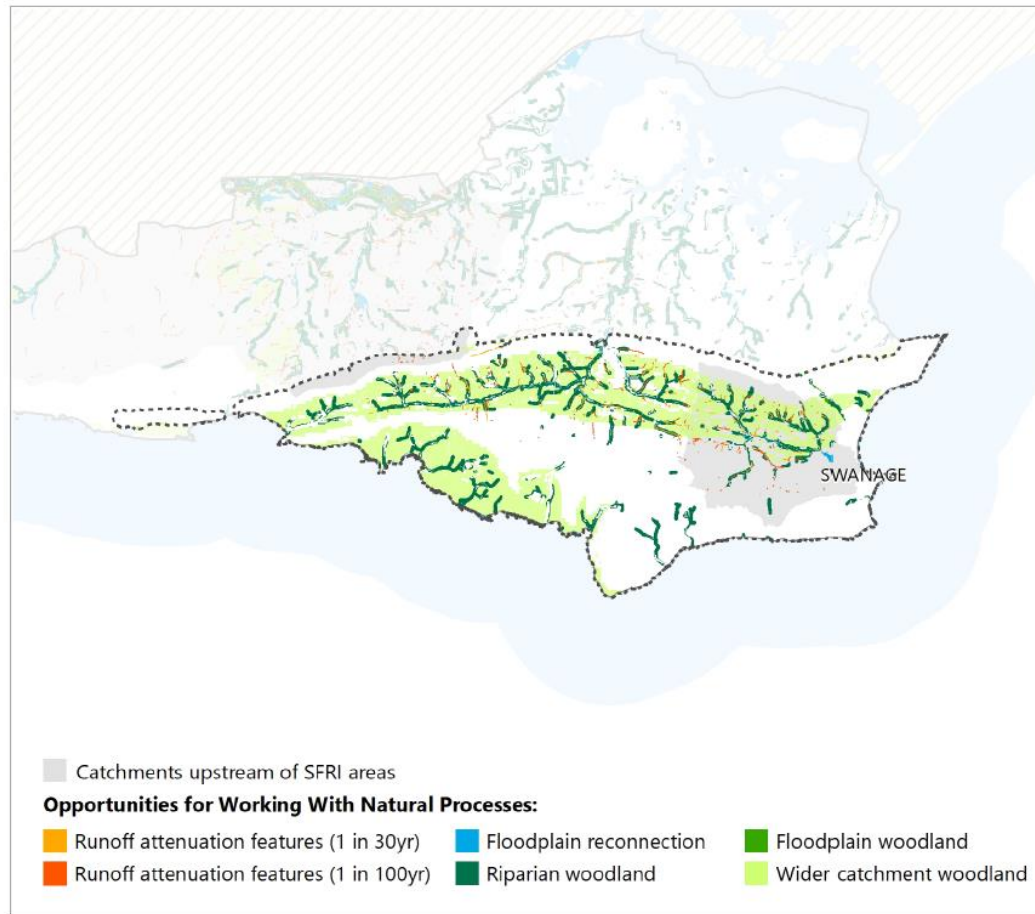


# Flood Protection

## 2. Areas for Investigation & Action

The Environment Agency have mapped potential opportunities for several types of **Natural Flood Management** (NFM - also known as 'Working With Natural Processes' to reduce flood and coastal erosion risk') across the country.



These include opportunities for different types of woodland planting, floodplain reconnection features like restored riverside wetlands and meadows, and runoff attenuation features which aim to slow pathways of water across the land like storage ponds or leaky barriers. A number of areas are also excluded from the woodland maps such as urban areas and existing woodland.

These potential opportunities are spread across the landscape. In the map, the catchments identified on the previous page are shown in grey to highlight areas where NFM could help to ease flood risk on vulnerable communities. However, it should be kept in mind that some of the vulnerable communities will be at risk from coastal flooding, which will not be affected by inland NFM measures. In addition, NFM is generally thought to have the most measurable impact in small catchments, so the impact of NFM may be limited for communities lying within a large and complex catchment.

