

# **Pembrokeshire Coast National Park**

## **Replacement Local Development Plan (2015-2031)**

Deposit Plan

Sustainability Appraisal (incorporating  
Strategic Environmental Assessment)

Scoping Report:

Appendix E – Baseline Information

March 2018

PEMBROKESHIRE COAST NATIONAL PARK

AUTHORITY

# Sustainability Appraisal of the Pembrokeshire Coast National Park replacement Local Development Plan

## Appendix E: Baseline information

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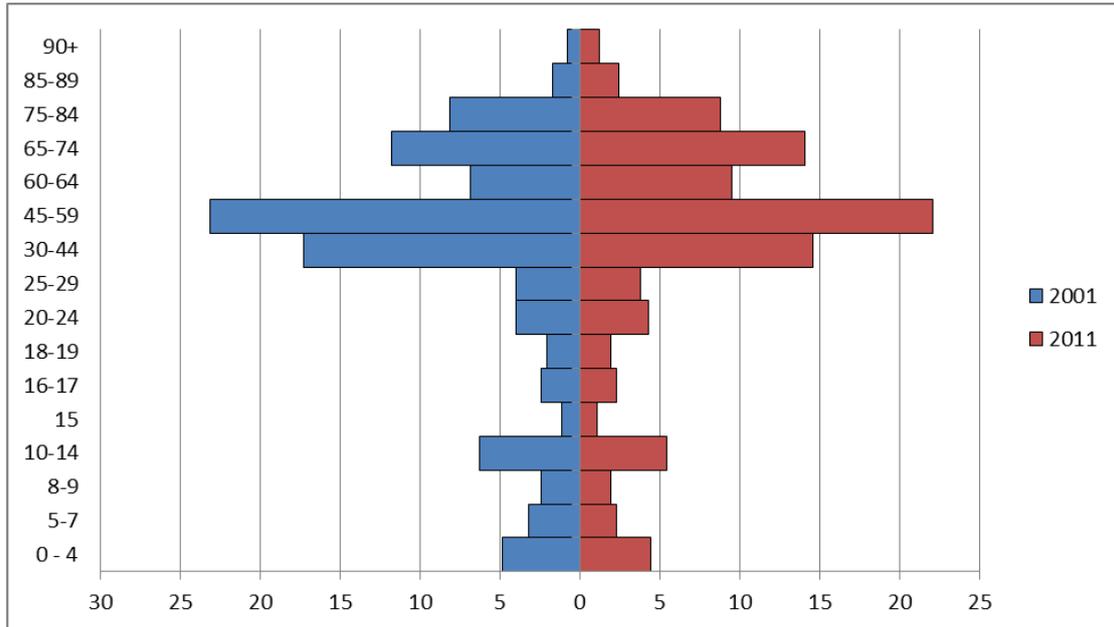
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## General & Population

### Total population and trends

The resident population of the National Park at the 2011 Census was found to be 22,644, this is a very small increase in the resident population of 2001 (22,542) The age structure of the Park's usual resident population by percentage of population in 2001 and 2011 is shown below.



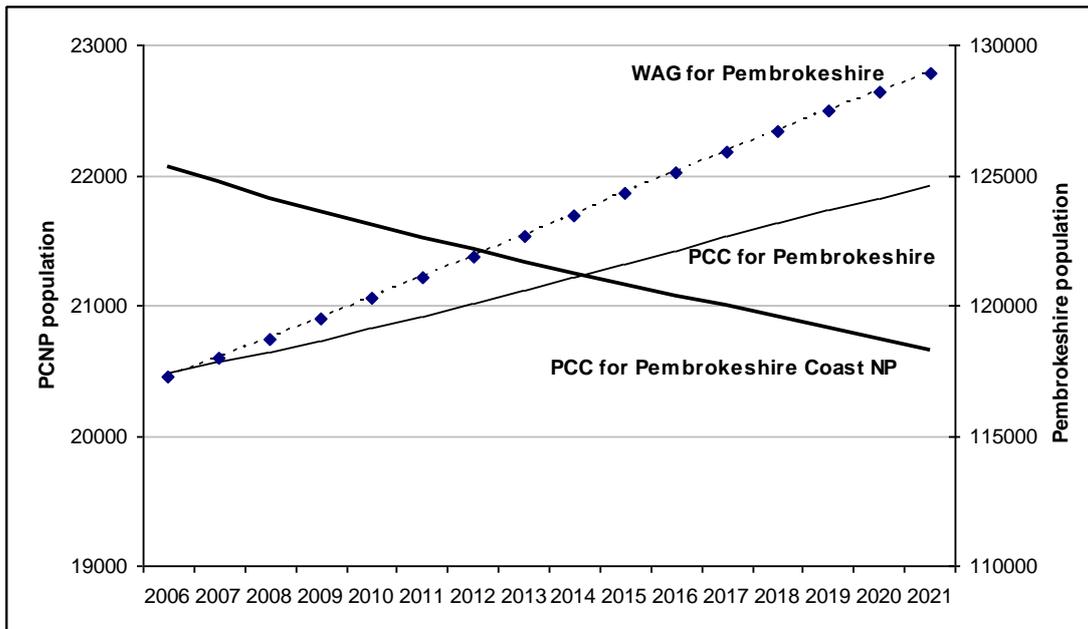
Data source: Census 2001/2011

Modelled estimates of population change since the Census have been produced for the National Park by the Office for National Statistics. Estimated population change for the National Park 2001-2006 is shown in the following chart, along with estimates for the whole of Pembrokeshire. The subsequent chart shows the estimated age structure in the National Park in 2006. Updated population and household projections based on the 2011 Census for the National Park are expected in late 2014/ early 2015.

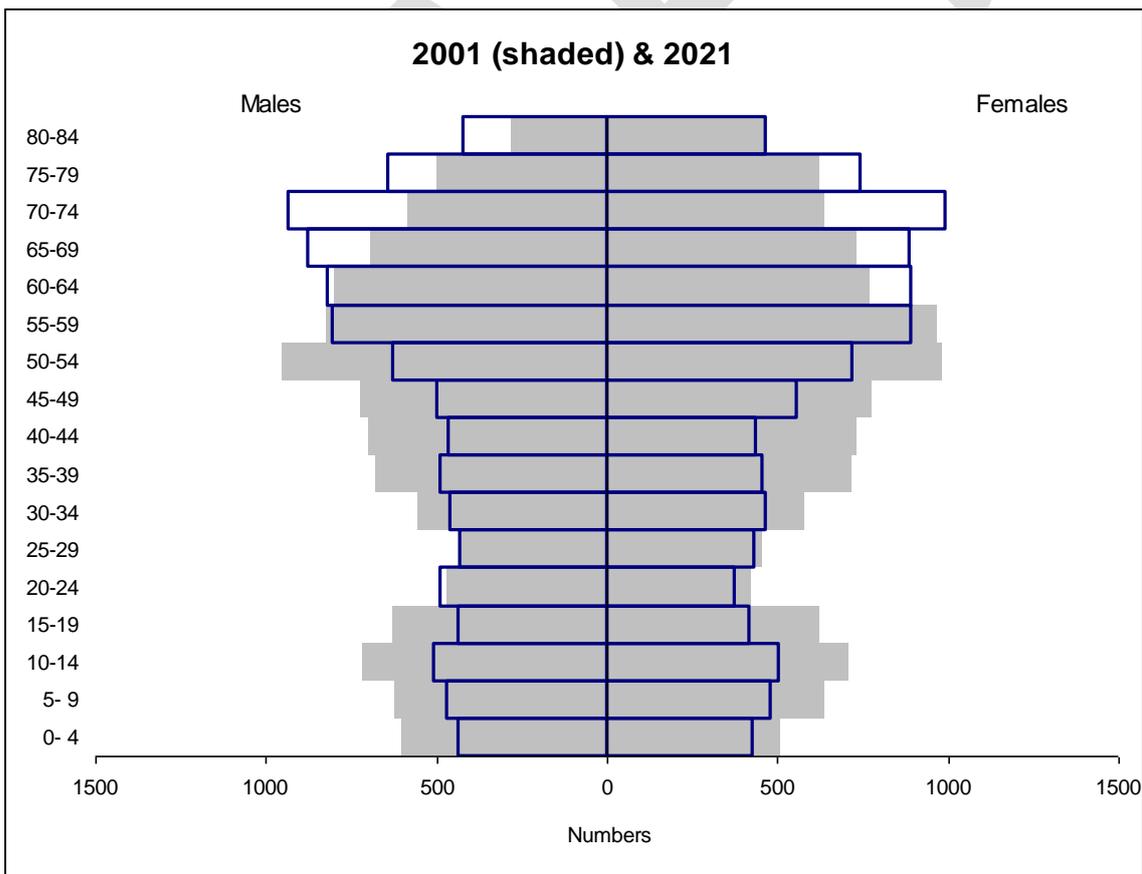
Population projections to 2021 were prepared for Pembrokeshire by the Welsh Assembly Government (WAG)<sup>1</sup> and Pembrokeshire County Council (PCC)<sup>2</sup>, and for the National Park by Pembrokeshire County Council. These are shown in the following chart.

