1. Extent and condition of protected areas

Type: Extent – Response indicator; Condition – State indicator

Indicator short description

The first part of this indicator shows the extent of protected areas in England. Designation and management of these areas is a key mechanism for conserving wildlife and geological features on land and at sea. Protected areas cover the most valuable of sites for biodiversity and geodiversity in England and provide a legal mechanism for ensuring their protection.

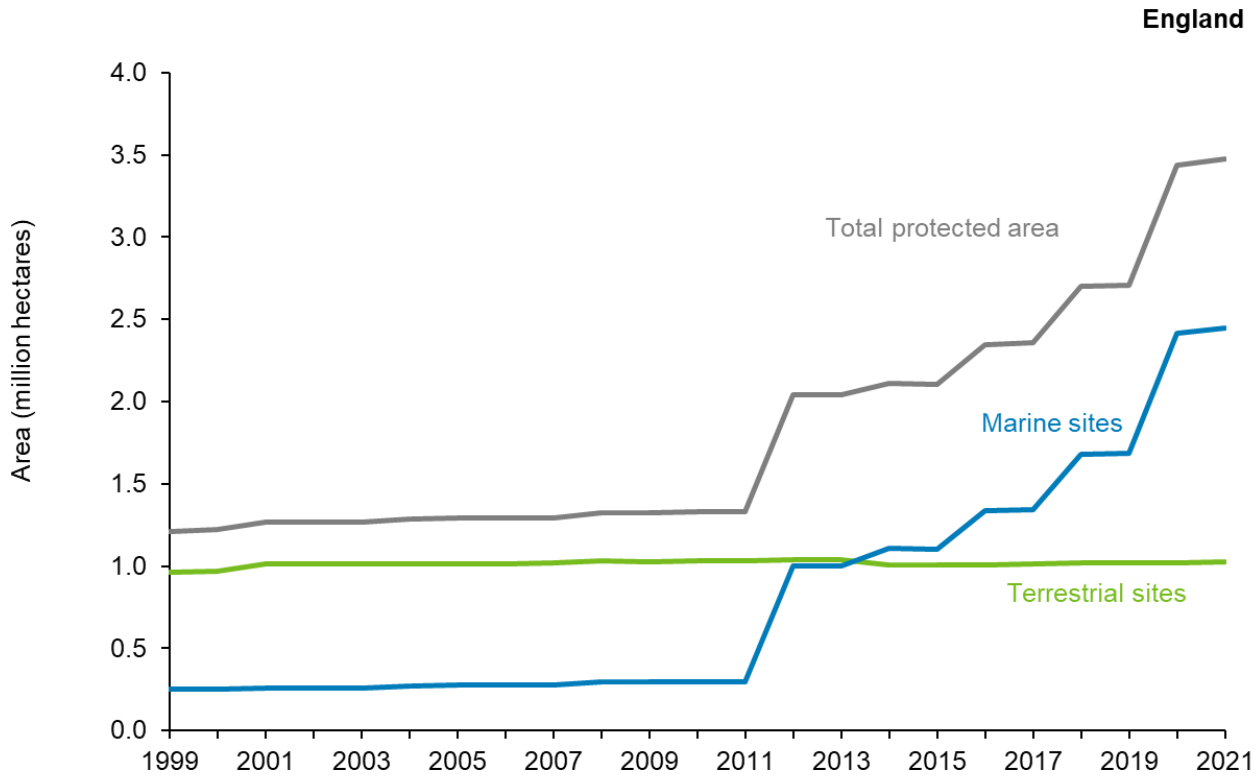
1a. Extent of protected areas

The total extent of land and sea protected in England through national and international protected areas increased from 1.2 million to 3.5 million hectares between 1999 and 2021; an increase of 187% (Figure 1.1).

This total consists of over 1 million hectares of terrestrial and freshwater areas, representing about 8% of the land area of England and just under 2.5 million hectares of marine sites (out to the 12 nautical mile limit), representing 47% of inshore waters around England.

The area of terrestrial and freshwater sites has remained relatively static since 1999, whereas the area of marine sites has increased substantially over the most recent 5 years; by 83% to 2021 and by 1% in the latest year. Further detail on this increase can be found in the background section.