### Data sources (more detail on page 54)

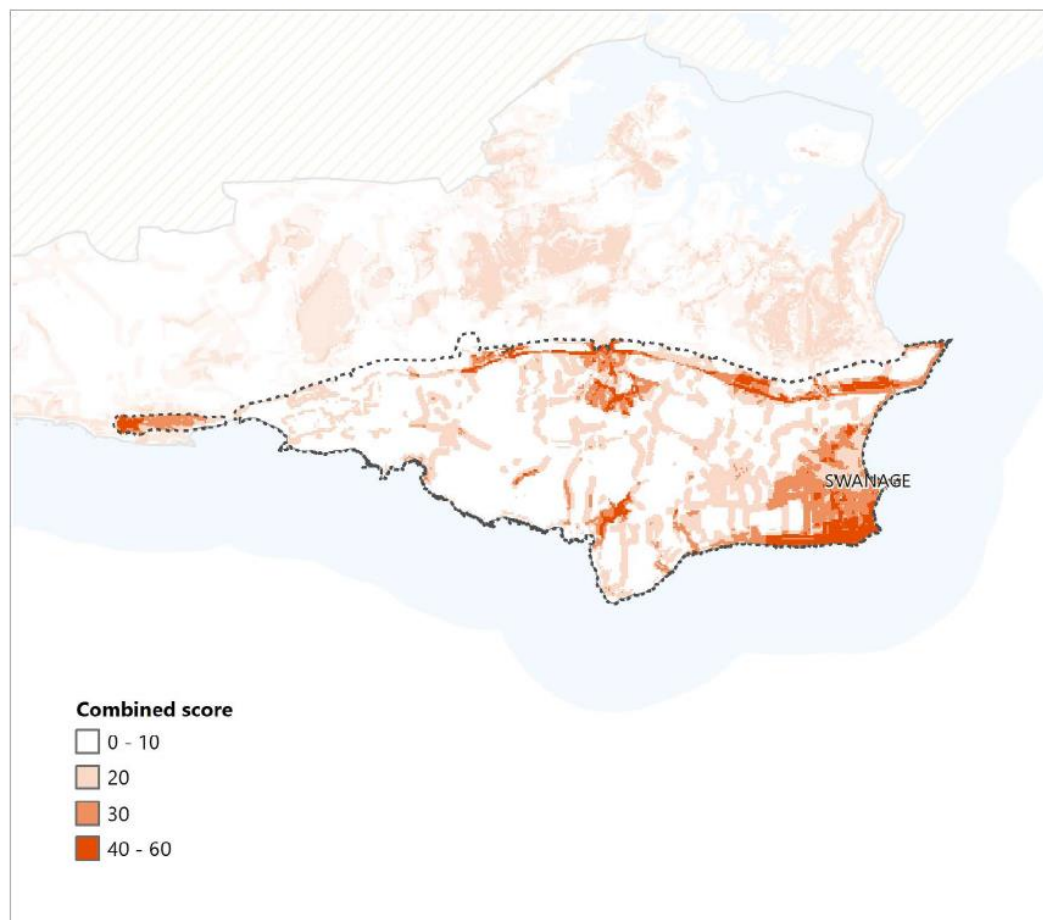
Dataset	Level	Res.	Date
EA Working with Natural Processes	N	●	●

Datasets used in map: OSV, AONB, OSBL, LCA, WFDWC, WWNP. See page 54 for full references.

# Wildfire Risk

## 2. Areas for Investigation & Action

Areas with potential for action to reduce the risk of wildfires are shown below, with darker shades representing areas to be targeted for investigation and action. The map combines a number of factors, shown to the right of the map, and the full scoring system is detailed in Appendix 2.



**Vulnerable neighbourhoods (with 500m buffer)**



This map shows neighbourhoods with average or higher vulnerability according to the Neighbourhood Flood Vulnerability Index. This is slightly different to the Social Flood Vulnerability Index used in the Flood Protection chapter, as it only considers community vulnerability, and not actual flood risk.