<sup>1</sup> Welsh Assembly Government (2008) Local Authority Population Projections.  
<http://wales.gov.uk/topics/statistics/theme/population/pop-project/popprojla/?lang=en>

<sup>2</sup> Pembrokeshire County Council (2008) Population, Household and Labour Force Projections for the County of Pembrokeshire and Pembrokeshire Coast National Park.  
[http://www.pembrokeshire.gov.uk/objview.asp?Language=&object\\_id=4136](http://www.pembrokeshire.gov.uk/objview.asp?Language=&object_id=4136)

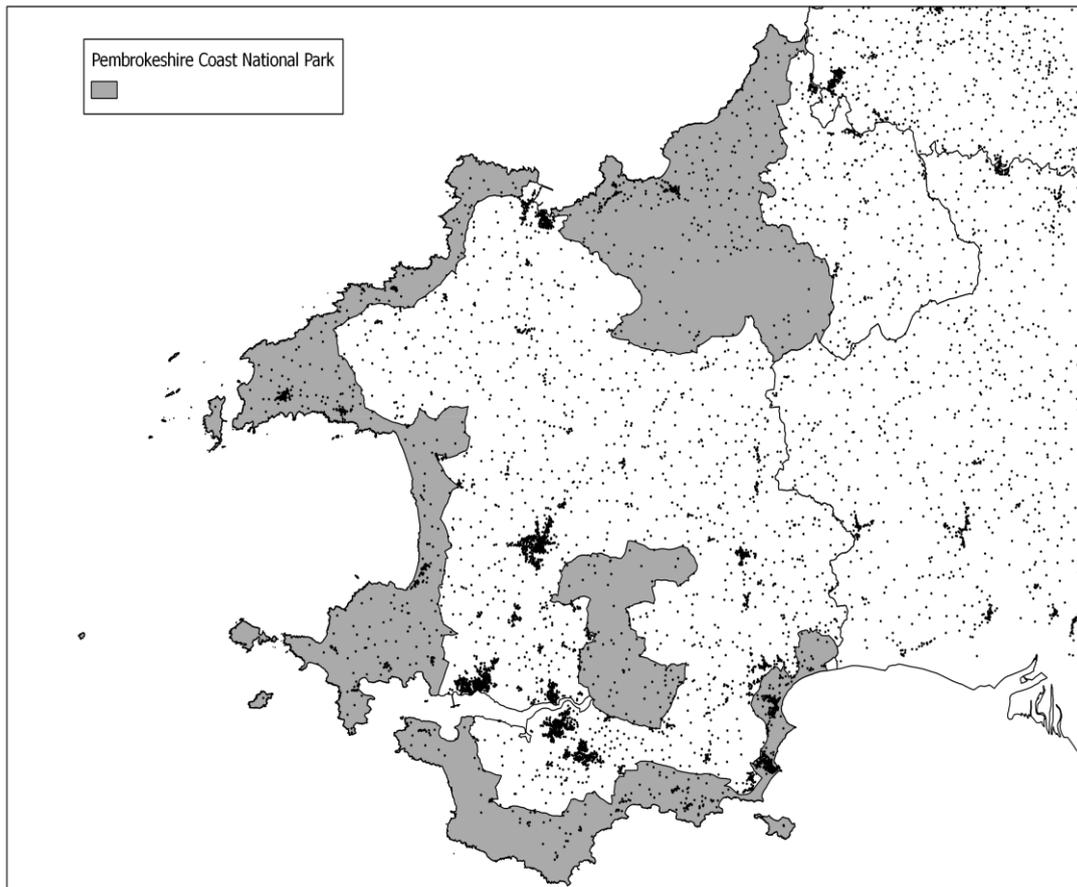


The projected age distribution for the Pembrokeshire Coast National Park is shown in the following chart.



## Population distribution

The following map shows the settlement pattern of the National Park and surrounding areas of Pembrokeshire, Carmarthenshire and Ceredigion. Each dot indicates an address in the Ordnance Survey's Address Point dataset<sup>3</sup> for March 2014.



The distribution of points on this map suggests that even outside towns and villages the National Park is well populated with only a few significant unpopulated areas.

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<sup>3</sup> © Crown Copyright. Pembrokeshire Coast National Park Authority - copyright licence/account number 100022534

## Migration

Migration data derived from Health Authority records indicates a net migration inflow to Pembrokeshire from the rest of the UK in 2003/4 of 510 people, this level of in migration is fairly consistent for the period of 2003 – 2007, with 2008 showing a significantly higher rate. 2008/9 – 2010/2011 show significantly lower rates with negative Net flow in 2008/9. Between 2008/9 and 2015-16 there is no return to consistent rates of net flow, like those observed, between 2003-2007 ranging from 30-730 in 2015/16.

		2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Wales	Inflow	67050	62170	61870	62770	59610	55900	56530	57120	59230	55010	57480
	Outflow	53850	55220	55780	55880	54820	55570	53990	54590	54750	55680	57320
	Net	13200	6940	6100	6900	4790	330	2540	2530	4480	-670	170
Pembrokeshire	Inflow	4250	4030	4110	4270	4320	3760	3860	3590	4080	3930	4090
	Outflow	3740	3540	3550	3720	3460	3860	3700	3560	3690	3630	3630
	Net	510	480	560	560	860	-110	160	30	390	300	460

		2014-2015	2015-2016
Wales	Inflow	57520	58660
	Outflow	56680	55280
	Net	840	3380
Pembrokeshire	Inflow	3720	4410
	Outflow	3680	3680
	Net	40	730

[StatsWales: 2017](#)

Bespoke data showing Migration in and out of the National park has been prepared from the National Patient Register by the Office for National Statistics for Pembrokeshire County Council. This data breaks migration down to that between the National Park and the rest of Pembrokeshire, and that between the National Park and England & Wales outside Pembrokeshire. The following table shows total migration between July 2001 and June 2006.

Age	Inflow from rest of Pembrokeshire	Inflow from rest of England & Wales	Outflow to rest of Pembrokeshire	Outflow to rest of England & Wales	Balance
All ages	2,335	3,770	3,265	2,690	145
0-4	155	165	210	80	30
5-9	140	205	195	95	55
10-14	140	220	190	125	40
15-19	165	160	235	445	-355
20-24	190	420	235	460	-85
25-29	165	325	235	290	-30
30-34	210	275	305	210	-30

35-39	210	310	255	130	135
40-44	160	275	235	120	85
45-49	140	245	190	120	70
50-54	140	265	195	105	100
55-59	150	315	190	120	155
60-64	100	240	155	85	100
65-69	60	170	100	80	50
70-74	45	45	80	60	-50
75+	165	140	260	165	-125

**Data source: Office for National Statistics**

As can be seen from the table above in-migration to the National Park is predominantly from England & Wales outside Pembrokeshire, and this is true for most age groups. However there is a slight dominance in out-migration from the National Park in migration to the rest of Pembrokeshire. Moreover this migration shows differences between age groups, out-migration in the 15 to 30 age group is predominantly to England & Wales outside Pembrokeshire, whilst that for over 30s is predominantly to the rest of Pembrokeshire. It is possible that, whilst out migration of the under 30s is motivated by educational, employment or cultural opportunities more available outside Pembrokeshire, out migration of the over thirties is motivated by difficulty in accessing appropriate housing within the National Park.

Migration data is also gathered at National Censuses. The following table shows net migration (excluding international migration) by for the Wards within or intersecting the Pembrokeshire Coast National Park in the year up to the Census in 2001.

WardName	Net migration April 2000 to April 2001 as a percentage of April 2001 population		
	All ages	16-24 year olds	55-74 year olds
Manorbier	4.55	-0.66	4.41
Newport	4.07	10.71	-0.63
Burton	2.89	-13.16	0.55
Tenby: South	2.48	12.26	0.16
Carew	2.39	6.74	2.56
Fishguard North East	2.28	-6.00	2.38
Saundersfoot	2.15	4.17	1.16
Camrose	1.88	1.87	0.58
The Havens	1.87	0.00	4.23
East Williamston	1.75	6.67	1.04
Llangwm	1.72	-16.33	1.21
St. David's	1.57	-4.00	1.30
Tenby: North	1.51	-4.44	4.88
Crymych	1.50	-1.98	0.77
Merlin's Bridge	0.92	6.30	-0.28
Maenclochog	0.77	7.02	-1.32
Scleddau	0.59	-0.76	1.01

WardName	Net migration April 2000 to April 2001 as a percentage of April 2001 population		
	All ages	16-24 year olds	55-74 year olds
Amroth	0.48	-6.14	4.36
Llanrhian	0.41	-5.38	4.56
Letterston	0.05	-3.43	-0.75
Rudbaxton	-0.43	-7.26	-0.70
Lamphey	-0.51	-5.51	-1.38
St. Ishmael's	-0.57	-13.24	-1.84
Dinas Cross	-0.98	-10.22	-0.71
St. Dogmaels	-1.08	-12.05	1.92
Penally	-1.20	3.13	-0.21
Hundleton	-1.64	-9.29	-1.55
Goodwick	-2.96	-10.12	1.22
Martletwy	-3.58	-17.82	-6.76
Solva	-4.07	-16.67	0.00

**Data source: Census 2001 (An update to this based on Census 2011 data will be made once the data is made available)**

There were 217 National Insurance registrations from non-UK nationals resident in Pembrokeshire in 2012/13 (Source: Department for Work and Pensions<sup>4</sup>)

Both principal sources of migration data suffer some weaknesses, the health authority data published annually by the NAW are limited to the geographic level of UAs and rounded to the nearest 100 individuals (unless a bespoke data request is made to ONS). There is also concern that migrants do not always register immediately with the Health Authority, and the effects of this will not be the same across all age groups. The Census data are more precise, and probably more accurate, but only offer a sample of one year's migration out of ten. Also the Census cannot give information on international migration out of an area of the UK. Given the belief that migration is a factor in many of the issues of concern in the National Park, better migration statistics are desirable.

## Housing

### Housing stock

Permanently occupied housing stock by tenure in the PCNP at the 2011 Census is shown in the following table.

All households	Owner occupied (with or without mortgage)	Shared ownership (Pays part rent and part mortgage)	Rented from Council	Rented from Housing Association	Rented privately or other types of renting
10,277	7,323	33	845	328	1,467

<sup>4</sup> <https://www.gov.uk/government/publications/non-uk-nationals-registering-for-a-national-insurance-number-and-claiming-dwp-working-age-benefits>

**Source: 2011 Census**

The following table summarises the composition of households resident in the National park at the 2011 Census

All households	One person households	Family with no children	Family with children	Other household without children	Other household with children
10,277	3,386	3,329	2,985	396	181

**Source: 2011 Census**

**Completions of market and affordable housing**

Affordability of housing is a key issue for the National Park, with market house prices significantly higher than those in the wider county. The number of completions of affordable housing units (predominantly social rented) has been low; the following table shows the completions of market and affordable housing for comparison.

Year	Overall Completions	Affordable units
2007 – 2008	106	0
2008 – 2009	80	14
2009 – 2010	39	7
2010 – 2011	26	0
2011 – 2012	26	0
2012 - 2013	35	0
2013 – 2014	30	3
2014 – 2015		
<b>Total</b>	<b>312</b>	<b>24 (7.7%)</b>

**Data source: PCNPA land availability monitoring**

**Commitments of market/affordable housing**

Commitments to affordable housing (permission and construction) have also been low. The following table shows the current commitment to the construction of affordable and market housing in the National Park.

