

State of the Solent Edition 3:

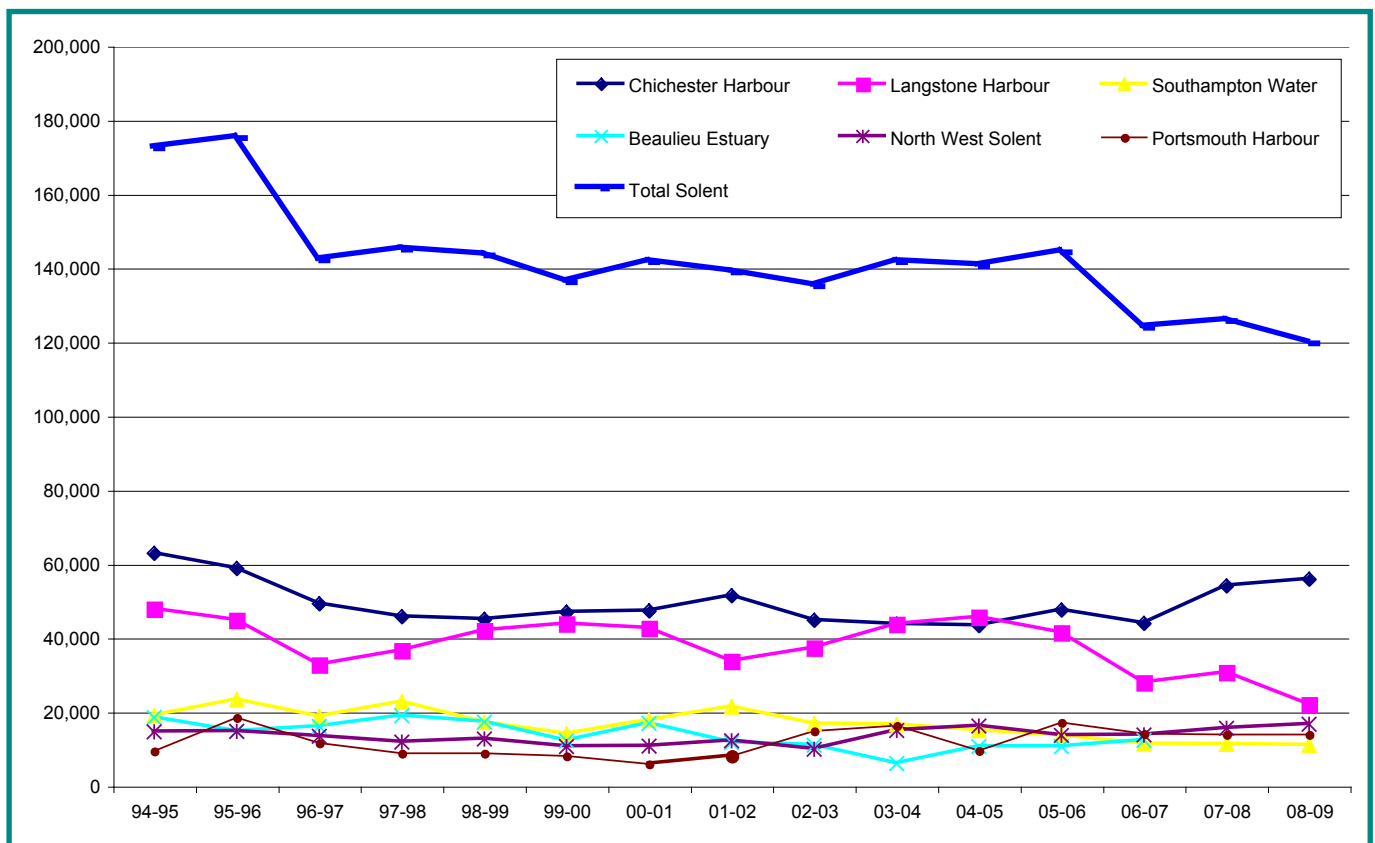
2. Nature Conservation Indicators



The long term aim for Nature Conservation in the Strategic Guidance for the Solent is 'to ensure that the nature conservation value of the Solent is understood, maintained and enhanced'. The Solent is a huge single estuarine system which contains in excess of 9,000 ha of intertidal sediment, and includes over 6,000 ha of mudflats, 7,000 ha of sandflats, 400 ha of ancient saltmarsh and nearly 1,800 ha of Spartina marsh. The mudflats are rich in invertebrates and are consequently important feeding grounds for waterfowl and waders. Much of this environment is protected by nature conservation designations and the habitats and species within these designations are monitored.