Areas of risk & description	Dataset	Level	Res.	Date
<b>Public Rights of Way</b>	Public Rights of Way	L	●	●
<b>Accessible Land</b>	Various datasets – see page 43	N	●	●
<b>Urban land</b>	Dorset habitat map	L	●	●
Above three risk factors all relate to public access. There is evidence from analysis of data from south Wales that wildfires are associated with public access, especially on or near the rural/urban interface, with over 90% of 'grassfires' recorded within 100m of a road or public right of way (PROW) and 99% within 500m [7].				
<b>High risk habitats</b>				
Wildfires cover the greatest area on moorland and heathland and, to a lesser extent, semi-natural grasslands.	Dorset habitat map – selected land covers	L	●	●
<b>Vulnerable neighbourhoods (see map above)</b>				
The factors in the neighbourhood flood vulnerability index are likely to also be relevant for wildfires, e.g. preparedness and community support.	Climate Just Neighbourhood Flood Vulnerability	N	●	●
<b>Sites of wildfires</b>				
See previous page – recent wildfire activity is a risk factor.	Urban Heaths Partnership incident recording	L	●	●

Datasets used in maps: OSV, AONB, OSBL, LCA, PROW, NT, NNR, CP, OSG, CROW, DHM, NFVI, UHP. See page 54 for full references.

