2 Qualifying Features of European Sites

2.1 SPA Qualifying Species and Assemblages

2.1.1 SPA qualifying species populations and assemblages are summarised in Table 2.1 and Table 2.2. The five species listed in Table 2.1 are summer visiting birds, nesting on shingle deposits and saltmarshes, with most nesting on the Hampshire shore of the Solent. Only occasionally do these birds nest on the Isle of Wight and never have they been recorded nesting in the vicinity of either of the road schemes likely to have a significant effect on this SPA (Duver Road and Bouldnor Road). Article 4.1 qualifying species do however feed along the Isle of Wight coast, in particular over the shallow sub-tidal north of Bouldnor Road, Yarmouth.

2.1.2 Birds for which the SPA qualifies under article 4.2 are wintering birds although the wintering population of some species can be supported by passage migrant birds that pass through the Solent in spring and late summer/autumn; for example ringed plover and black-tailed godwits are regularly present in the Solent in significant numbers in August and September.

Table 2.1: Species for which the SPA qualifies under Article 4.1 of the EU Birds Directive

Article 4.1 Qualification (79/409/EEC)	
During the breeding season the area regularly supports	
Mediterranean gull *Larus melanocephalus*	15.4% of GB breeding population 5 year peak mean, 1994-1998
Little tern *Sterna albifrons* Eastern Atlantic breeding population	2% of the breeding population 5 year peak mean, 1993-1997
Roseate tern *Sterna dougallii* European breeding population	3.1% of GB breeding population 5 year peak mean, 1993-1997
Common tern *Stern hirundo* *Northern/Eastern European breeding population*	2.2% of the GB breeding population 5 year peak mean, 1993-1997
Sandwich tern *Sterna sandvicensis* Western Europe/Western Africa breeding population	1.7% of GB breeding population 5 year peak mean, 1993-1997

2.2 Ramsar site qualifying features

2.2.1 The Solent and Southampton Water Ramsar site meets four of the qualifying criteria set by the Ramsar Convention as summarised in Table 2.3.

Table 2.2: Species and assemblages for which the SPA qualifies under Article 4.2 of the EU Birds Directive *(internationally important population of regularly occurring migratory birds)*

Article 4.2 Qualification (79/409/EEC)	
Over winter the area regularly supports:	
Eurasian teal *Anas crecca* North western European population	1.1% of the population 5 year peak mean, 1992/93-1996/97
Dark bellied Brent goose *Branta b. bernicula* Western Siberia/Western European population	2.5% of the population 5 year peak mean, 1992/93-1996/97
Ringed plover *Charadrius hiatucula* European/Northern African wintering population	1.2% of the population 5 year peak mean, 1992/93-1996/97
Black-tailed godwit *Limosa limosa islandica* Iceland breeding population	1.7% of the population 5 year peak mean, 1992/93-1996/97
Waterfowl assemblage of 51,361 individuals (5 year peak mean 01/10/1998) including: *Branta bernicla bernicla, Anas crecca, Charadrius hiaticula, Limosa limosa islandica*	

Table 2.3: Qualifying criteria for the Solent and Southampton Water Ramsar Site

Ctriteria	**Supporting Comments**
Criterion 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.	The site is one of the few major sheltered channels between a substantial Island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds coastal woodland and rocky boulder reefs.
Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.	The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.
Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.	Species with peak counts in winter: 51,343 waterfowl
Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Species with peak counts in spring/autumn: Ringed plover *Charadrius hiaticula:* 397 individuals, representing an average of 1.2% of the GB population Species with peak counts in winter:

Criterion 6 contd…	Dark-bellied brent goose *Branta bernicla bernicla:* 6,456 individuals, representing an average of 3% of the population. Eurasian teal *Anas crecca:* 5514 individuals, representing an average of 1.3% of the population. Black-tailed godwit *Limosa limosa islandica:* 1,240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3).

2.3 South Wight Maritime SAC qualifying features

2.3.1 The SAC has been selected for the presence of three habitats of European importance (listed on Annex 1 of the EU Habitats Directive). These are listed below;

Habitat 1170: Reefs

2.3.2 The southern shore of the Isle of Wight, off the coast of southern England, includes a number of subtidal reefs that extend into the intertidal zone. This site is selected on account of its variety of reef types and associated communities, including chalk, limestone and sandstone reefs. To the west and south-west some of the most important subtidal British chalk reefs occur, representing over 5% of Europe's coastal chalk exposures, including the extensive tide-swept reef off the Needles and examples at Culver Cliff and Freshwater Bay. These support a diverse range of species in both the subtidal and intertidal.