As the environment of the Solent is at the heart of the area itself it is important that the coastal habitats are managed to ensure long term sustainability. The coast is a dynamic environment and as such is always changing in response to pressures like climate change and sea level rise. However, as much of the Solent coast is defended, the habitats cannot respond in their natural way to these changes and so we are seeing a loss in intertidal habitats due to 'coastal squeeze'. Other pressures on the Solent's habitats and species are from the number of people who live, work and play on the Solent's coast. These need to be managed hand in hand as it is the impressive coastal environment which attracts people to the Solent, and this in turn strengthens the economy of the area.

2.1 Indicator: Wildfowl and wader counts



Source: Total Number of Waterfowl at Principal Waterfowl Sites in the Solent as Monitored by the Wetland Bird Survey (WeBS).

Supplementary data: Alerts for the Solent and Southampton Water

	Short Term	Medium Term	Long Term	Since Designation
Dunlin		High	High	
Shelduck	Medium	High	High	Medium
Red-breasted Merganser				Medium
Ringed Plover			Medium	
Lapwing			Medium	
Dunlin	Medium		Medium	Medium
Redshank			Medium	Medium
Sanderling				
Cormorant				
Grey Plover				
Knot				
Black-tailed Godwit				
Bar-tailed Godwit				
Teal				

Source: British Trust for Ornithology

Supplementary data: Alerts for Chichester and Langstone Harbours

	Short Term	Medium Term	Long Term	Since Designation
Dunlin			Medium	Medium
Shelduck			High	High
Red-breasted Merganser				
Ringed Plover		High	Medium	High
Lapwing		Medium		
Dunlin				
Redshank				
Sanderling			High	Medium
Cormorant			Medium	Medium
Grey Plover		Medium		
Knot		Medium		Medium
Black-tailed Godwit			Medium	Medium
Bar-tailed Godwit			Medium	Medium
Teal			Medium	

Source: British Trust for Ornithology

2.1 Reason for indicator selection

Wild bird populations are good indicators of the state of wildlife generally as they are relatively high up the food chain and so reflect changes which are occurring lower down (Joint Nature Conservation Committee (JNCC)). They also give a representation of the health of the wider coast outside specially protected sites. The Solent is an important area for both breeding and over wintering birds and its habitats and supports a large number of nationally and internationally important bird populations. The wildfowl and wader populations which use the Solent tend to use the whole area so this indicator would help measure the health of the whole Solent system.

Birds have meaning, resonance and symbolic value with many audiences, and are extremely popular with the public so this helps make the indicator widely understood. As well as the numbers of wetland birds at the principle sites in the Solent, information is also included on the Alerts which are raised by the British Trust for Ornithology (BTO). This indicates which species are in decline in the different SPAs in the Solent.

The BTO use the Wetland Bird Survey (WeBS) counts to analyse trends in waterbird numbers on protected areas. The Alerts System identifies species that have undergone major declines in numbers and flags these species by issuing an Alert. Trends are assessed over the short, medium, and long-terms (5, 10 and up to 25 years respectively) and also since site-designation. If declines exceed 50%, then a High-Alerts is issued and if declines exceed 25% then a Medium-Alert is issued. The Alerts Report is also the premier source of information for waterbird trends in the UK and its Constituent Countries (BTO, 2009).

2.1 Where does the data come from?

The data is collected annually through the WeBS counts and is available online. The data comes from the raw count data that is collected annually by volunteers. The Alerts data is also available from the British Trust for Ornithology and is freely available online.

2.1 What the indicator shows

With regards to total number of waders and wildfowl counts, the total number of birds recorded has declined from 1994 when the Solent Forum first began collecting this data. However for a period of about 10 years these numbers were fairly steady and there has been a dip over the years 2005-2006. Bird numbers do fluctuate and we would need to continue to collect this indicator in order to determine if the fall in numbers is going to continue or if it will again stabilise.

