

Summary Description

The Needles are one of the most distinctive views of the Solent region. These chalk pinnacles form a hazard to navigation through the narrow western Solent. Remains of shipwrecks spanning the historic period can be found in this area. Additionally the area has a geomorphological legacy, the chalk ridge once continued across to the Dorset coast-line, a feature which influenced the formation of the modern day Solent.

Sea Surface

The exposed headland of the Needles and narrow Needles Passage into the western Solent dominate this area. The Needles rocks and lighthouse have become iconic views, as well as serving as navigational markers, of the Isle of Wight seascape. Commercial shipping activity in this area is not as dense as the Eastern Solent due to the more hazardous passage through the narrow Needles Channel, however, so commercial vessels do use this route as it is a faster exit towards the English Channel.

Leisure craft dominate this area with many yachts plying the waters and high levels of racing activity. Scenic boat trips operate from Alum Bay offering close-up views of the Needles pillars. Although this whole area is designated as a military practice area only a few military craft are seen traversing the area.

Many small craft use the waters, particularly for sea fishing. Commercial fishing activity includes lobster potting.

Seabed Surface

The geomorphology of the area primarily consists of an exposed rocky foreshore, with the lee shore exposed to south west prevailing winds. Both the dramatic chalk formations and the dangerous tidal patterns of this area, if unknown, have proven fatal for many ships caught in bad weather. Consequently, this area has been rated as posing a high risk to navigation.

Shingle banks feature around the coastal area, stretching as far out as the Needles Bridge Buoy. To the north of the area the Shingles bank is situated. This gravel bank has been a prominent hazard to shipping for centuries and the number of recorded ship losses in the area reflects this.

The area is dominated by three, 100ft pinnacles of chalk, remnants of a ridge which once joined the Isle of Wight to the mainland, which continues to erode. Until 1764, a fourth stone stood in the chains largest gap. This fourth stone was tall and thin and shaped like a Needle, which is where the name originated from. Areas around the Needles themselves have been designated as a Site of Specific Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC), and a RAMSAR designated area.

The area features two designated wrecks: HMS *Pomone* and HMS *Assurance*, and their associated restriction zones. These sites have been subject to archaeological investigation. Other historic wrecks within the area have been investigated, these include two pieces of wreckage in Alum Bay and the remains of the *Campen* a Dutch East India vessel wrecked in 1627.

At least 23 other wreck dive sites are located in the area along with around 20 more unidentified obstructions, representing a graveyard for lost ships and meaning a high level of diving activity occurs.

Seabed Subsurface

Features within the available digital datasets reveal an aggregate dredging areas and a dumping area. Although, not revealed through the available marine datasets there has been extensive research into the seabed subsurface in the Needles area. Geophysical survey and research has revealed important traces of the old chalk ridge and associated sub-surface stratigraphy which is adding to knowledge of the development of the Solent and the geomorphology of the whole region. Closer to shore evidence for the survival of submerged prehistoric landscape deposits within the seabed has been revealed.



Coastal

The Needles Lighthouse on the tip of the rocks was built in 1859, to replace one on the clifftop. A fort, the Old Needles Battery was built in 1863, and has recently been restored by the National Trust and contains a museum of old gunnery. This military installation was built on the cliff top above the stacks in 1861-63 to guard the West end of the Solent.

The headland at High Down was used for rocket engine tests from 1956-71. The site is open to the public, owned by the National Trust.

Renowned for the coloured sands and chairlift, Alum Bay is a favourite mooring site because of its proximity to the Needles, leisure park, and coastal walks with seaviews. Fort Albert at nearby Colwell Bay is prominent within the coastal landscape.

A pier extends out from Totland, a sea wall has been constructed here to provide defence against erosion and further inundation.

Archaeological Potential

The archaeology of this area is dominated by the historic shipwreck resource which must be considered as very high potential. However, this western Solent area has been significantly affected by changing sea-levels during and since the last glacial period. This has left a trail of gravel deposits along the Pleistocene river valleys and the potential for the survival of submerged prehistoric landscapes within the seabed. Such deposits can reveal important evidence of sea level and climate change, early human populations and the development of Britain as an island and the Solent as a tidal waterway. There is also the potential to encounter the remains of crashed aircraft on the seabed, many of which are Second World War losses.

References

Cantwell, Anthony. *The Needles defences, 1525-1956*. St. Helens Ryde : Redoubt Consultancy, c1986.
Medland, J. C. *Alum Bay and the Needles*. Freshwater, Isle of Wight : Coach House, c1995.
Boyle, Martin. *Needles' Point.*. Southampton : B&T, c1996.
Around Yarmouth, Totland and Freshwater / compiled by Anthony Mitchell and Olive Mitchell.
Stroud : Tempus, 1998.

Links

The Needles Park - <http://www.theneedles.co.uk/>
The Needles Battery - <http://www.theneedlesbattery.org.uk/>
National Trust The Needles Old Battery - <http://www.nationaltrust.org.uk/main/w-vh/w-visits/w-findaplace/w-theneedlesoldbattery/>
The Needles Park - <http://www.theneedles.co.uk/>
Alum Bay Dive Trail - <http://www.hwtma.org.uk/projects/alum/trail.htm>
Alum Bay Glass - <http://www.wightonline.co.uk/alumbayglass/index.html>
Totland Parish Council - <http://www.totlandparishcouncil.org.uk/>
Hampshire and Wight Trust for Maritime Archaeology - <http://www.hwtma.org.uk>
Fort Victoria Country Park - <http://www.fortvictoria.co.uk/>
Isle of Wight Council: Fort Victoria - http://www.iwight.com/living_here/planning/Countryside/Site_Management/Fort_Victoria/
English Heritage: Fort Victoria and Needles Wreck Site - <http://www.english-heritage.org.uk/server/show/ConWebDoc.5608>



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Images



HWTMA Photo Number	NEE – A18
Character Area	The Needles Approaches
Description	Needles – looking north
Photographer:	Brian Sparks
Date Photographed:	1998



IoE number:	393095
Location:	FORT ALBERT
Description:	FRESHWATER, ISLE OF WIGHT, ISLE OF WIGHT
Photographer:	Tim Belcher
Date Photographed:	21 June 2005
Date listed:	28 March 1994
Date of last amendment:	28 March 1994
Grade	II*



HWTMA Photo Number	NE-00
Character Area	The Needles Approaches
Description	The Needles Protected Wreck Site
Photographer:	Garry Momber
Date Photographed:	2000



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