Figure 1.1: Extent of protected areas in England on land and at sea, 1999 to 2021



Notes:

1. The extent of protected sites is the cumulative area assessed in March of each year shown.
2. Extent is based on the following designations: Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Special Protection Areas (SPA), National Nature Reserves (NNR), Ramsar sites and Marine Conservation Zones (MCZ).
3. For sites that span English borders, only the area within England is included.
4. Sites between mean low water and the 12 nautical mile limit are included in the 'marine' measure; sites beyond 12 nautical miles, in UK waters, are excluded. These are covered by the UK protected sites indicator.

Source: Natural England.

The figures include sites on land (terrestrial, freshwater and coastal areas to mean low water (MLW)) and at sea protected by 6 designations: Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Special Protection Areas (SPA), National Nature Reserves (NNR), Ramsar sites and Marine Conservation Zones (MCZ). Any one protected area can have more than one designation, but each site contributes only once to the indicator total.

1b. Condition of Sites of Special Scientific Interest (SSSI)

Indicator short description

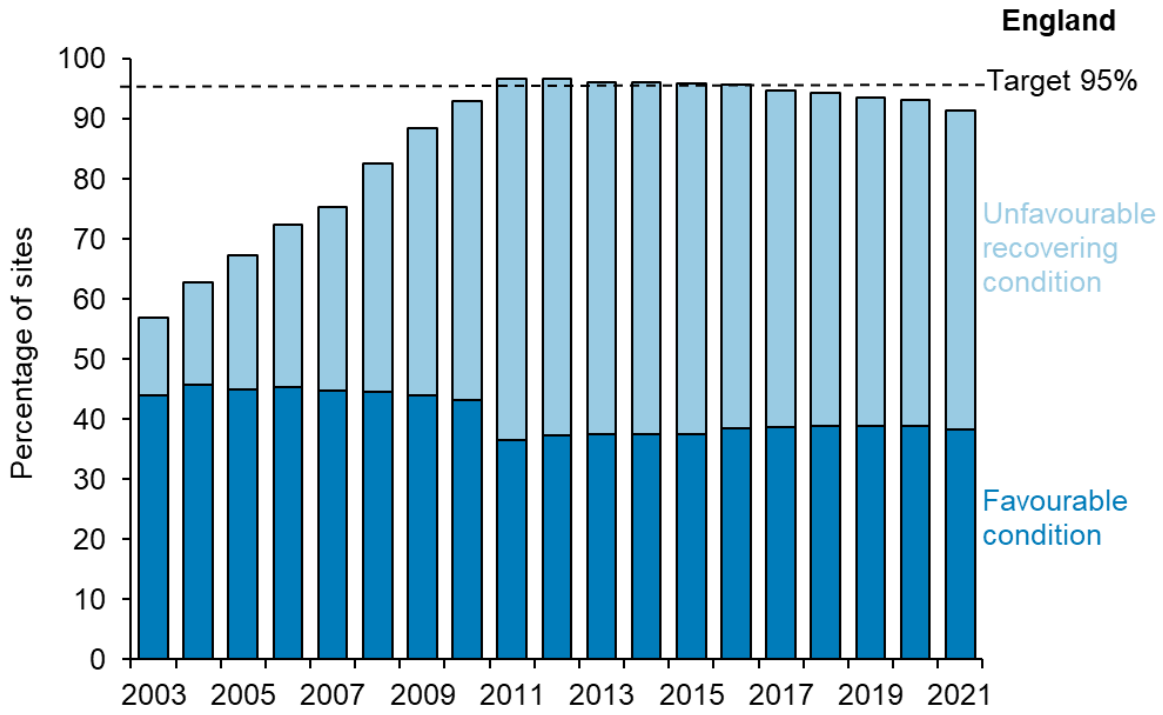
The second part of this indicator shows the proportion of SSSI features, by area, meeting set condition criteria. Features are the species or habitats for which the sites have been designated. SSSI features have been assessed since 2003 and the latest data available are to March 2021.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services has a higher-level outcome to achieve *"… at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition".*

There has been a net decrease in the area of SSSIs in favourable condition; down from 44.0% in 2003 to 38.4% in March 2021 (Figure 1.2). The sudden drop in the SSSI area in favourable condition from 43.2% in 2010 to 36.6% in 2011 was largely due to a more rigorous application of the 'Common Standard for Monitoring' protocols in assessing feature condition.