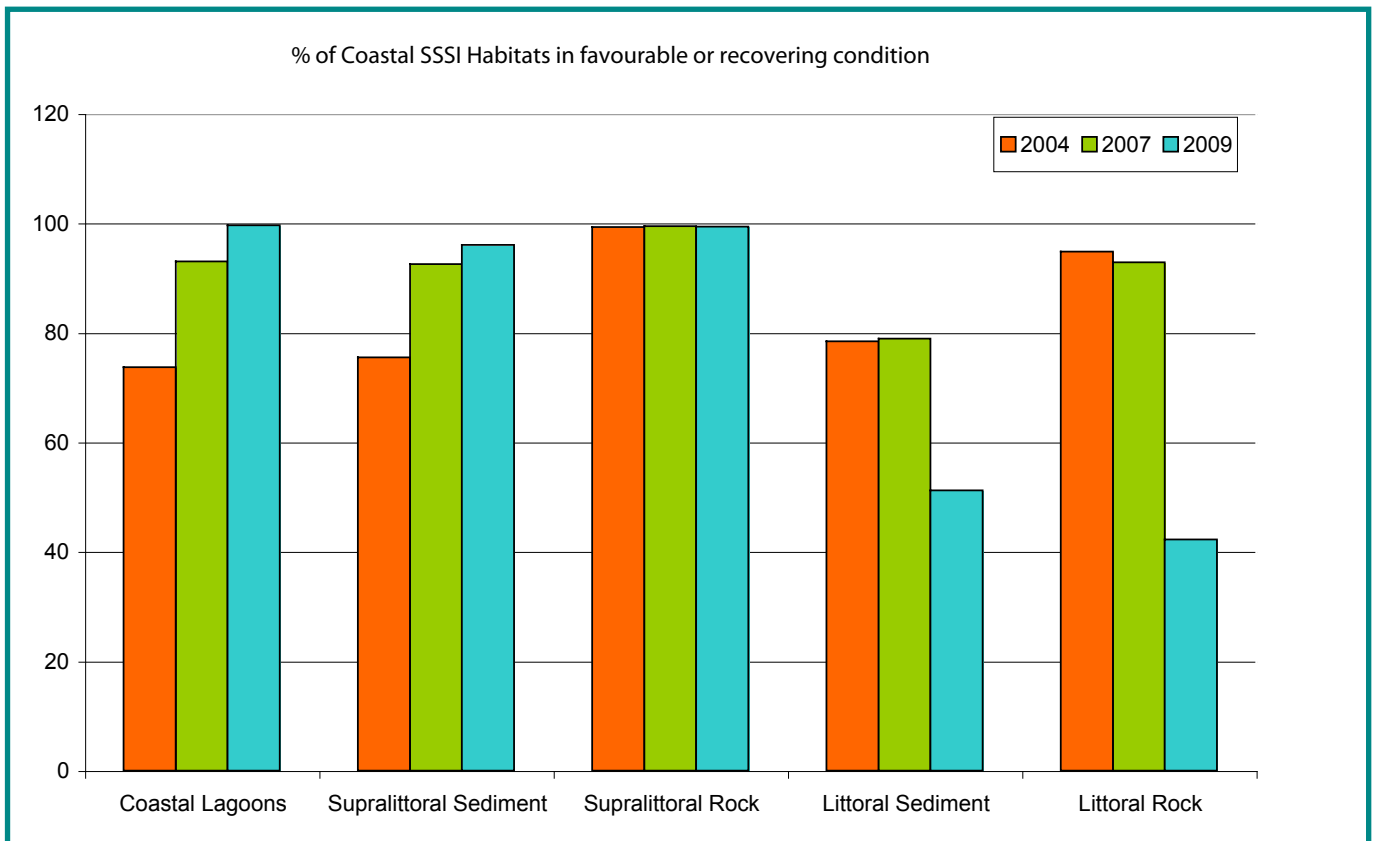
The JNCC also used the indicator of wintering water bird populations and have collected data going back to 1975. On a national level the 2007-8, the wintering waterbirds population measure was 88 per cent higher than in 1975-6. Populations peaked in 1996-7, but there has been a decline in more recent years (JNCC). This trend would seem to be similar to the information which is being shown for the Solent.