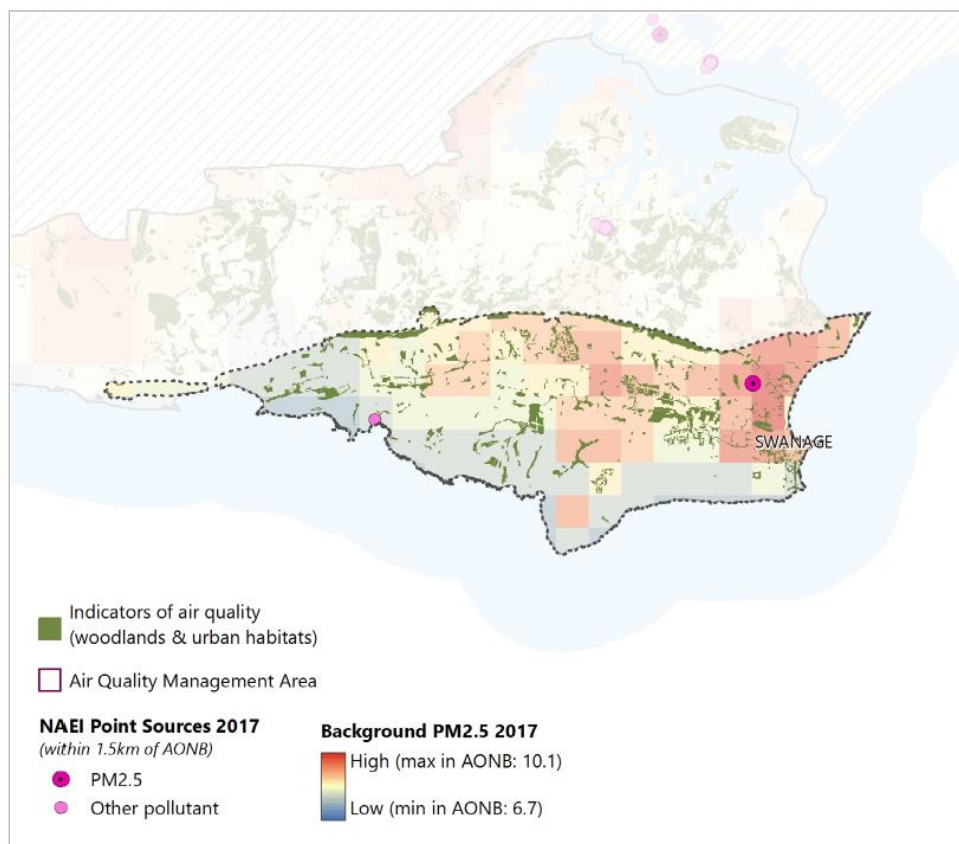


# Clean Air

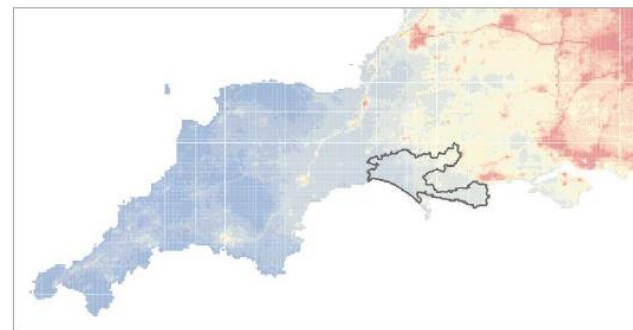
## 2. Areas for Investigation & Action

Air quality can be improved by either reducing emissions or by increasing the quantity and quality of natural assets which improve air quality. By comparing where there are high levels of air pollution and/or more large sources with areas lacking natural assets which contribute to clean air, we can identify areas where interventions will have the greatest impact.

The next page investigates a further factor to consider when planning interventions: the health of the population and therefore those who may be at most risk of the impacts of poor air quality.



Datasets used in maps: OSV, AONB, OSBL, LCA, DHM, AQMA, NAEI, BPM. See page 54 for full references.



### Background air quality – regional context

The map to the left shows the background air quality on a blue to red colour scale using data for the AONB. To provide a regional context for these values, above is the data for the south-west of England, using the same colours but with values from across a wider area. The levels within the AONB are in the mid range for the region.

### Data sources (more detail on page 54)

	Dataset	Level	Res.	Date
This page	Dorset habitat map – selected land covers (see page ... for more detail)	L	●	●
	Air Quality Management Areas	N	●	●
	NAEI Large Point Sources	N	●	●
Next page	Background PM2.5	N	●	●
	Local health indicators – COPD	N	●	●
	Local health indicators – Smoking	N	●	●
	Local health indicators – Respiratory diseases	N	●	●

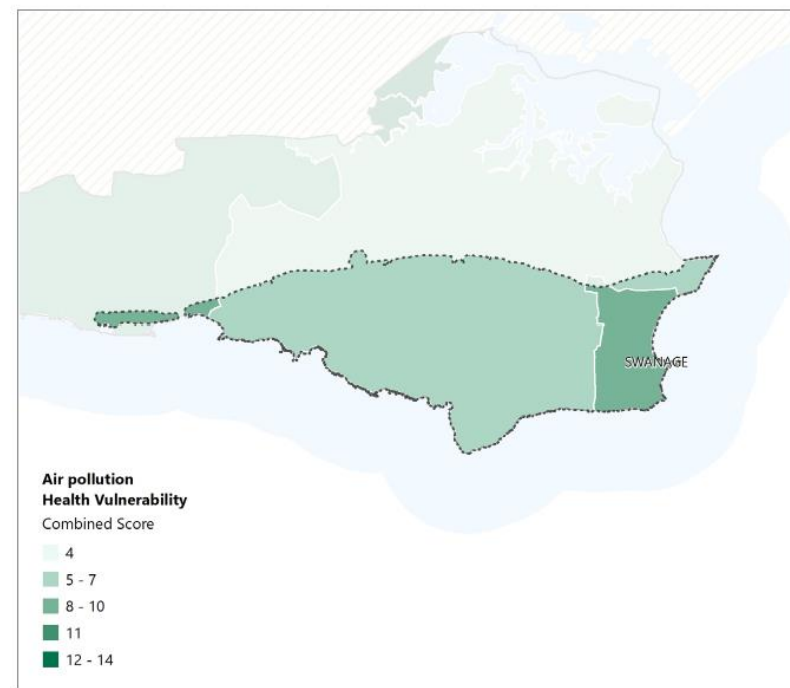
# Clean Air

## 2. Areas for Investigation & Action

A further consideration for the targeting of air quality improvement measures is the vulnerability of people to the health impacts of poor air quality. Many factors could be considered in this health vulnerability assessment, but in this assessment the following factors have been investigated:

- Those suffering health problems which may be caused or exacerbated by poor air quality – indicated using data on emergency hospital admissions for COPD and deaths from respiratory diseases
- Those who may be at greater risk due to lifestyle factors – indicated using data on smoking prevalence

These have then been scored on a 1-5 scale and combined by adding the 3 scores together. In each map, darker shades indicate poorer health according to the indicator.



