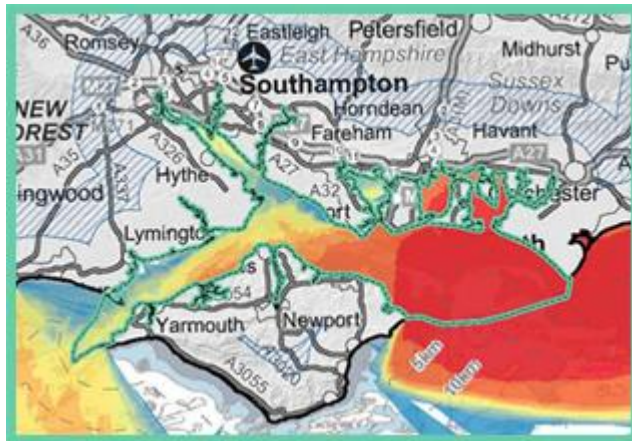
Relative visibility of the sea surface from viewers on land



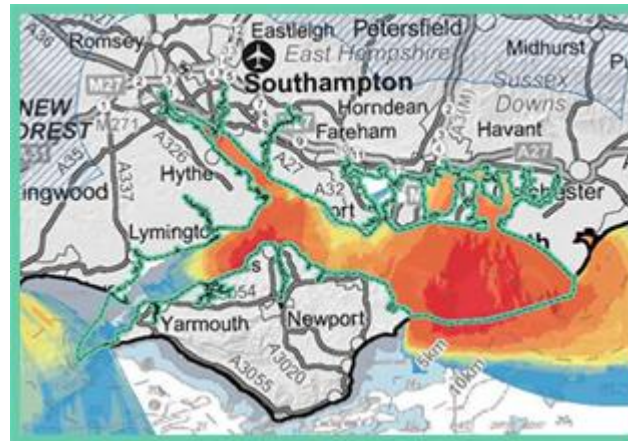
5-10km from the High Water Mark



0-1km from the High Water Mark



1-5km from the High Water Mark



10-20km from the High Water Mark

South Inshore/South Offshore marine plan areas

MCA5: The Solent

Location of viewers

Visibility of sea from land (percentile)

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

# MCA 5: The Solent

Snapshot

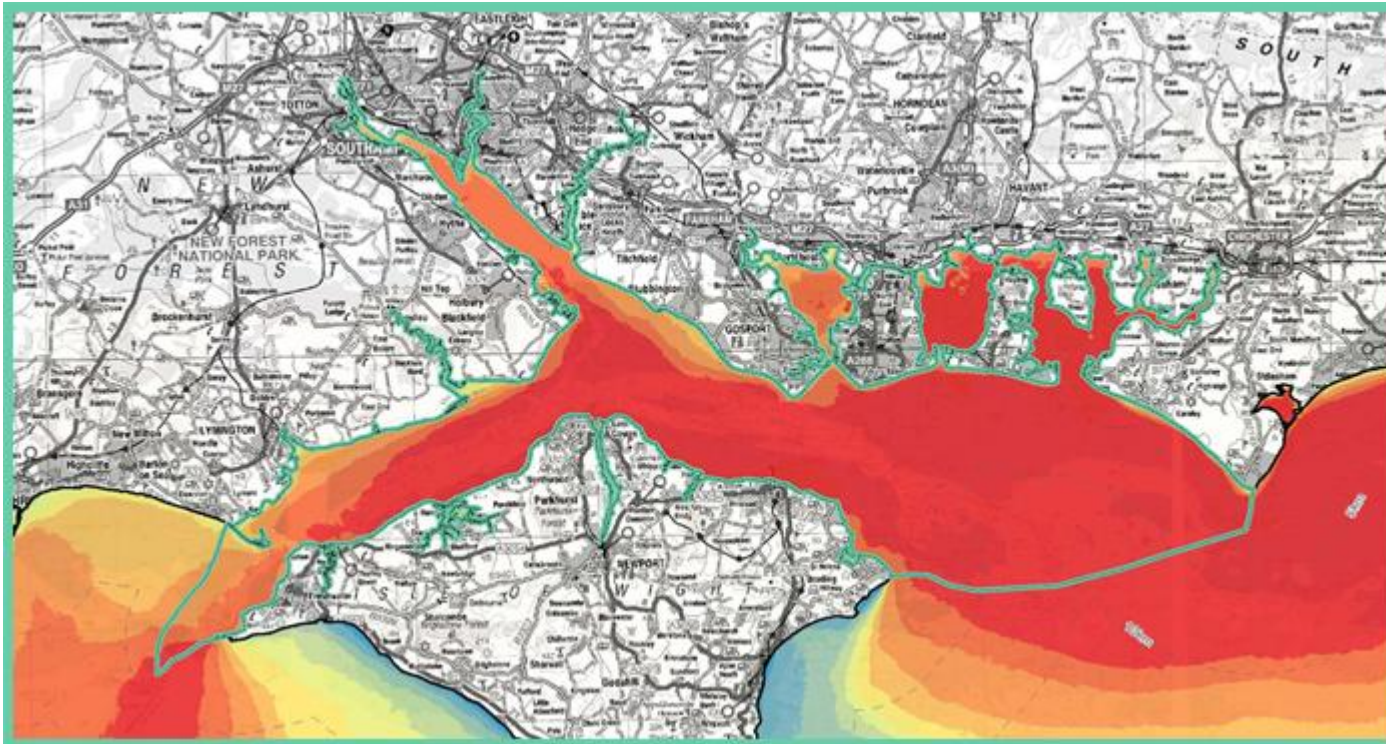
Key Characteristics

Description

Visual Resource Mapping

## Visibility of sea from land

Relative visibility of the sea surface from viewers on land



- The majority of the MCA is highly visible from the land.
- Almost all of the eastern extent of the MCA around the northern and eastern side of the Isle of Wight and around Langston and Chichester Harbour is shown to have high visibility from the land.
- Visibility dramatically increases offshore from the coastline except at Lee-on-the-Solent and at Beaulieu and Lymington Spits where increases are more gradual.

Up to 20km from the High Water Mark

South Inshore/South Offshore marine plan areas

MCA5: The Solent

Visibility of sea from land (percentile)