Over the past 5 years, there has been very little change in the area of SSSIs in favourable condition, from 38.5% in 2016 to 38.4% in 2021. The area in unfavourable recovering condition has increased substantially from 13.0% in 2003 to 53.0% in 2021. The overall proportion of SSSIs in favourable or unfavourable recovering condition remained above the 95% target from 2011 to 2016 but has since fallen year-on-year to 91.4% in 2021.

Figure 1.2: Cumulative proportion of Sites of Special Scientific Interest in favourable or unfavourable recovering condition, 2003 to 2021



Notes:

1. Site condition is the cumulative area assessed in March of each year shown. As new assessments are completed they replace the previous ones, so the graph is a snapshot of the condition of the site network at a given point in time.
2. The black dotted line shows the '*Biodiversity 2020*' target.
3. The drop in the SSSI area in favourable condition between 2010 and 2011 was largely due to a more rigorous application of the 'Common Standard for Monitoring' protocols in assessing feature condition.

Source: Natural England.

Indicator assessment

Assessment of change in extent and condition of protected areas:

Extent on land: Long term (1999 to 2021): Improving; Short term (2016 to 2021) No overall change; Latest year (2021) No change

Extent at Sea: Long term (1999 to 2021) Improving; Short term (2016 to 2021): Improving; Latest year (2021): No change

For SSSIs in favourable or unfavourable recovering condition: Long term (2003 to 2021) Improving; Short term (2016 to 2021) Deteriorating; Latest year (2021) Decrease

Note: Long-term and short-term assessment of the individual measures are based on a 3% rule of thumb. The base year for these assessments uses a 3-year average. See Assessing Indicators.

Relevance

The indicator shows progress with commitments to improve the status of our wildlife and habitats. It is relevant to outcomes 1, 1A, 1C and 2A in *Biodiversity 2020: A strategy for England's wildlife and ecosystem services* (see Annex A). It is also relevant to a number of international targets (see Annex B of the aforementioned publication for further details).

Background

Extent

The total extent of protected areas in Figure 1.1 is the combined area of:

- Nationally designated sites (Sites of Special Scientific Interest (SSSI) National Nature Reserves (NNR), and Marine Conservation Zones (MCZ)), and
- Internationally designated Special Protection Areas (SPA) and Special Areas of Conservation (SAC, including candidate Special Areas of Conservation and Sites of Community Importance), and sites designated under the Convention on Wetlands of International Importance (Ramsar).

There is considerable geographic overlap in these designations, with many sites being designated as 2 or more of SSSI, NNR, MCZ, SAC, SPA and Ramsar, although such sites contribute only once to the calculated areas presented here. The indicator is based on a spatial analysis of protected area polygons which removes overlaps between designation types. As a result of the calculation method there may be small differences from previously published results. Coastal sites are split at mean low water and contribute to both the terrestrial and marine lines in Figure 1.1.

During 2014, Natural England commissioned a new mean low water (MLW) line to more accurately delineate the terrestrial and marine sites. Thus, despite there being an increase in the number of SSSI in that year, the reported terrestrial area in England decreased by almost 20,000 hectares. There was a concomitant increase in the SSSI marine area over the same year.

SSSIs can be designated to protect biological (species and/or habitats) and/or geological (landforms and/or geology) features. Sites may be designated as just biological, just geological, or as mixed biological/geological sites.