Datasets used in maps: OSV, AONB, OSBL, LCA, PH3, PH4, PH5, MSA. See page 54 for full references.

### Emergency hospital admissions for chronic obstructive pulmonary disease

**Standardised Admission Ratio**  
National average: 100

- 28.3 - 39.7 (1)
- 39.7 - 47.5 (2)
- 47.5 - 58.7 (3)
- 58.7 - 81.3 (4)
- 81.3 - 168.8 (5)



### Deaths from respiratory diseases

**Standardised Mortality Ratio**  
National average: 100

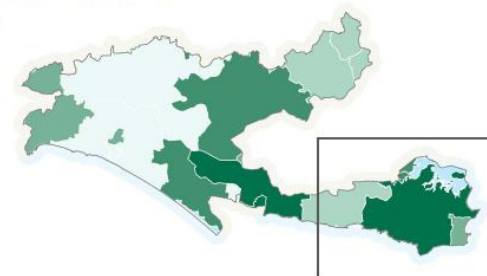
- 51.4 - 55 (1)
- 55 - 76.7 (2)
- 76.7 - 85.4 (3)
- 85.4 - 94.2 (4)
- 94.2 - 120.5 (5)



### Smoking prevalence at age 15

**% (modelled estimate)**  
National average: 5.4%  
National target: <3%

- 4.6 - 4.9 (1)
- 4.9 - 5.2 (2)
- 5.3 - 5.5 (3)
- 5.5 - 6.2 (4)
- 6.2 - 6.8 (5)