2.3.3 Other reef habitats within the site include areas of large boulders off the coast around Ventnor. There is a large reef of harder limestone off Bembridge and Whitecliff Bay, where the horizontal and vertical faces and crevices provide a range of habitats. The bedrock is extensively bored by bivalves. Their presence, together with the holes they create, give shelter to other species, which adds further to habitat diversity. Intertidal pools support a diverse marine life, including a number of rare or unusual seaweeds, such as the shepherd's purse seaweed *Gracilaria bursa-pastoris*. A number of other species reach their eastern limit of distribution along the English Channel at the Isle of Wight.

Habitat 1230: Vegetated sea cliffs of the Atlantic and Baltic coasts

2.3.4 South Wight Maritime on the south coast of England represents contrasting Cretaceous hard cliffs, semi-stable soft cliffs and mobile soft cliffs. The western and eastern extremities of the site consist of high chalk cliffs with species-rich calcareous grassland vegetation, the former exposed to maritime influence and the latter comparatively sheltered. At the western end, the site adjoins the Isle of Wight Downs, providing an unusual combination of maritime and chalk grassland. The most exposed chalk cliff tops support important assemblages of nationally rare lichens, including *Fulgensia fulgens*.

2.3.5 The longest section is composed of slumping acidic sandstones and neutral clays with an exposed south-westerly aspect. The vegetation communities are a mixture of acidic and mesotrophic grasslands with some scrub and a greater element of maritime species, such as thrift *Armeria maritima*, than is usual on soft cliffs. This section supports the Glanville fritillary butterfly *Melitaea cinxia* in its main English stronghold. A small, separate section of the site on clays has a range of successional stages, including woodland, influenced by landslips. These cliffs are minimally affected by sea defence works, which elsewhere disrupt ecological processes linked to coastal erosion, and together they form one of the longest lengths of naturally-developing soft cliffs on the UK coastline.

Habitat 8330: Submerged or partially submerged sea caves

2.3.6 The southern shore of the Isle of Wight, off the coast of southern England, includes a number of either submerged or partially submerged sea caves. The exposure of the south coast of the Island to high wave energy has allowed the erosion of the Cretaceous calcareous hard cliffs to form sea caves. Examples of this habitat can be found from the Needles along the south-west coast of the Island to Watcombe Bay, and also in Culver Cliff on the south-east coast of the Island. This site also contains the only known location of subtidal chalk caves in the UK. The large littoral caves in the chalk cliffs are of ecological importance, with many hosting rare algal species, which are restricted to this type of habitat. The fauna of these sea caves includes a range of mollusc species such as limpets *Patella* spp. and the horseshoe worm *Phoronis hippocrepia.*

2.4 Conservation Objectives

2.4.1 Given that the proposed highway improvements are not directly connected with or necessary to the management of the European sites affected, Regulation 61 requires that an Appropriate Assessment is undertaken of the implications of the proposals 'in view of the site's conservation objectives'. It is therefore necessary to carefully define and fully understand these objectives. Conservation Objectives are published by Natural England for the component SSSI within European and Ramsar Sites. These relate to site interest features (the range of habitats and species populations) for which the sites have been classified, designated or listed under the appropriate Directive or Convention, and are summarised in Table 2.1, Table 2.2 and Table 2.3.

2.4.2 The Habitats Directive requires that Member States maintain or where appropriate restore habitats and species populations of European Importance to favourable conservation status. Guidance from the EC states:

"The conservation status of natural habitat types and species present on a site is assessed according to a number of criteria established by Article 1 of the directive. This assessment is done both at site and network level." (European Commission, 2000; p.19)

2.4.3 In the UK, the term favourable condition has been used to differentiate the status of a site as compared to that of the wider network of European sites.

2.4.4 The over-riding conservation objectives for the Solent and Southampton Water SPA and South Wight Maritime SAC have been defined by Natural England, as summarised in Box 3.

Box 3: Summarised conservation objectives for the SPA and SAC

Special Protection Area

Subject to natural change, to maintain the habitats in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.

Maintenance implies restoration if the feature is not currently in favourable condition.

Special Area of Conservation

Subject to natural change, to maintain the habitats in favourable condition, with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages, etc.) for which the land is designated.

Maintenance implies restoration if the feature is not currently in favourable condition.

2.4.5 Regulation 61 (b) requires that the Appropriate Assessment is made of the implications for that site in view of that site's conservation objectives. To make such an assessment, it is necessary to understand in more detail the features of the sites that contribute to their favourable condition or conservation status. Natural England have published detailed Favourable Condition Tables (FCT) in which various attributes of the habitat and species populations are defined for assessing site condition. These were developed from the definition of Favourable Conservation Status provided in Article 1 of the Habitats Directive (see Box 2 of the Screening Statement).

2.4.6 For the populations of birds within the Solent and Southampton Water SPA, favourable conservation status can be defined by reference to Article 1(i), and for the habitats within the South Wight Maritime SAC by reference to Article 1(e).