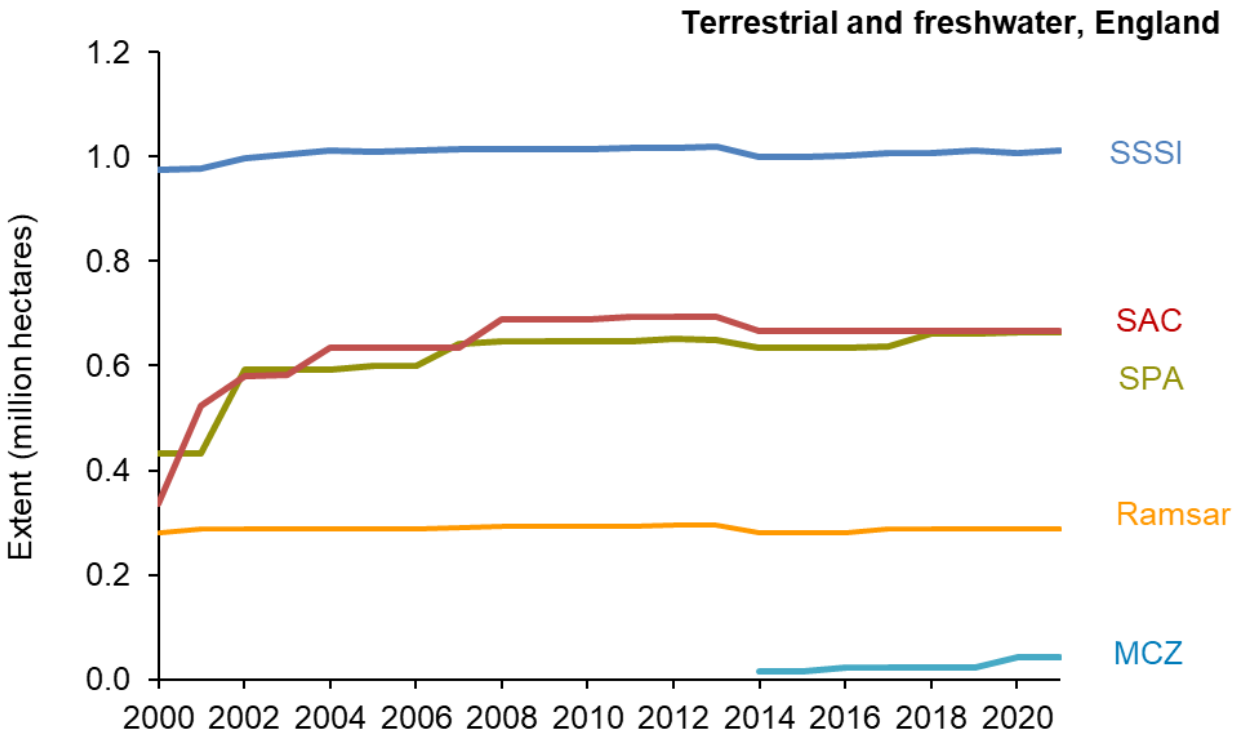
The SSSI designation underpins almost all of the international sites to the MLW mark, but the European sites go beyond this with the inclusion of marine areas. Figure 1.1 shows the cumulative effect of adding European sites to the protected areas network over time, as they were submitted in a number of tranches to the European Commission over several years. In the last few years, the majority of terrestrial sites required to be designated under the Birds and Habitats Directives have now been submitted to the European Commission, however marine sites are still being designated. There are currently 256 SACs covering over 5.6 million hectares and 88 SPAs covering over 2.0 million hectares. Figure 1.3 shows the change in the extent of different designation types on land (above the MLW mark) and Figure 1.4 shows the equivalent changes at sea (below the MLW mark to 12 nautical miles) since 2000.

In the 5 years to 2021, the area of terrestrial and freshwater sites in England has remained relatively constant, whereas the area of marine sites has more than doubled to just under 2.5 million hectares. A large contributor to this has been the designation of inshore marine sites under the European Birds and Habitats Directives. The first jump was an increase of almost 800,000 hectares in marine SACs/SPAs designated from 2011 to 2012. This was followed by an additional 140,000 hectares of marine SACs/SPAs in 2014. More recently,

over 600,000 hectares of marine SPAs were designated from 2017 to 2018 and almost 800,000 hectares of marine SACs were designated in the year to 31 March 2020.