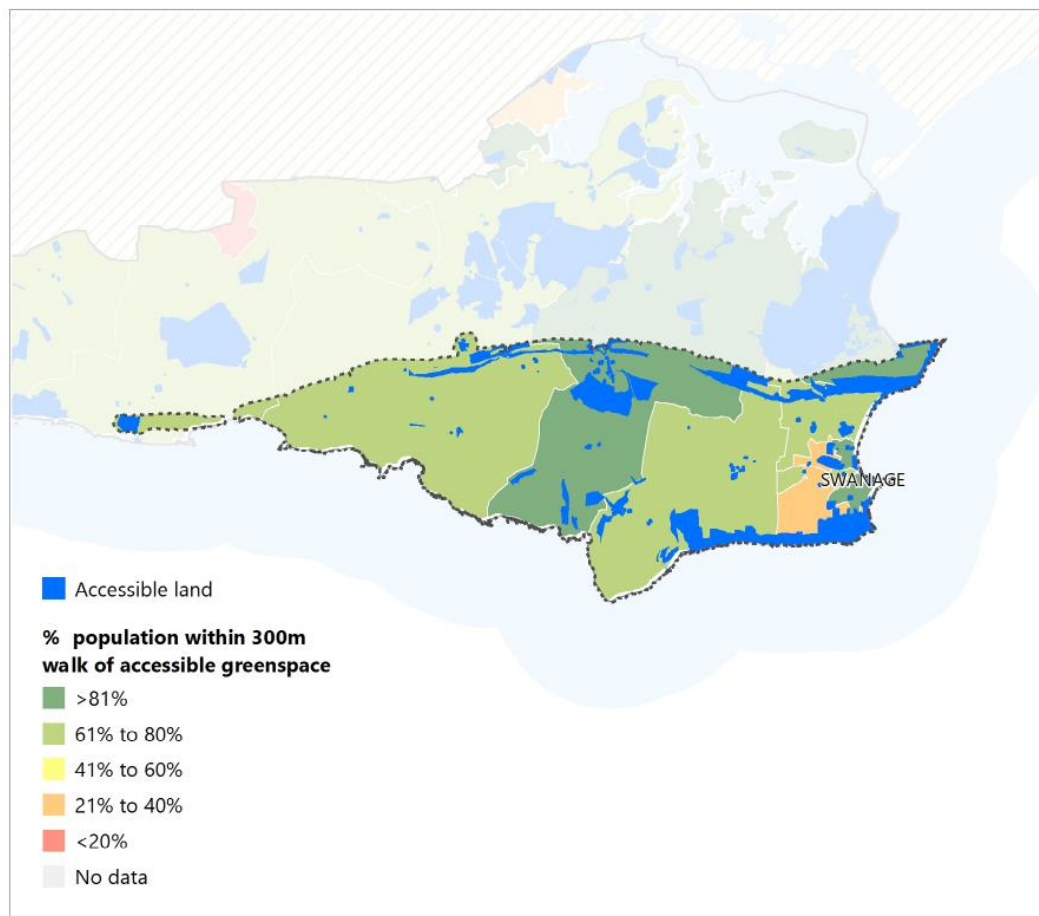


Data on this page shown by Middle Layer Super Output Areas, with colour grouping by quantile. Scores for the health variables are shown in brackets in each legend.

# Access

## 2. Areas for Investigation & Action

One way of identifying important areas for improving access to greenspace is to assess who already has access and where there may be gaps in access to greenspace. Access to greenspace has two key factors – the **availability of greenspace** with public access allowed, and the **ability for people to safely travel to these places**.



Datasets used in map: OSV, AONB, OSBL, LCA, PROW, NT, NNR, CP, OSG, CROW, WHO.  
See page 54 for full references.

A study has been undertaken by Public Health Dorset to model the proportion of the population across neighbourhoods in Dorset with a **walkable route to an accessible greenspace** of less than 300m. This is based on World Health Organisation advice that everyone should live within a 300m walk of a public green space.

Comparing the access model with areas of accessible greenspace could suggest opportunities for improving walking routes and/or transport links between areas with low access to greenspace, and areas with high provision of greenspace/access land.

*Access model data shown by Lower Super Output Areas*

### Data sources (more detail on page 54)

	Dataset	Level	Res.	Date
This page	Public Health Dorset WHO Access Model	L	●	●
	Access land – as previous page	N	●	●
Next page	Census data – General health	N	●	●
	Local health indicators – Children with excess weight	N	●	●
	Local health indicators – Healthy life expectancy for females	N	●	●

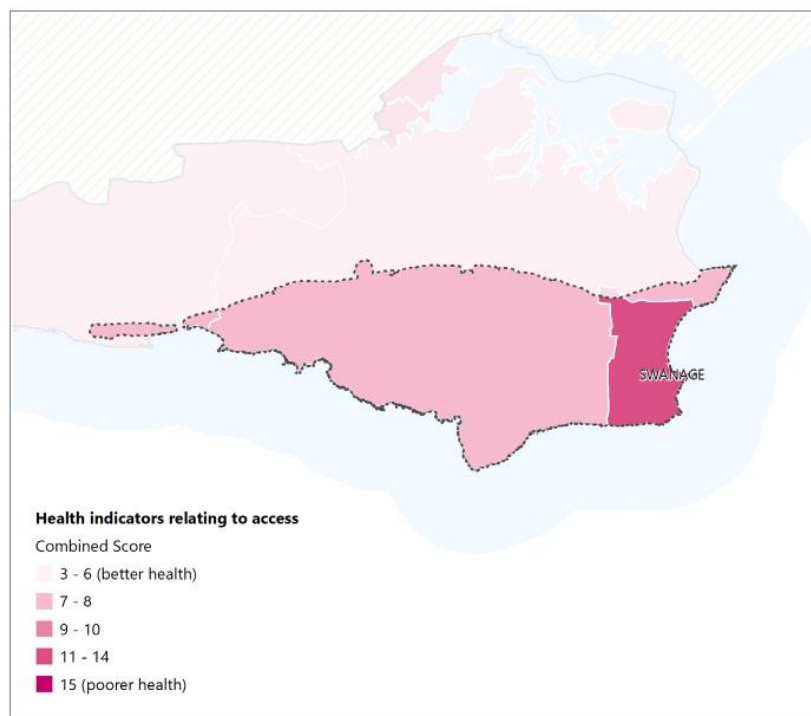


# Access

## 2. Areas for Investigation & Action

Public Health England have identified significant and growing evidence on the health benefits of access to good quality green spaces. The benefits include better self-rated health; lower overweight and obesity levels; improved mental health and wellbeing; and increased longevity<sup>[10]</sup>.