Alerts have been raised for bird species in the Solent and Southampton Water SPA and the Chichester and Langstone Harbour SPA. None were raised for the Portsmouth Harbour SPA. In the Solent and Southampton Water SPA 18 species were evaluated and alerts were raised for six. Two species Dunlin and Shelduck had high alerts issued for the medium and long term. In Chichester and Langstone Harbour SPA 21 species were evaluated and alerts raised for 11 species, with high alerts being raised for Ringed Plover, Sanderling and Shelduck. Of course some species of waterbirds have increasing population numbers but these alerts do highlight that some species are in decline and more work is needed to try and ascertain the causes of the changes.

2.2 Indicator: Change in extent of coastal habitats in the Solent

The data for this indicator is currently unavailable, so has not been collected for this edition. It was collected for Edition 2, published in 2004. Please contact the Forum Office for more details. If the data becomes available in the future it will be included in the fourth edition of this publication.

2.3 Indicator: Condition of sites designated for nature conservation



Source: Natural England

2.3 Reason for indicator selection

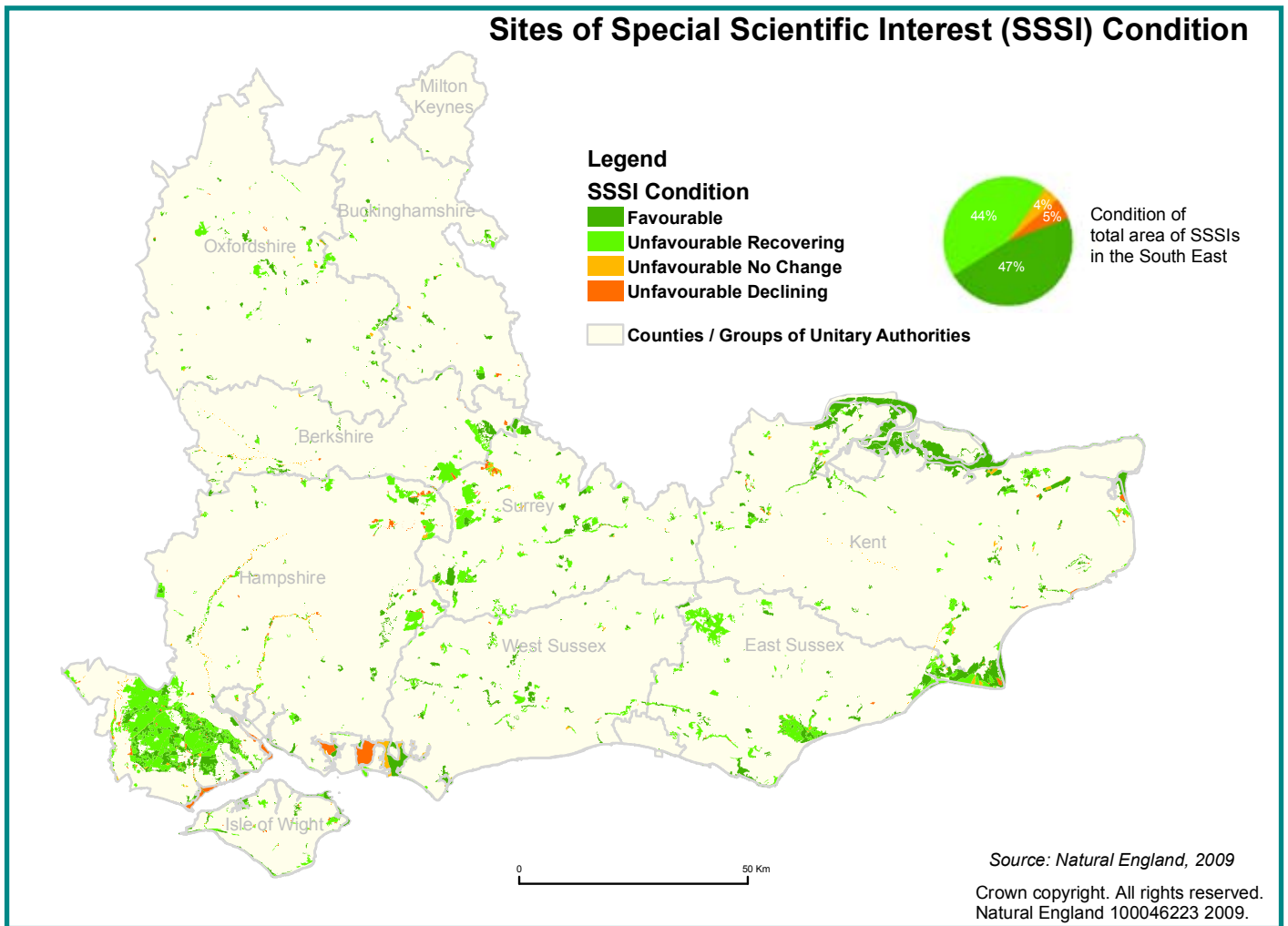
Much of the Solent's coastal habitats are protected by designations. These designated sites support many characteristic, rare and endangered species, habitats and natural features. This indicator will reflect the effectiveness of the management of protected coastal sites and also the state of nationally and internationally important habitats and species. This indicator is especially relevant to the Solent which has a large number of nationally and internationally important coastal sites which are designated. It will also highlight if there are any coastal habitats which are at risk. The reasons for this decline or improvement can then be identified and future management can be improved or tailored to the changing situation.