2.5 Conservation Objectives for the Solent and Southampton Water SPA

Objective 1

Maintain the population of;

- *Internationally important populations of the regularly occurring Annex 1 species,*
- *Internationally important populations of the regularly occurring migratory species,*
- *Internationally important assemblage of regularly occurring migrant waterfowl,*

as a viable component of their natural habitats on a long-term basis.

Objective 2

Maintain the range (geographic extent) of the population of ;

- *Internationally important populations of the regularly occurring Annex 1 species,*
- *Internationally important populations of the regularly occurring migratory species,*
- *Internationally important assemblage of regularly occurring migrant waterfowl,*

for the foreseeable future.

Objective 3

Maintain sufficient area of suitable habitat to maintain the populations of ;

- *Internationally important populations of the regularly occurring Annex 1 species,*
- *Internationally important populations of the regularly occurring migratory species,*
- *Internationally important assemblage of regularly occurring migrant waterfowl, on a long term basis.*

2.6 Conservation Objectives for the South Wight Maritime SAC

Objective 4

The geographical distribution of the habitats and their overall area within the sites should be maintained or increased.

Objective 5

The mix of species (their species structure) and the ecological inter-relationships between these and other environmental and management factors (ecological function) which are needed for the long-term maintenance of the habitats should be likely to continue to exist.

Objective 6

The conservation status of the habitats' typical species should be maintained in terms of their population size, range and habitat extent.

2.6.1 Some typical species of each Annex 1 habitat are listed in Table 2.4. These are derived from a combination of sources, including the JNCC Annex 1 habitat account [2] and The EU Interpretation Manual of European Union Habitats[3].

2.7 Conservation objectives for the Solent and Southampton Water Ramsar Site

2.7.1 Conservation objectives for the bird qualifying criteria (criteria 5 and 6) of the Ramsar site are covered by those for the SPA in Objectives 1-3. Two additional conservation objectives have been defined for those features of the Ramsar site meeting qualifying criteria 1 and 2.

Objective 7

Subject to natural change, maintain the internationally important wetlands defined by their wetland characteristics in favourable condition, in particular: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds coastal woodland and rocky boulder reefs.

[2] JNCC website: http://jncc.defra.gov.uk/ProtectedSites/SACselection/SAC_habitats.asp

[3] European Commission (2003). Interpretation Manual of European Union Habitats EUR 25

Objective 8

Subject to natural change, maintain the populations, distribution and habitats of the internationally important vulnerable, endangered, or critically endangered species or threatened ecological communities.

Table 2.4: Typical species of Annex 1 habitat types present with South Wight Maritime SAC (based on information from the JNCC and European Commission (2003))[4]

Annex 1 Habitat Type	Typical species
Habitat 1170: Reefs	The SAC includes a range of reef types ranging from chalk and limestone to sandstone and support an extremely variable range of marine species. In general, littoral rock tends to be colonised by algae in wave-sheltered conditions, and by limpets, barnacles and mussels as wave-exposure increases. In the intertidal zone, lichens occur at the top of the shore, with littoral biotopes characterised by barnacles, mussels or species of fucoid (wrack) seaweeds. Chalk reefs support foliose red algae and small brown algae on upward facing surfaces, turfs of hydroids and sea-mats, and an abundance of sponges and animals which bore into the soft rock. Intertidal rock pools support a diverse marine life, including a number of rare or unusual seaweeds, such as the shepherd's purse seaweed.
Habitat 1230: Vegetated sea cliffs of the Atlantic and Baltic coasts	The flora varies greatly between rock types. Typical species of chalk cliffs include wild cabbage *Brassica oleracea*, yellow horned poppy *Glaucium flavum*, hoary stock *Matthiola incana* and rock samphire *Crithmum maritimum*. Other cliffs are typified by presence of rock sea-spurry *Spergularia rupicola*, sea thrift *Armeria maritima*, soft brome grass *Bromus feronii* and wild carrot *Daucus carota*. Newly exposed soft rock cliffs are typified by the presence of colts foot *Tussilago farfara* and the giant horsetail *Equisetum telmateia*. The invertebrate fauna is particularly important and includes many rare burrowing bees and wasps, the Glanville fritillary butterfly and cliff tiger beetle *Cicindela germanica*.
Habitat 8330: Submerged or partially submerged sea caves	Examples of this habitat are restricted chalk cliffs between Freshwater Bay and the Needles and Culver Cliff on the south-east coast of the Island and include the only known location of subtidal chalk caves in the UK. The sea caves host many rare algal species, which are restricted to this type of habitat. The fauna includes a range of mollusc species such as limpets *Patella spp.* and the horseshoe worm *Phoronis hippocrepia*.

[4] Ibid

This page is intentionally blank.