Marine Conservation Zones have also contributed substantially to the increase in area of inshore marine sites around England. These zones are designated by government under the Marine and Coastal Access Act 2009 to conserve the diversity of nationally rare, threatened and representative habitats and species. There were 91 MCZs in waters around England at 31 March 2021; the first 27 zones were designated in November 2013 resulting in the increase of 109,000 hectares visible in the 2014 data. The second phase designated a further 23 sites in January 2016, resulting in the increase of 240,000 hectares seen in the 2016 data. The third and largest phase so far designated a further 41 sites in May 2019, resulting in the increase of over 726,000 hectares seen in the 2020 data. The third phase essentially completed the UK Blue Belt and the UK's contribution to the ecologically coherent network in the North East Atlantic in terms of the representation of species and habitats.

Figure 1.3: Extent of protected sites on land in England, by designation, 2000 to 2021

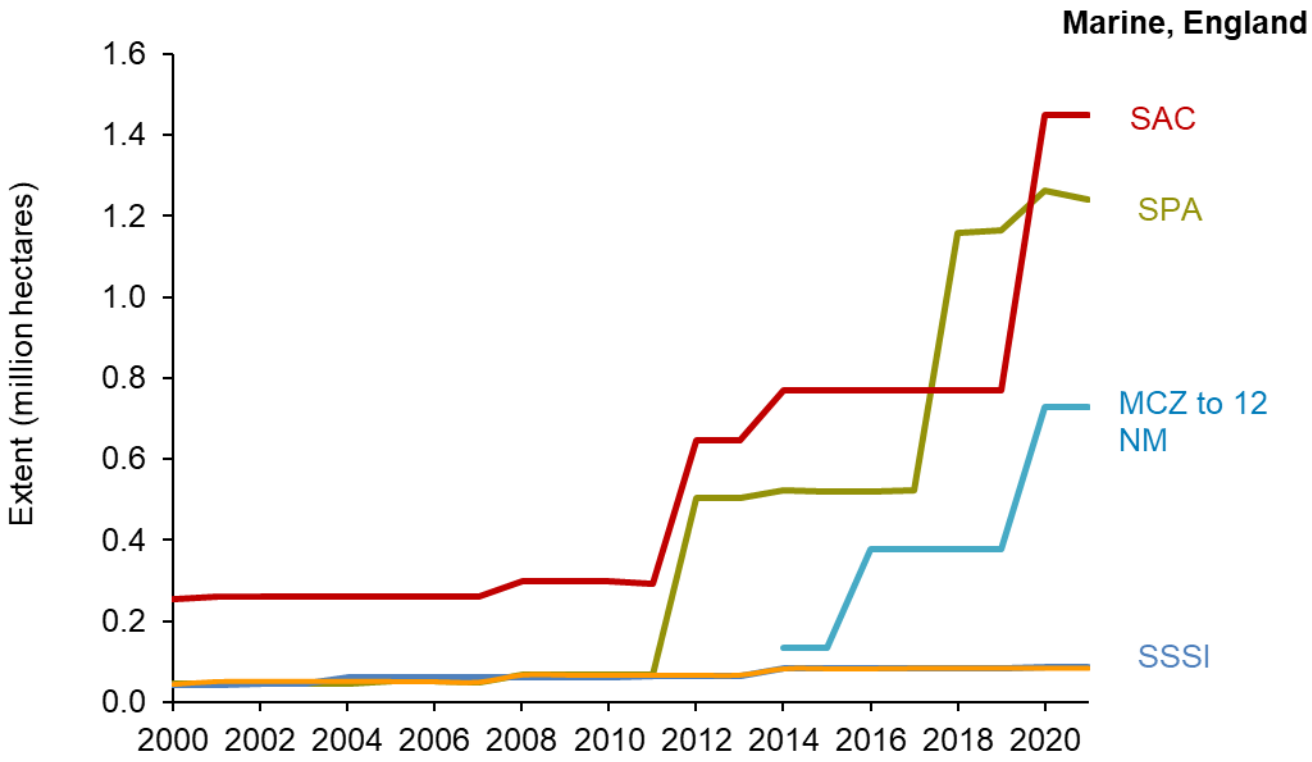


Notes:

1. The extent of protected sites is the cumulative area assessed in March of each year shown.
2. Terrestrial sites include land (terrestrial, freshwater and coastal areas) to mean low water.