This indicator is also used at the regional level by the Environment Agency in their State of the Environment Reports and at the national level in the governments sustainability indicators. Similar indicators are also used at the European Level.

2.3 What are the implications for coastal planning and management

To ensure that we continue to understand, maintain and enhance the nature conservation of the Solent we need to investigate what the pressures on the Solent's protected bird populations are. There is much work being carried out regarding this by the Solent Forum and member organisations. Key projects include the Wader Roost Project and the Solent Disturbance project. The outcomes of these will help ensure that the management of the habitats and sites important to the Solent's protected birds species are managed to reduce any pressures (present and future).

2.3 Indicator: Condition of sites designated for nature conservation, cont..



2.3 Where does the data come from?

The purpose of SSSI has been stated as “to safeguard, for present and future generations, the diversity and geographic range of habitats, species and geological and physiographical features, including the full range of natural and seminatural ecosystems and of important geological and physiographical phenomena throughout England” (Defra, 2003). The network of Sites of Special Scientific Interest (SSSIs) is the basis for European Designations and all sites which are designated with a European Designation are also designated as SSSI. The condition of the SSSI is measured using a common standards method measuring the condition of the feature for which the site was notified, or designated for, in the case of SPAs and SACs.

2.3 What the indicator shows

Coastal Lagoons, supralittoral sediment and supralittoral rock are all in good or improving condition and are hitting the Natural England target for all SSSI to be in good or improving condition by 2010. However, the littoral sediment and littoral rock habitats have shown a decline in their condition since the data was last collected in 2007. This is the opposite of the trend which is recorded for the country as a whole, where the littoral rock and sediment conditions have improved year on year and are now achieving the target of 95% in good or recovering condition. However the trend is in line with results for the southeast region as areas of intertidal habitat have already been lost to sea level rise and there have been significant losses of saltmarsh across 12 Special Protection Areas (Natural

2.3 What are the implications for coastal planning and management

Sea level rise is one of the major challenges that we will face and it needs to be looked at holistically. An integrated management plan is needed to manage the implications for habitats along with the other uses of the Solent. This should happen as part of the management of the European Marine site and the SSSI habitats.

Further Information

- Solent Disc (catalogue of Solent research and reports) at www.solentforum.org/disc/.
- WeBS principal sites data http://www.bto.org/webs/news/AR08_09/index.htm
- WeBS alerts data: <http://www.bto.org/webs/alerts/>.
- JNCC info on wetland bird trends: http://www.jncc.gov.uk/pdf/BIYP_2010.pdf.
- Natural England Website, <http://www.naturalengland.org.uk>.
- Environment Agency State of the Environment report: www.environment-agency.gov.uk/research/library/publications/34103.aspx.
- Defra SSSI condition indicators including coastal habitats: www.defra.gov.uk/environment/biodiversity/documents/indicator/200905m2.pdf.
- Natural England State of the Natural Environment Report for the South East, www.naturalengland.org.uk/publications/sone/default.aspx.