Sites with permission (approved since September 2010)	Sites under construction	Units under construction (2014-2015)	Affordable units under construction (2014-2015)
21	21	144	7 (4.86%)

**Data source: PCNPA land availability monitoring**

## **Housing need**

Pembrokeshire County Council Housing Department maintains the waiting list for social housing for the County; from this the Local Housing Market Assessment (LHMA) is prepared. The most recent LHMA for 2014-2019 indicates the following need for the County by number of bedrooms per year:

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Tenure	1 Bed	2 Bed	3 Bed	4 bed	5 bed	6 bed	Total per annum
Affordable Rent	1170.6	200.1	4.1	61.2	13.9	0.5	1450.5
Low Cost Home Ownership	284.2	0.0	0.0	2.5	2.0	0.0	288.7
						<b>Grand Total</b>	1739.2

[Source: Pembrokeshire Local Housing Market Assessment 2014 - 2019](#)

### Housing Need in the National Park

Taking the total housing need from the LHMA for each of the Community Council Areas within the National Park, and applying a proportionate split to those that fall partially within the National Park by population distribution, the total need for affordable housing within the National Park each year from 2014 to 2019 is estimated to be ~371 units (not taking into account existing provision/supply).

### Second and holiday homes

At the 2011 Census the Pembrokeshire Coast National Park has one of the highest percentages of households with “no usual resident” in England & Wales. This is indicative of second residences or holiday homes. The following table shows numbers of households with no usual resident in the National Park, Pembrokeshire and Wales.

	All Household spaces	Number second/holiday homes	Percent second/holiday homes
<b>PCNP</b>	14,207	3,937	27.7%
<b>Pembrokeshire</b>	60,668	7,590	12.5%
<b>Wales</b>	1,383,814	82,845	6%

Data source: 2011 Census

If anything second and holiday home use of newly built housing is higher as indicated occupancy surveys of housing completed between 1991 and 2004 summarised in the following table.

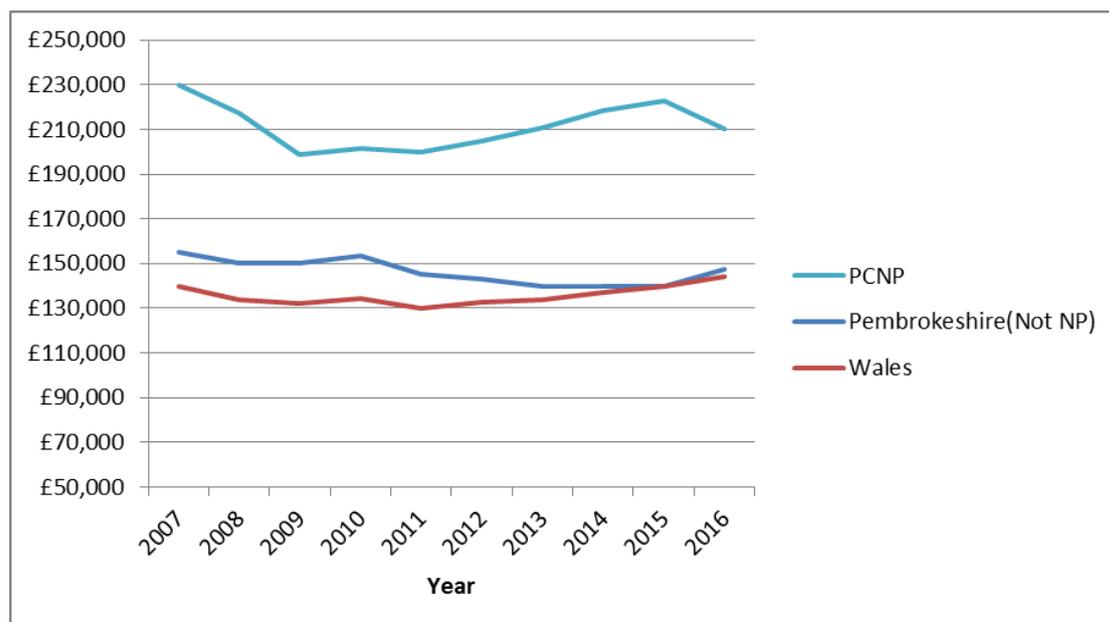
Use	Completions between 1991 and 2004 (95% CI $\pm$ 3.5%)	Completions between 2001 and 2004 (95% CI $\pm$ 7.9%)
Main residence	81%	75%
Second home	10%	14%
Second home also rented as a holiday let	4%	3%
Holiday let	5%	8%

**Data source: An occupancy survey of dwellings completed in the Pembrokeshire Coast National Park between June 2001 and September 2004 and Pembrokeshire Coast National Park Residential Occupancy Survey, June 2001, available from PCNPA**

### House prices

House prices in the National Park have increased sharply since 2000, and are consistently higher than those for Pembrokeshire as a whole and Wales. The following chart shows the change in median price paid for all types of housing in the National Park and comparators.

A more detailed analysis of the changes in house prices is available from the Pembrokeshire Coast National Park Authority.



**Median prices for all types of housing 2007 to 2016 calendar years for Pembrokeshire Coast National Park, the area of Pembrokeshire outside of the National Park and the whole of Wales.**  
[\(Data Source: Land Registry Price Paid\)](#)

### Health

The following table illustrates estimated life expectancies from birth in Pembrokeshire compared to the national average. Both in 2003 and in 2011 (the latest data) Pembrokeshire compares favourably with the rest of Wales, with marginally higher life expectancies for women in both years and male life expectancies equal to the national average.

	Pembrokeshire		Wales	
	2003	2011	2003	2011
Male	76.1	78.8(+2.7)	75.81	78.0(+2.19)
Female	80.5	82.7(+2.2)	80.31	82.2(+1.89)

(Data source: Office for National Statistics).

Generally the health of people in Pembrokeshire is similar to that for Wales as a whole. The Welsh Health Survey Local Authority Reports give the rates of selected health issues in populations. The following table shows the percentage of people under treatment for selected conditions in Pembrokeshire and Wales. The figures have been adjusted to account for the differing age profiles of the two areas. It should be noted that only the difference in the rate of treatment for mental illness can be considered statistically significant.

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Condition	Pembrokeshire				Wales			
	2003/05	2008/09	2011/12	2012/13	2003/05	2008/09	2011/12	2012/13
High Blood Pressure	18	19	19	22	18	20	20	20
Heart Condition	10	9	7	9	10	9	9	9
Asthma	10				10			
Respiratory Illness	13	13	12	12	14	13	14	14
Mental Illness	7	8	9	9	9	10	11	12
Limiting Long-term Illness	25	29	33	36	28	27	34	33
Over-weight or Obese	56	63	56	56	54	57	58	59

[Source: Welsh Government 2013](#)

An important role of National Parks is to provide opportunities for outdoor recreation and exercise, as a result of this National parks can make a significant contribution to public health. The literature<sup>5</sup> suggests that there are 5 key ways in which exposure to the natural environment is beneficial to human health. These are:

- Enhanced personal and social communication skills.
- Increased physical health.
- Enhanced mental and spiritual health.
- Enhanced spiritual, sensory, and aesthetic awareness.
- Ability to assert personal control and increased sensitivity to one's own well-being.

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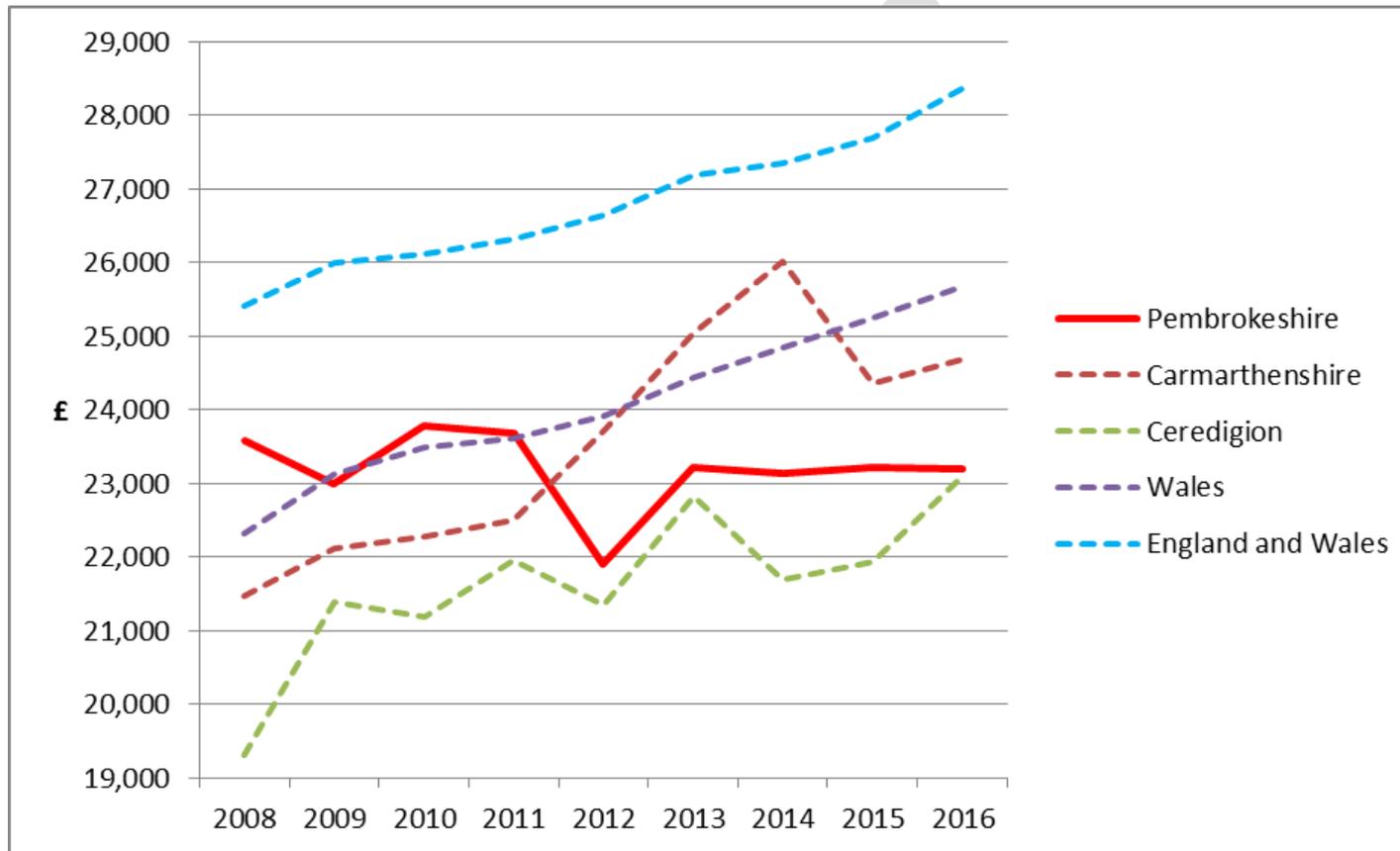
<sup>5</sup> Literature review conducted for OPENspace: the research centre for inclusive access to outdoor environments. Morris N. (2003) *Health, Well-Being and Open Space Literature Review* (available at [www.openspace.eca.ac.uk/rf/healthwellbeing.rtf](http://www.openspace.eca.ac.uk/rf/healthwellbeing.rtf), accessed 16 February 2007)