Source: Natural England.

Figure 1.4: Extent of protected sites at sea in England, by designation, 2000 to 2021



Notes:

1. The extent of protected sites is the cumulative area assessed in March of each year shown.
2. Marine sites between mean low water and the 12 nautical mile limit are included; sites beyond 12 nautical miles, in UK waters, are excluded. These are included in the UK indicator on protected sites.

Source: Natural England.

SSSI Condition

Biodiversity 2020: A strategy for England's wildlife and ecosystem services includes a high-level outcome to achieve:

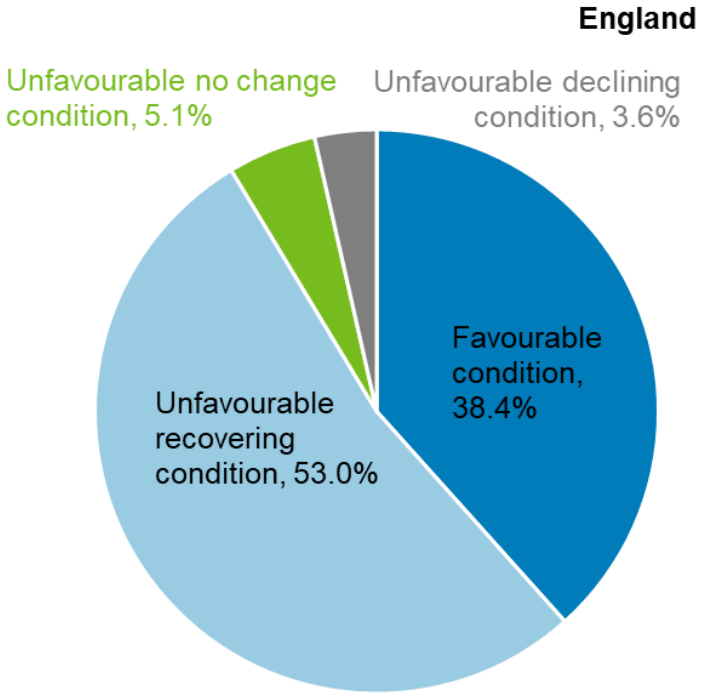
"… 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition by 2020."

This indicator focuses on the condition of SSSIs. The first part of the outcome on priority habitats is presented separately as part of indicator 2a 'Status of threatened habitats'.

Nationally important SSSIs are designated with the aim of conserving specific biological or geological features. The condition of these features is assessed on a rolling programme against agreed standards. 'Favourable' condition status indicates that the SSSI meets the agreed standards for the features of interest. 'Unfavourable recovering' condition status indicates that the SSSI fails to meet the standards but has appropriate management in place that will achieve those standards (sites with inappropriate or no suitable management are 'unfavourable').

The UK-wide Common Standards Monitoring programme is undertaken by the statutory conservation agencies to assess the effectiveness of management of the features for which protected areas have been designated. Favourable Condition Target(s) have been set for each site. The monitoring tests whether these targets have been met. Figure 1.5 below shows the detailed condition of SSSIs at the 31 March 2021. In total, 91.4% of sites were in favourable or unfavourable recovering condition, 5.1% were 'unfavourable no change' and 3.6% were in an unfavourable declining condition.

Figure 1.5: Condition of Sites of Special Scientific Interest (SSSI), March 2021



Source: Natural England.

Web links for further information

GOV.UK: Marine conservation zone designations in England

Joint Nature Conservation Committee: Nature Conservation Marine Protected areas

Joint Nature Conservation Committee: Common Standards Monitoring Programme

Joint Nature Conservation Committee: Common Standards Monitoring Guidance

Joint Nature Conservation Committee: Marine protected areas – interactive map

Natural England: SSSI condition statistics

Natural England: Site designations

Last updated: October 2021

Latest data available: March 2021