In order to take some of these factors into consideration, data on self-rated health, levels of children with excess weight and healthy life expectancy have been mapped for regions within the AONB. These have then been scored on a 1-5 scale and combined by adding the 3 scores together. In each map, darker shades indicate poorer health according to the indicator.



Datasets used in maps: OSV, AONB, OSBL, LCA, CEN, PH1, PH2, MSOA. See page 54 for full references.

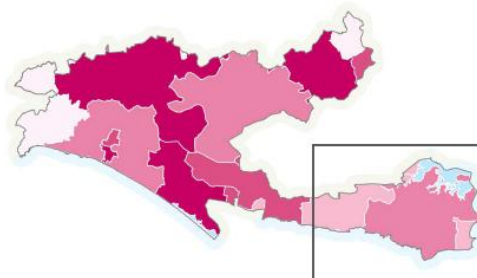
### General health - % self-rated as bad or very bad

- %
- 3.3 - 4.2% (1)
  - 4.2 - 4.7% (2)
  - 4.7 - 5.2% (3)
  - 5.2 - 5.7% (4)
  - 5.7 - 6.5% (5)



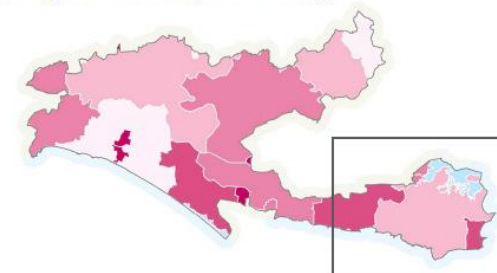
### Children with excess weight (year 6)

- %
- England average: 34.2%
- 21.3 - 25 (1)
  - 25.1 - 27.1 (2)
  - 27.1 - 28.3 (3)
  - 28.3 - 30.2 (4)
  - 30.2 - 36.8 (5)



### Healthy life expectancy for females (2009 - 2013)

- Years
- England average: 64.8
- 71 - 73 (1)
  - 69.9 - 71 (2)
  - 68.5 - 69.9 (3)
  - 66.7 - 68.5 (4)
  - 63.6 - 66.7 (5)