### Income & Employment

	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Pembrokeshire</b>	23,572	22,987	23,786	23,671	21,911	23,208	23,141	23,220	23,192
<b>Carmarthenshire</b>	21,464	22,118	22,276	22,507	23,712	25,045	26,015	24,354	24,683
<b>Ceredigion</b>	19,313	21,387	21,181	21,951	21,354	22,822	21,698	21,937	23,082
<b>Wales</b>	22,324	23,124	23,490	23,606	23,918	24,427	24,848	25,254	25,667
<b>England and Wales</b>	25,397	26,000	26,113	26,307	26,643	27,189	27,346	27,693	28,353

**Median gross annual earnings for full-time workers by residence (NOMIS 2017)**

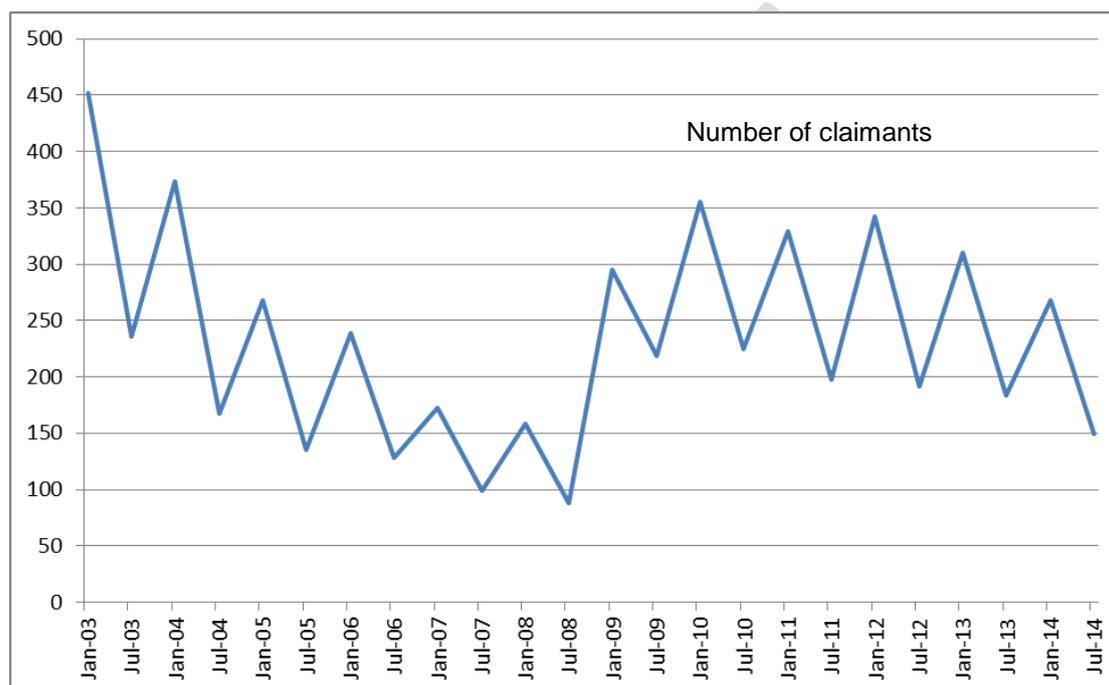
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Median gross annual earnings for full-time workers by residence (NOMIS 2017)

## Unemployment rates

Unemployment rates in the National Park fell significantly between 2003 and 2008, continuing a 10 year trend for reduction, but with wide degree of seasonal variation. The economic crisis in recent years has caused the unemployment rates to rise to levels roughly equivalent with 2003 in 2009. However, recent data (2009-2014) indicates that unemployment levels in the National Park are beginning to decline again. The chart below shows the number of claimants in the 1991 frozen Wards where over half of the population are resident in the National Park (as indicated by residential address point)<sup>6</sup>. Data are presented for January and July and the years 2003 to 2014. 'Claimants' are people claiming Jobseekers Allowance (JSA) and National Insurance credits at Jobcentre Plus local offices. This is not an official measure of unemployment, but is the only indicative statistic available for areas smaller than Local Authorities.



Data source: Office for National Statistics (Nomis)

## Employment rates

Though unemployment rates are declining and favourable in comparison with other parts of the UK, the rates of employment are also low in some areas in and around the National Park. The number of jobs per resident of working age was 0.79 for the UK as a whole in 2013. The Haverfordwest Travel to Work Area<sup>7</sup> (TTWA) compares well to this at 0.82 jobs per resident, but other TTWAs in the National Park area fare less well - 0.71 for Cardigan, 0.7 for Pembroke & Tenby, and 0.63 for Fishguard & St David's. The Office for National Statistics will be updating the Travel to Work Areas using commuting flow data from the 2011 Census, it is estimated that this update will be available in 2016. This section of the baseline will be updated with this new data once it becomes available.

<sup>6</sup> 1991 frozen Wards identified as having more than half their population in the National Park are Dinas Cross, Lamphey, Manorbier, Newport, Saundersfoot, Solva, St. David's, St. Ishmael's, Stackpole, Tenby, and The Havens.

<sup>7</sup> Travel-to-Work Areas (TTWAs) are approximations to self-contained labour markets based on commuting to work patterns.

## Industries of employment

The following table shows the percentage of people aged 16-74 in employment in each industry of employment in the National Park with figures for Pembrokeshire as a whole and Wales for comparison.

Industry	Pembrokeshire Coast National Park	Pembrokeshire	Wales
Agriculture, forestry and fishing	6.2	4.7	1.7
Mining and quarrying	0.5	0.5	0.2
Manufacturing	6.5	7.6	10.5
Electricity, gas, steam and air conditioning supply	0.5	0.7	0.8
Water supply; sewerage, waste management and remediation activities	0.4	0.7	0.9
Construction	9.5	10.7	8.2
Wholesale and retail trade; repair of motor vehicles and motor cycles	13.5	15.7	15.6
Transport and storage	3.3	4	3.9
Accommodation and food service activities	13.9	8.7	6.2
Information and communication	1.5	1.2	2.3
Financial and insurance activities	1.2	1.3	3.1
Real estate activities	1.3	1.2	1.2
Professional, scientific and technical activities	4.8	4.1	4.3
Administrative and support service activities	4.1	3.6	4
Public administration and defence; compulsory social security	5.5	9.3	7.9
Education	9.7	7.4	10.1
Human health and social work activities	11.4	13.4	14.5
Other	6.1	5.2	4.5

**Data source: 2011 Census**

## Economy

### Business

Pembrokeshire Coast National Park has a high rate of self-employment, 19% of 16-74 year olds at the 2011 Census (Wales, 8.6%).

Compared to Wales as a whole, businesses in Pembrokeshire tend to be very small, as evidenced by the relatively high proportion of businesses operating in Pembrokeshire with fewer than ten employees across their whole operation.

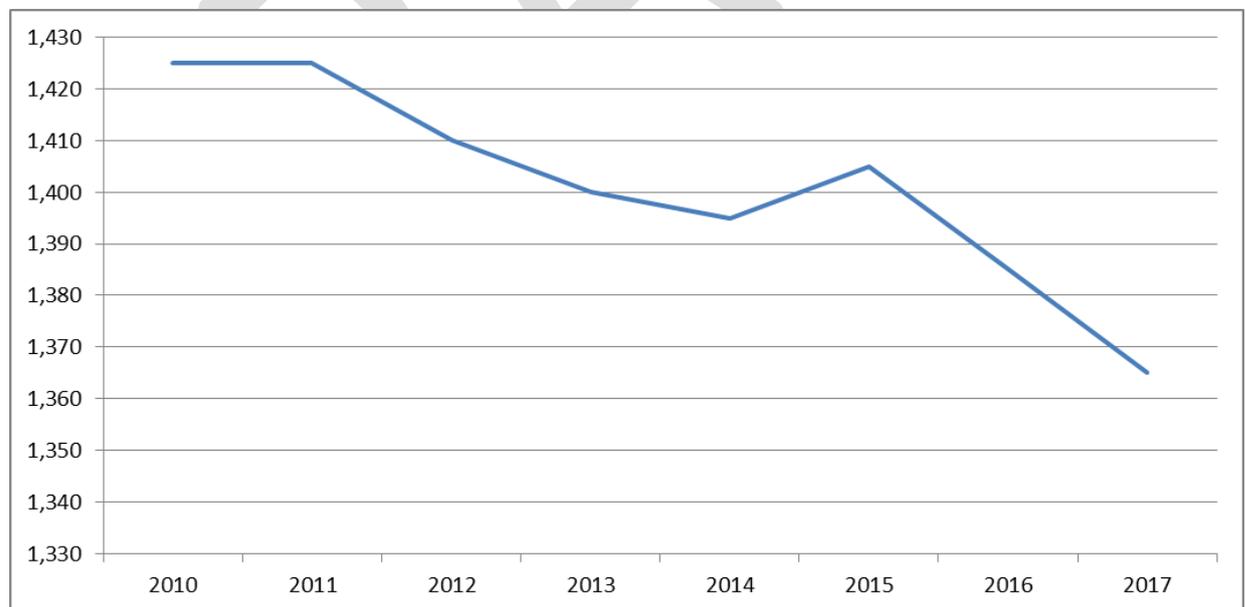
	Wales	Pembrokeshire
Micro (0 - 9)	94.5	94.1
Small (10 - 49)	3.8	3.3
Medium (50 - 249)	0.9	0.9
Large (250 +)	0.8	1.7

Source: Welsh Assembly Government (data from 2011).

The Pembrokeshire SME Survey 2012 found that 58% of business expected that their business would grow in the next 12 months (compared with 41% for the same survey in 2006). Those Businesses that expected to grow cited that a weak economy was the largest barrier to growth

### Agriculture

There is a steady decline in the number of businesses involved in Agriculture, Forestry or Fisheries. The graph below shows the number of Agriculture, Forestry and Fisheries enterprises in Pembrokeshire between 2010 and 2017.



Data source: [Office for National Statistics \(Nomis\)](#)

Unlike for 2001 and 2011, data for the 1991 Census were not published for the areas of National Parks in England and Wales. The following table shows the numbers employed in agriculture in 1991, 2001 and 2011 for Pembrokeshire, and selected Wards (wholly or substantially within the National Park) with consistent boundaries in 1991 and 2001. Note that the data for 1991 is based on a 10% sample of Census returns, so the figures for wards will be subject to a wide margin of error (10 to 14%)

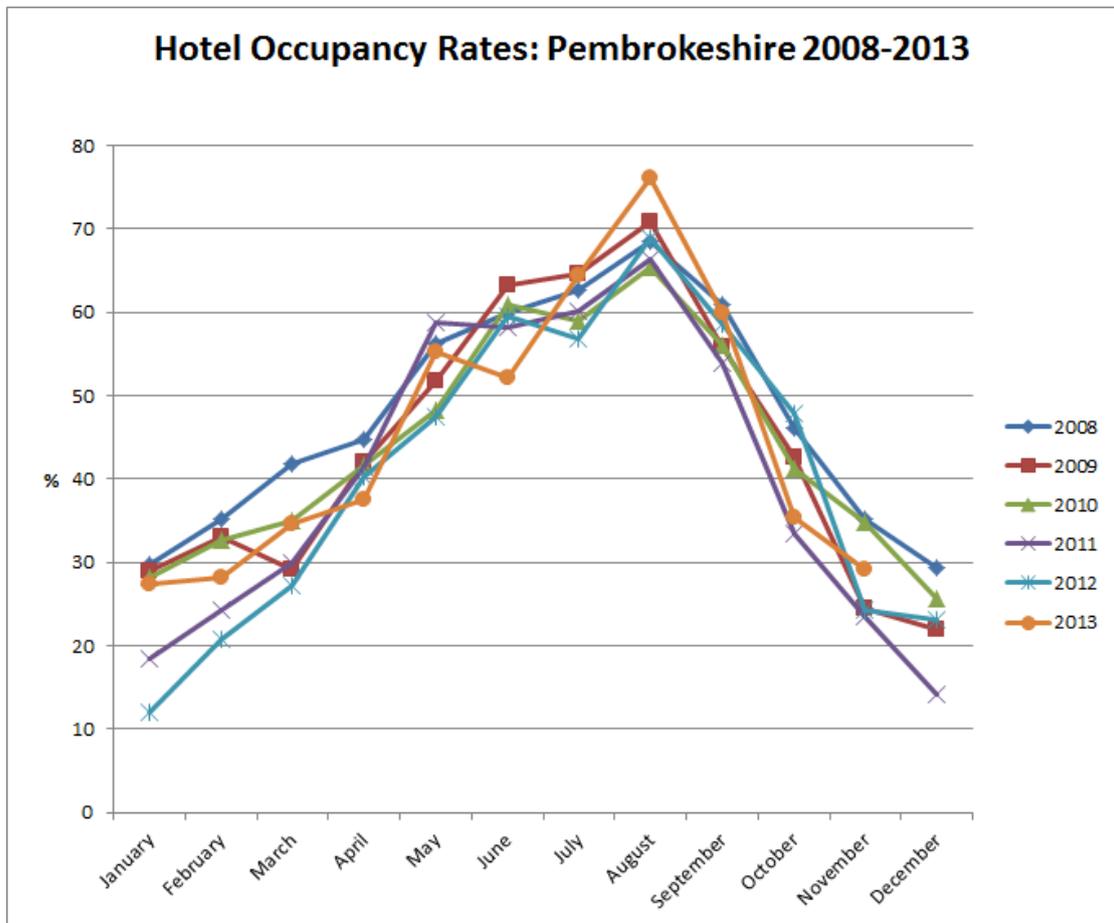
	Percentage of workforce employed in agriculture, forestry & fishing		
	1991	2001	2011
Wales	3.45	2.49	1.7
Pembrokeshire	9.44	6.83	4.7
Newport	12.5	6.67	5.24
Dinas Cross	38.36	20.83	14.65
St Davids	18.67	9.59	6.31
The Havens	14.29	9.7	8.53
St Ishmaels	16.13	10.48	7.75
Amroth	12.2	5.05	5.06

Source: Census 1991, 2001 & 2011

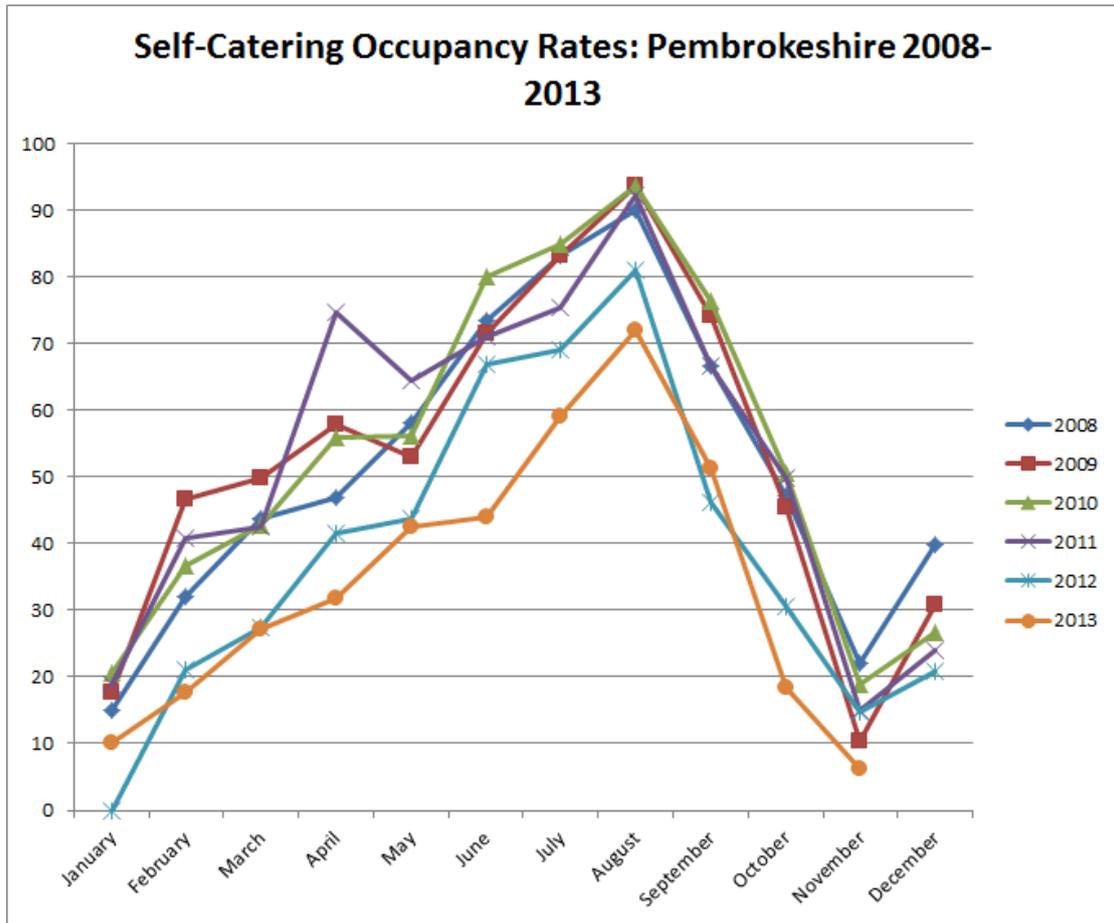
### Tourism

Statistics for visitor numbers to the Pembrokeshire Coast National Park (or Pembrokeshire) are generally unavailable. Statistics for visitor numbers for South West Wales were produced by Welsh Government and Visit Wales for 2011, these indicate that visitor numbers to South West Wales were between 3.4 and 3.8 million in 2011, no reliable trend data is currently available. Data are available on occupancy rates for hotels and self-catering units in Pembrokeshire, produced by Pembrokeshire County Council and available from the Pembrokeshire Tourism website<sup>8</sup>.