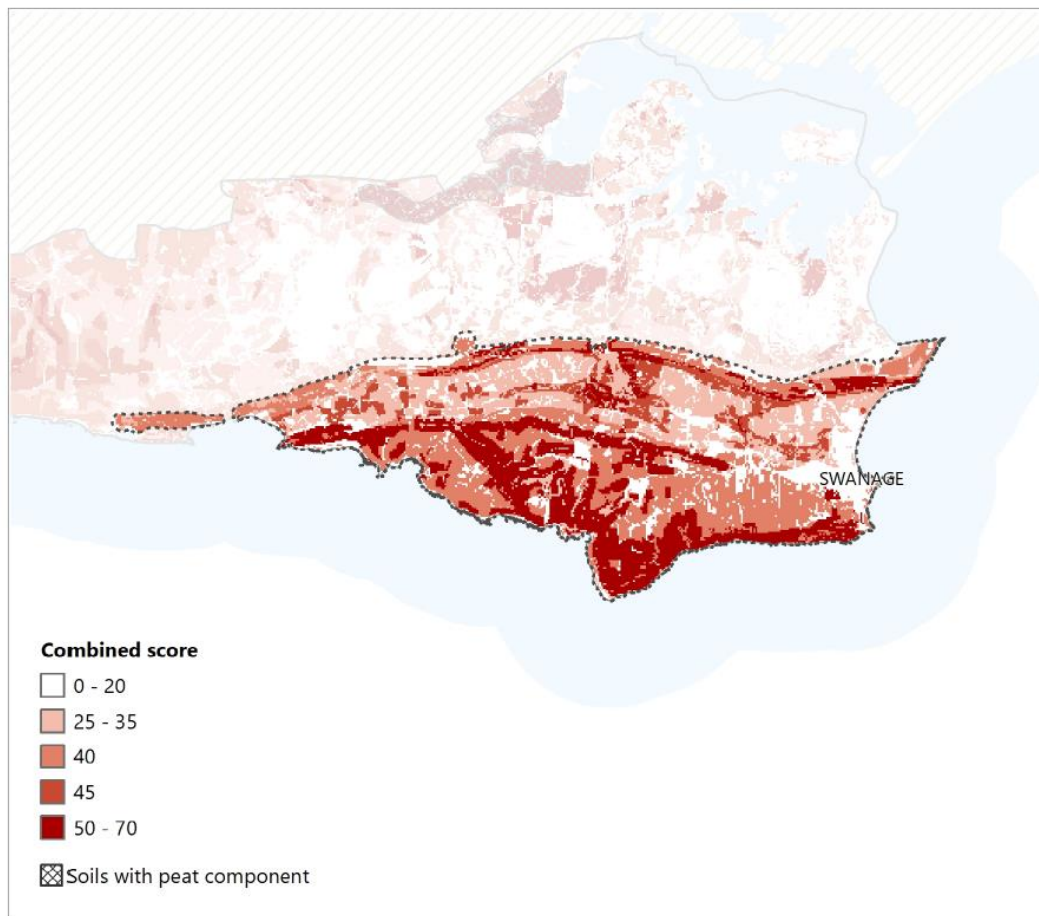


Data on this page shown by Middle Layer Super Output Areas, with colour grouping by quantile. Scores for the health variables are shown in brackets in each legend.

# Climate Regulation

## 2. Areas for Investigation & Action

Areas for further investigation with potential for action to improve carbon sequestration are shown below, with darker shades representing areas to be targeted for investigation and action. The map combines a number of identified factors which are possible to map. These are shown to the right of the map, and the full scoring system is detailed in Appendix 2.



Relevant factors & description	Dataset	Level	Res.	Date
<b>Soil type – sequestration capacity</b> Clay-based soils have greatest capacity to lock up organic material, whereas lighter sandy or loamy soils have lower capacity for increased sequestration. Peat soil may have limited potential for sequestration as it is at maximum capacity.	NATMAP soils	N	●	●
<b>Land use</b> Improvements in carbon sequestration can be achieved through permanent land use change along an arable > rotational cropping > temporary grassland > permanent pasture > woodland > wetland continuum.	Dorset habitat map	L	●	●
<b>Agricultural Land Classification</b> Conversion of high grade agricultural land to other uses is unlikely to be taken up by land managers and so measures to enhance sequestration should be targeted towards 'low grade' land.	Agricultural Land Classification	N	●	●
<b>Woodland/Wetland Restoration</b> As described above, woodlands and wetlands provide the best opportunity for carbon sequestration. The scores are based on the restoration potential analysis in the Thriving Plants and Wildlife section.	Woodland and Wetland Restoration Parcels (see pages 23 and 25)	Produced as part of this report		

Datasets used in map: OSV, AONB, OSBL, LCA, NAT, DHM, ALC, CSS, LHN, NEHN. See page 54 for full references. 51

# Next steps



Finish consultation with farming community



Develop Dorset AONB Nature Recovery Plan



Review lessons from the Test and Trial and feed this into the development of the Local Nature Recovery Strategy



Use to guide investment & actions



w: [dorsetaonb.org.uk](http://dorsetaonb.org.uk)  
e: [dorsetaonb@dorsetcouncil.gov.uk](mailto:dorsetaonb@dorsetcouncil.gov.uk)  
t: 01305 228246  
 [@dorsetaonb](https://twitter.com/dorsetaonb)



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