<sup>8</sup> <http://www.tourismhelp.co.uk/>

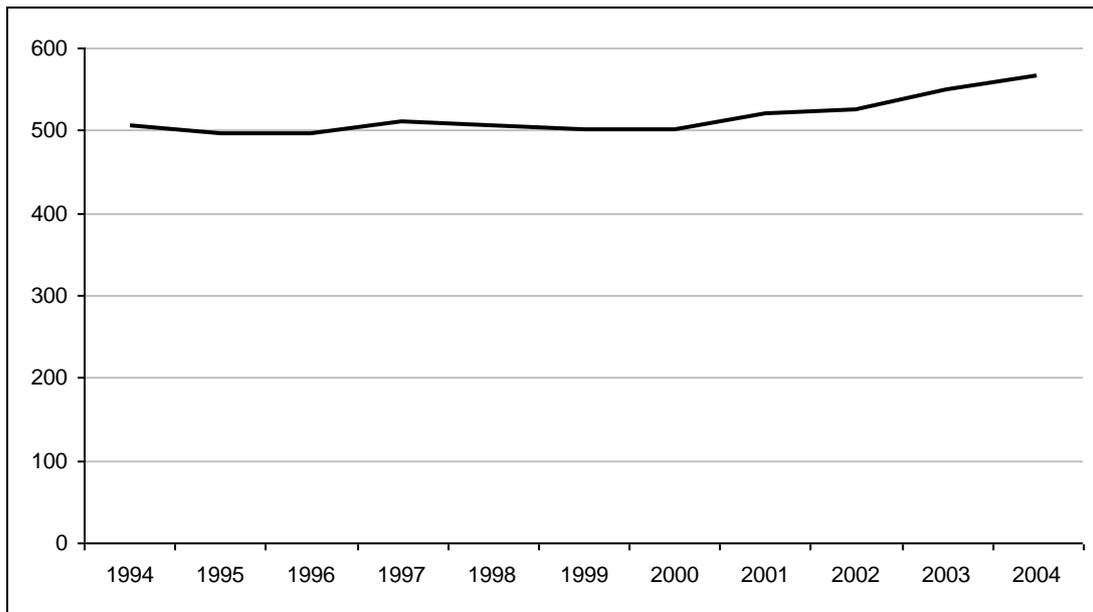


Source: Pembrokeshire County Council 2014



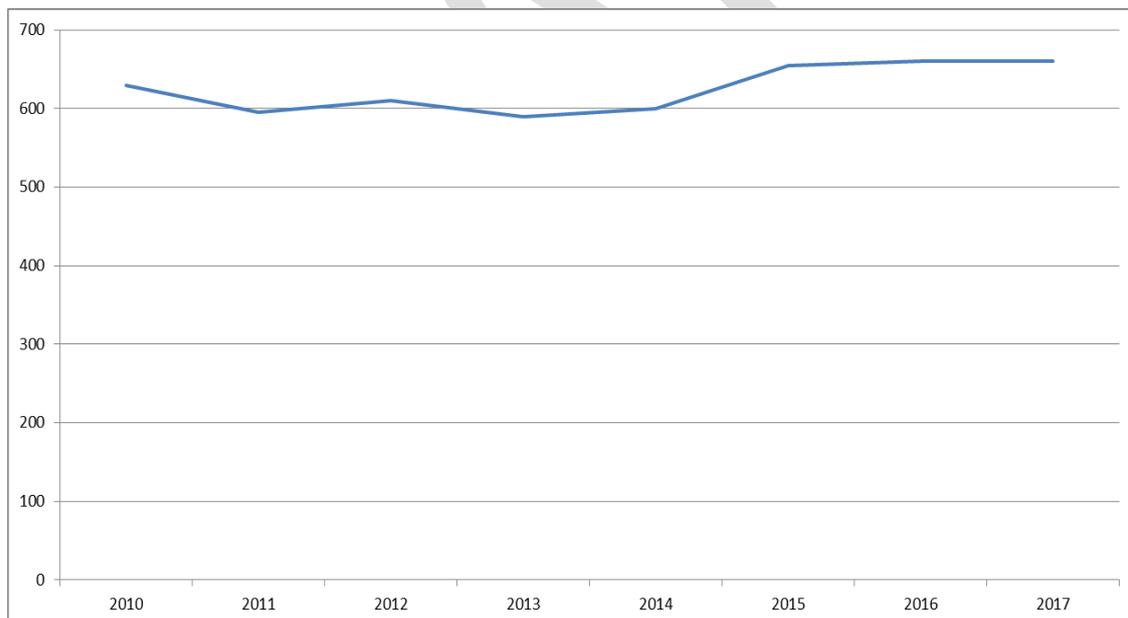
Source: Pembrokeshire County Council 2013

Some indication of the health of the tourism sector can be gained from changes in the number of VAT registrations in the Hotels and Restaurants sector. The following chart shows the number of VAT registered businesses in Pembrokeshire in the Hotels and Restaurants sector between 1994 and 2004.



**Data source: Office for National Statistics (Nomis)**

The publication of statistics for VAT registered businesses by ONS has been discontinued and replaced by a more general count of UK enterprises. The graph below shows the number of accommodation and food services enterprises in Pembrokeshire between 2010 and 2017. During this time the number of businesses in this sector has remained consistent but has increased from the 2004 figure.

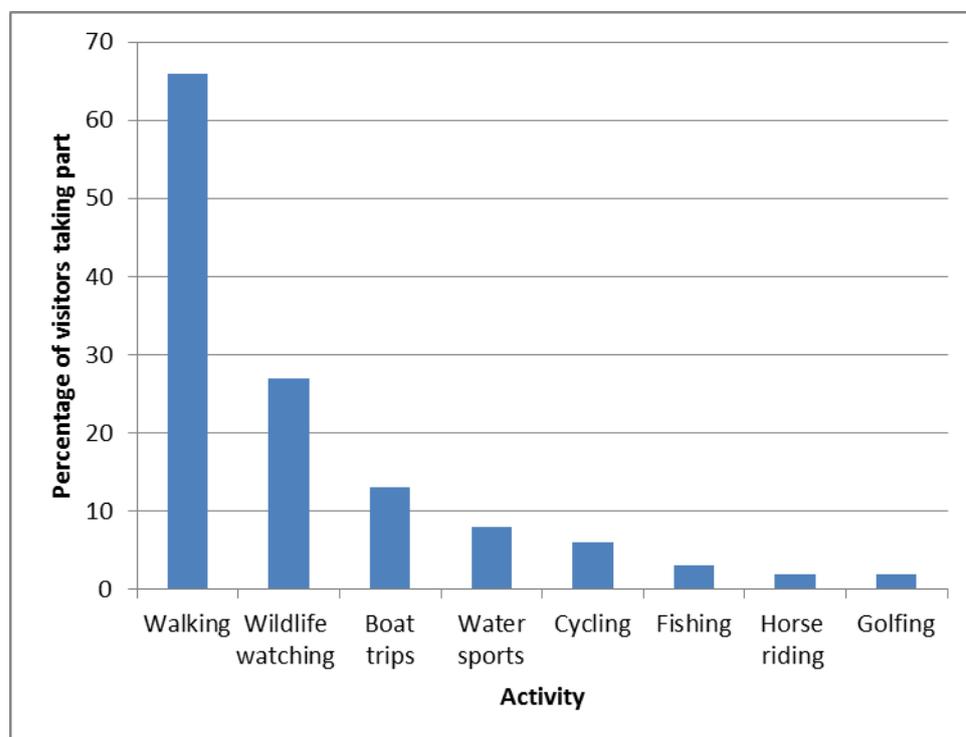


**Data source: [Office for National Statistics \(Nomis\)](#)**

Given the apparent importance of tourism to the economy of the National Park, and the second purpose of National Parks the lack of robust and directly relevant data on visitor numbers and tourism activity in the Park is a problem.

## Recreation

The 2012 Pembrokeshire Tourism Survey demonstrated that walking is the most significant recreational activity undertaken by visitors to the National Park, involving about 70% of visitors. Other popular activities are shown in the following chart.



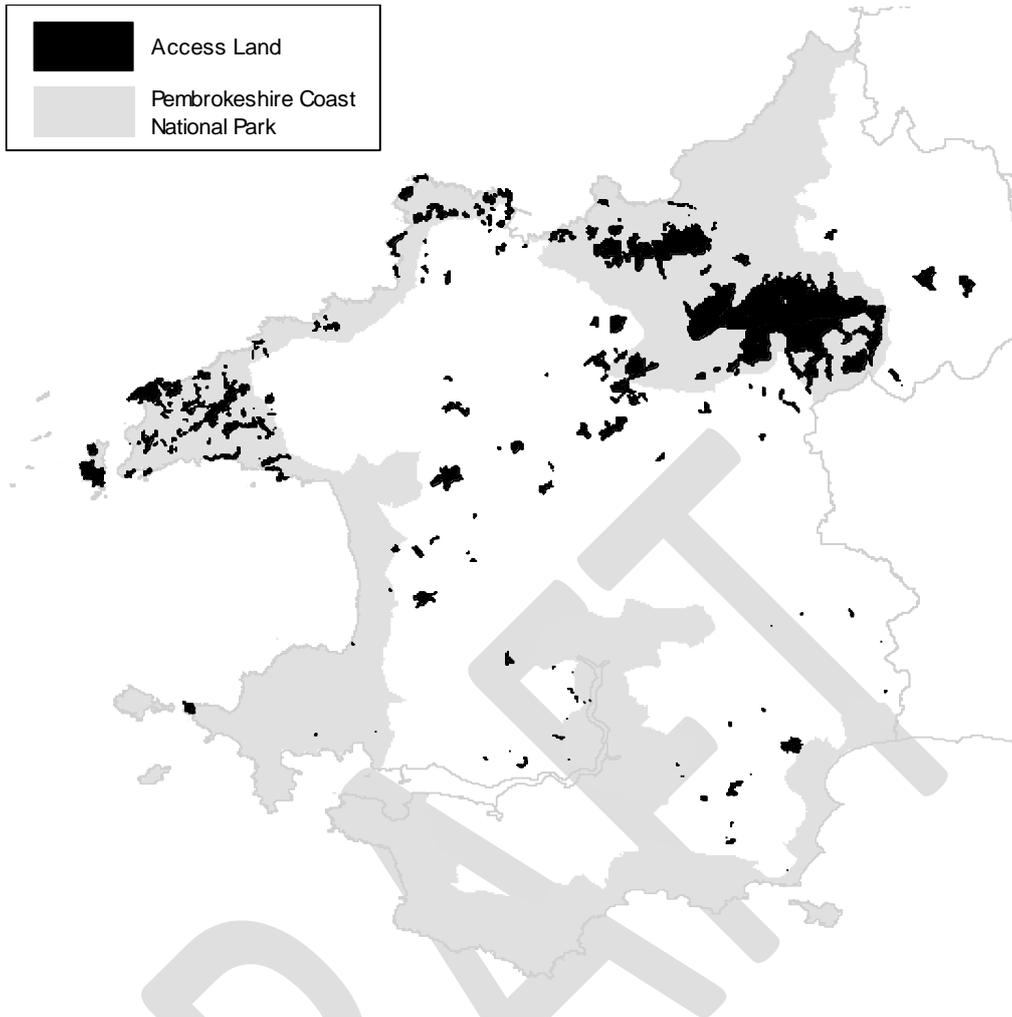
Source: Pembrokeshire Visitor Survey 2012

The core resource for recreational walking is the Public Rights of Way network and the Pembrokeshire Coast Path National Trail. The National Trail covers 316km around the coast of Pembrokeshire. The nature of the rest of the Rights of Way network in the National Park is summarised in the following table.

	Kilometres open	Kilometres in use	% open
Footpath	583.68	439.46	67.1%
Bridleway	177.85	165.53	93.00%
Byway open to all traffic	7.23	7.23	100.00%
Restricted Byway	1.1	1.1	100%
<b>Total</b>	<b>769.86</b>	<b>613.32</b>	<b>79.67%</b>

Source: PCNPA ROW Team (August 2017)

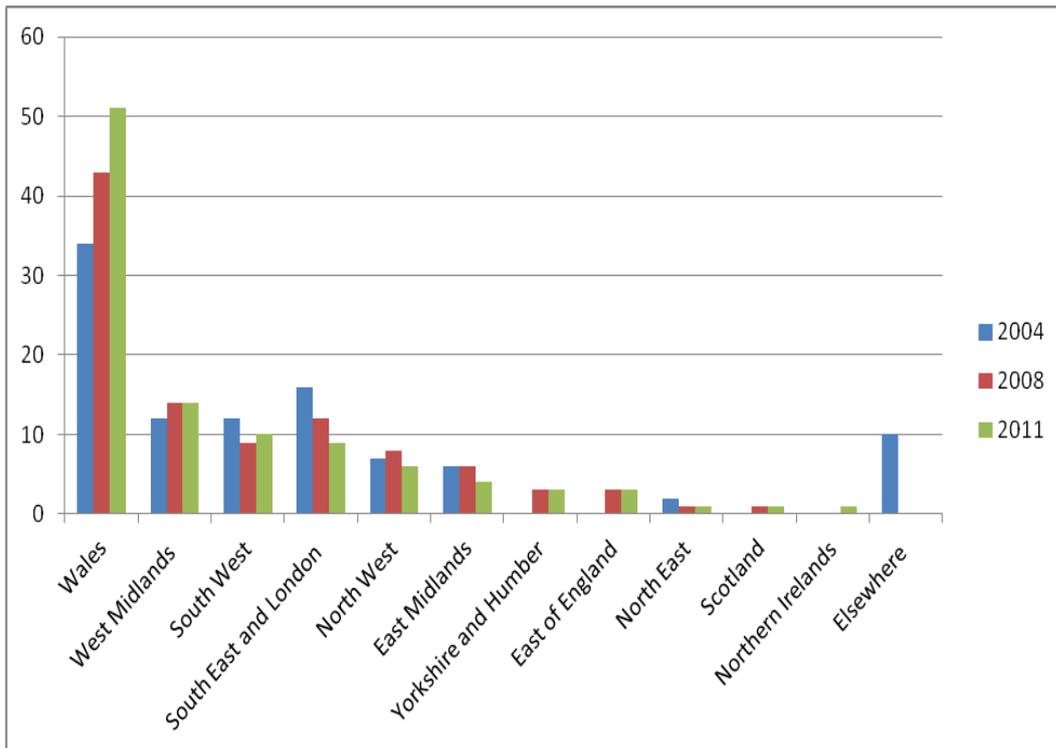
There are about 6616 hectares of Access Land in the National Park, most of it in the north. Access Land in Pembrokeshire is shown on the following map.



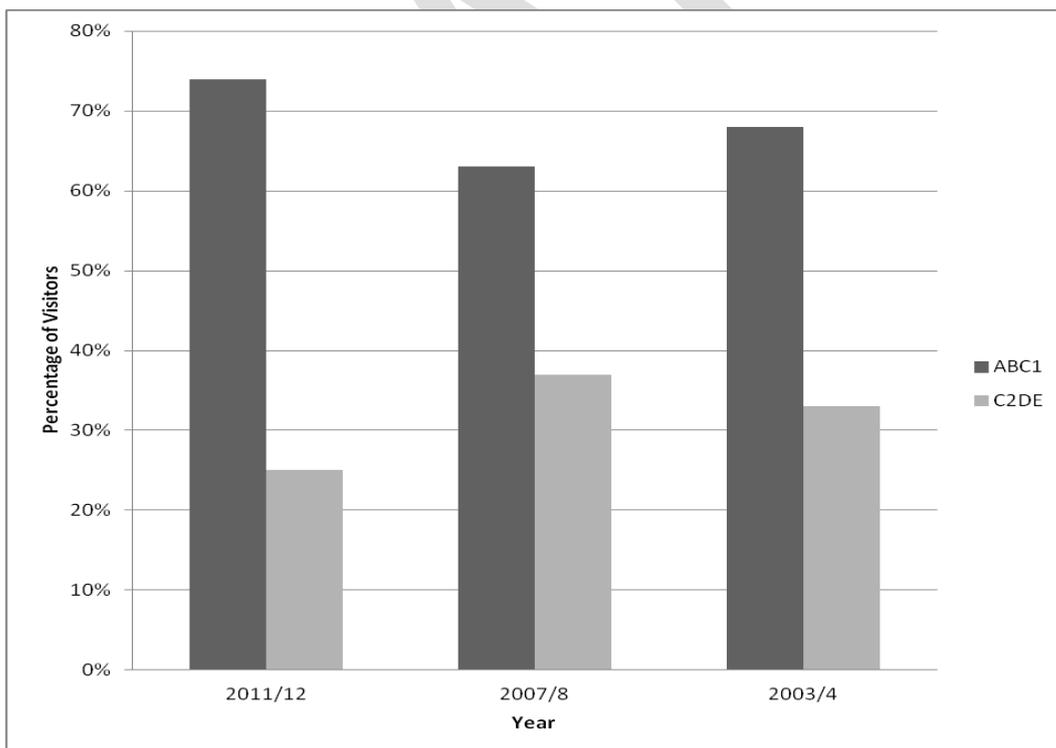
The origin of visitors to Pembrokeshire as determined by the Pembrokeshire Tourism Survey is shown in the following chart. The occupation group<sup>9</sup> (sometimes referred to as socio-economic classification) of the visitors is shown in the subsequent chart. Between the surveys of 2004 and 2011 a marked increase in the proportion of visitors from Wales is noted, along with a slight decline in years subsequent to 2004 in visitors from London. The increase in visitor numbers from the rest of Wales may be indicative of the economic situation.

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<sup>9</sup> For details of these groups see <http://www.mrs.org.uk/pdf/occgroups6.pdf>



Source: Pembrokeshire Visitor Survey (2004 – 2011)



**Proportion of visitors by occupation group**

Source: Pembrokeshire Visitor Survey 2011

As for tourism there is a need for more detailed information on recreational use of the National Park, particularly on absolute numbers participating in different activities and their impact on the environment, residents and other users of the National Park.

In addition to the recreation function of the area relating to its designation as a National Park, there is also a requirement to provide recreation facilities for residents. An Open Space Assessment has been carried out as part of the LDP process in accordance with TAN 16 - Sport, Recreation and Open Space. Details of this assessment is included in the Local Development Plan Background Papers 'Open Space Assessment' and 'Open Space Assessment Methodology'.

### Education & Skills

The table below shows the percentage of people aged 16-74 in the National Park with a various levels of qualifications<sup>10</sup>, with the percentages in Pembrokeshire and Wales for comparison.

	No qualifications	Level 1	Level 2	Level 3	Level 4/5	Other qualifications / level unknown
<b>PCNP</b>	21.4	12.2	16.4	10.8	30.9	4.2
<b>Pembrokeshire</b>	24.6	13.6	16.8	11.8	24.8	8.45
<b>Wales</b>	25.9	13.3	15.7	12.3	24.5	4.3

Data source: 2011 Census

### Access to services

Most County Council Wards in the National Park are classified amongst the 10% most deprived in Wales in the Access to Services domain of the Welsh Index of Multiple Deprivation (WIMD) 2014. The exceptions were St David's, Newport and the area around Tenby and Saundersfoot. The Access to Services domain of the WIMD considers access to: a food shop; GP surgery; primary school; post office; public library; leisure centre; NHS dentist; and secondary school.

In January and February 2006 Pembrokeshire County Council surveyed its Community Panel on their experience of accessing key services. This study gives an insight into the perception of access to services, as opposed to the WIMD domain which is a comparative analysis of the physical distance to services. The following table shows the percentage of respondents finding it 'very easy' or 'fairly easy' to access the stated services, in rural and urban parts of Pembrokeshire (those not answering fairly or very easy found accessing the service fairly or very difficult).

Service	Rural	Urban	All
A park or open space	91%	94%	93%
Childcare facilities	65%	85%	74%

<sup>10</sup>

**Level 1:** 1+ 'O' level passes, 1+ CSE/GCSE any grades, NVQ level 1, Foundation GNVQ.

**Level 2:** 5+ 'O' level passes, 5+ CSEs (grade 1's), 5+ GCSEs (grades A-C), School Certificate, 1+ 'A' levels/'AS' levels, NVQ level 2, Intermediate GNVQ.

**Level 3:** 2+ 'A' levels, 4+ 'AS' levels, Higher School Certificate, NVQ level 3, Advanced GNVQ.

**Level 4/5:** First degree, Higher degree, NVQ levels 4 and 5, HNC, HND, Qualified Teacher Status, Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor.

Civic amenity site (e.g. local tip)	69%	76%	72%
Council office	65%	89%	76%
Cultural or recreational facility (e.g. theatre, cinema)	66%	78%	71%
Library	83%	97%	90%
Local hospital	71%	85%	77%
Local schools	91%	96%	93%
Pharmacy / chemist	91%	98%	94%
Public transport (e.g. bus stop, train station)	74%	94%	84%
Recycling facilities	77%	85%	81%
Shopping facilities	89%	98%	93%
Sports or leisure centre	78%	88%	83%
Your GP	87%	94%	91%
Your place of work	84%	92%	88%

Source: Pembrokeshire County Council

### Community/ cultural distinctiveness

#### Welsh Language

	Welsh speakers 2001 Census (%)	Welsh speakers 2011 Census (%)	Change (%)
Pembrokeshire Coast National Park	23.3	21.5	-1.8%
Pembrokeshire	21.5	18.4	-3.1%

Source: ONS

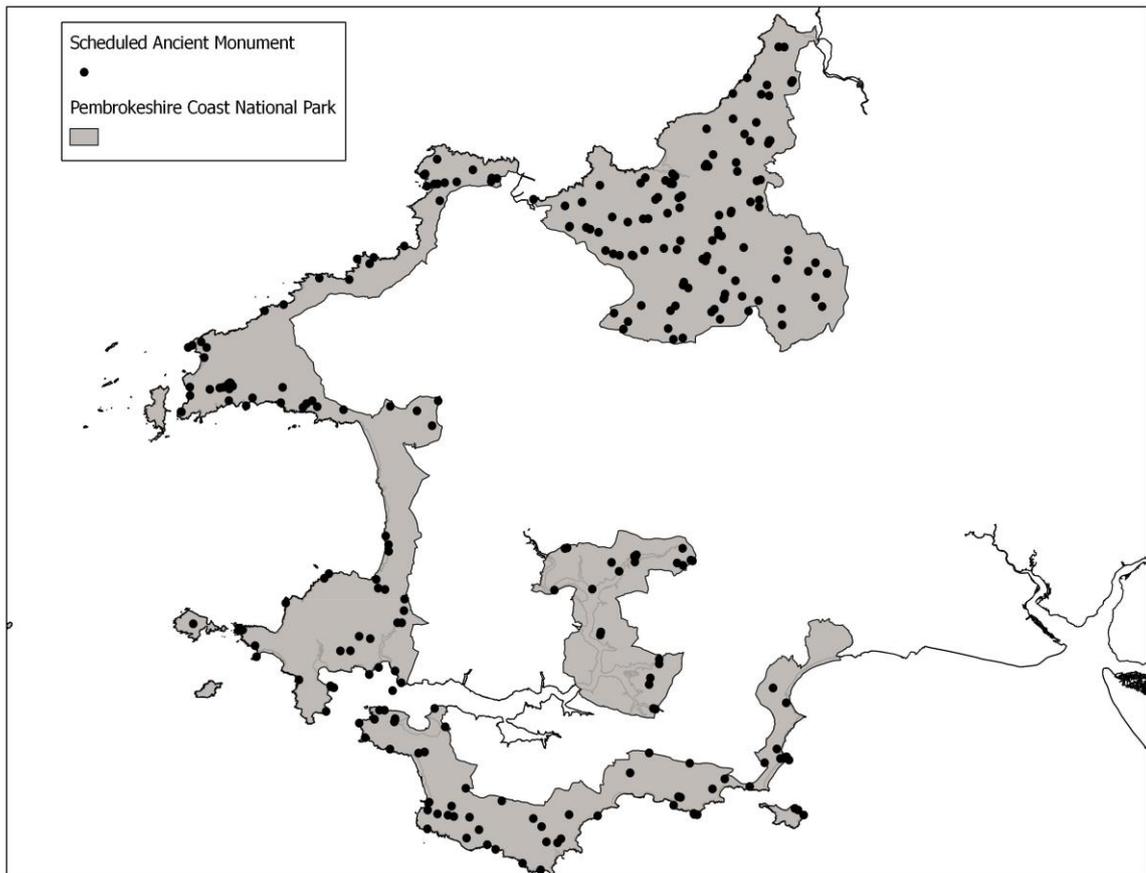
For more detailed information on Welsh Language please see the Local Development Plan Background Paper on Welsh Language.

#### Other indicators of cultural distinctiveness

Culture is an aspect of the LandMap landscape characterisation programme for Wales. This aspect will soon be complete and may provide indicators of cultural distinctiveness in the National Park. Cultural distinctiveness, whilst considered a special quality of the National Park, is likely to prove difficult to measure.

#### Historic environment

There are over 280 Scheduled Ancient Monuments (SAMs) in the National Park, and over 8000 sites in the Historic Environment Records (HER – Dyfed Archaeological Trust). The locations of SAMs are shown in the following map.



Some data on the condition of Scheduled Ancient Monuments in the National Park is available and has been provided by CADW (July 2017). However, the data is not comprehensive and no trend data is currently available.

**Summary of Scheduled Monument condition in Pembrokeshire Coast National Park:**

Condition	Count	Percent
Greatly improved	6	2.42%
Improved	38	15.32%
Stable	115	46.37%
Worsened	88	35.48%
Very much worse	1	0.40%

**Details of SAMs condition in PCNP:**

Site Name	Assessment Date	Condition
St. D's Bishops Palace	28/06/2006	greatly improved

Slebech Old Church	12/02/2009	greatly improved
Mounds on the Island	12/02/2009	greatly improved
Porthgain Quarry and Harbour	10/01/2007	greatly improved
Crow Back Tumulus	03/05/2005	greatly improved
Tramroad Incline at Saundersfoot	26/06/2009	greatly improved
Tenby Town Wall	29/10/2007	improved
Pentre-Ifan Burial Chamber	20/07/2005	improved
Castell Coch Promontory Fort	18/11/2007	improved
Llech-y-Tribedd Burial Chamber	20/07/2005	improved
Castell Coch	15/07/2009	improved
Carew Bridge	25/01/2007	improved
Castle Point Old Fort	23/10/2003	improved
Bedd Yr Afanc Burial Chamber	21/02/2008	improved
Waun Mawn Standing Stones	21/02/2008	improved
Tenby Castle	29/10/2007	improved
Pant-y-Groes Round Barrow	15/09/2005	improved
Standing Stone	10/02/2004	improved
Two Early Christian Crosses in Morvil Churchyard	30/10/2003	improved
Castell Mound	05/10/2004	improved
Hodgeston Moated Site	11/06/2007	improved
Porth-y-Rhaw Camp	12/09/2008	improved
Picton Castle Mound	12/02/2009	improved
Hanton Round Barrows	25/03/2002	improved
Tre-Gynon Camp	31/01/2004	improved
St Govan's Chapel and Well	26/11/2007	improved
Round Barrow N of Rosemary Lane	22/01/2004	improved
Chapel Bay Fort	12/07//2004	improved
Budloy Standing Stone	09/06/2006	improved
Sampson Cross Standing Stone	22/05/2008	improved

Stackpole Farm Standing Stone	22/05/2008	improved
Stackpole Warren Standing Stone	22/05/2008	improved
Caerau Promontory Forts	12/10/2005	improved
Castell Coch Promontory Fort (on Penmorfa)	18/11/2004	improved
Cresswell Castle 100m W of Cresswell Quay	08/05/2009	improved
The Old Castle	17/03/2009	improved
Promontory Fort at Sheep Island	31/07/2007	improved
Brawdy Promontory Fort	06/02/2004	improved
Black Rock Quarry Lime Kilns	18/08/2008	improved
Flimston Farmhouse	26/04/2009	improved
Pricaston Farmhouse	26/04/2009	improved
Linney Deserted Medieval Village	29/04/2009	improved
Bier Hill Round Barrows	03/06/3008	improved
First World War Practice Trenches, Penally Range	11/09/2007	improved
Carew Castle	11/06/2007	stable
Manorbier Castle	03/06/2008	stable
Carew Cross	25/01/2007	stable
St. Non's Chapel	19/02/2004	stable
St. Justinian's Chapel	19/02/2004	stable
St. D's Close Wall + Gateways	27/06/2005	stable
Carn Ingli Round Barrows	04/10/2006	stable
Devil's Quoit Burial Chamber	26/11/2007	stable
Bulliber Hill Camp	29/04/2009	stable
Carn Wnda Burial Chamber	23/10/2003	stable
Carreg Samson Burial Chamber	18/11/2004	stable
Ynys y Castell	25/09/2006	stable
Mountain Burial Chamber	11/03/2005	stable
Trellyfaint Burial Chamber + standing stone	08/12/2003	stable
Carn Llidi Burial Chambers	13/10/2004	stable

Burial Chamber	15/07/2008	stable
Carn Ffoi Camp	04/10/2006	stable
Coetan Arthur Burial Chamber	12/10/2005	stable
Carreg Coetan Burial Chamber	25/04/2005	stable
Garn Fawr Camp	09/10/2006	stable
Angle Dovecot	31/07/2007	stable
The Tower	31/07/2007	stable
St. Davids Head Camp	12/10/2005	stable
Llanwnwr Cross-Slab	24/11/2004	stable
Dinas Mawr Camp	09/10/2006	stable
Hut Circles and Ancient Enclosures NW of Carn Llidi	12/10/2005	stable
The City Cross	19/02/2004	stable
Clegyr-Boia Camp	06/02/2004	stable
Fishpond Camp	10/06/2008	stable
Standing Stone 290m S of Mabesgate	23/01/2008	stable
Waun Llwyd Standing Stones	08/11/2007	stable
Ty-Newydd Standing Stones	11/03/2005	stable
Standing Stones Near Upper Lodge	25/02/2009	stable
Inscribed Stone in Churchyard	15/09/2005	stable
Rock Hewn Cross 220 m W of Church	05/10/2007	stable
High Cross in Churchyard	15/09/2005	stable
Castell Henllys	15/05/2007	stable
Rath S of St. James Church	22/04/2008	stable
Syke Rath	19/03/2009	stable
Rickeston Rath	19/03/2009	stable
Capeston Rath	22/04/2008	stable
Great Castle Head Rath	18/05/2009	stable
Castell Pengegin	16/06/2006	stable

Tal-y-Gaer Corbelled Hut	18/11/2004	stable
Castell Tre-Riffeth	15/05/2007	stable
Two Pillar-Crosses in Churchyard	25/05/2007	stable
Two Pillar-Crosses in Churchyard, Llanllawer	25/05/2007	stable
Holy Well	16/06/2006	stable
Castel Mael	16/06/2008	stable
Tre-Bwlch Pillar Crosses	15/10/2003	stable
Incised Cross at Cemetery Cross Roads	23/10/2003	stable
Castle Lake Camp	12/02/2009	stable
Picton Point Camp	12/02/2009	stable
Tower Point Rath	25/08/2009	stable
Howney Stone Rath	25/02/2009	stable
Mill Haven Rath	25/02/2009	stable
Foel Eryr Round Cairn	10/02/2004	stable
Foel Cwm-Cerwyn Round Cairns	08/11/2007	stable
Foel Feddau Round Cairn	18/05/2005	stable
Pillar Cross in Newport Churchyard	25/04/2005	stable
Pillar Cross 140m SE of Newport Church	25/04/2005	stable
Cwm Gloyn Camp	05/09/2008	stable
Carn Ingli Common Hut Circles	25/04/2005	stable
Mynydd Caregog Hut Circle	04/10/2006	stable
Cup-Marked Stone 350m E of Tre-Fael	15/09/2005	stable
Linney Head Camp	29/04/2005	stable
Flimston Bay Camp	29/04/2009	stable
Crocksydam Camp	29/04/2009	stable
Buckspool Down Camp	29/04/2009	stable
Deer Park Promontory Fort	25/08/2009	stable
Round Barrow S of Rosemary Lane	25/01/2007	stable
West Blockhouse Fort	18/05/2009	stable

Stackpole Earthwork	10/06/2008	stable
Cronllwyn Earthwork	25/05/2007	stable
Castell Cleddyf	23/10/2003	stable
Tafarn-y-Bwlch Standing Stones	22/11/2006	stable
Standing Stone NNW of Sandy Haven House	23/01/2008	stable
Huts on Mynydd Melyn	11/12/2007	stable
Bedd Morris Standing Stone	10/02/2004	stable
Harold Stone	25/02/2009	stable
Stackpole Warren Hut Group	22/05/2008	stable
Foel Eryr Hut Group	22/11/2006	stable
Waun Clyn-Coch Hut Group	18/05/2005	stable
Banc Llwydlos Hut Group	18/05/2005	stable
Penparke Standing Stone	15/10/2003	stable
Carn Alw Hillfort	15/05/2007	stable
Huts, Enclosures & Field Systems, Bernards Well Mountain	22/11/2006	stable
Deserted Medieval Site at New Inn	29/01/2008	stable
The Old Palace, Lydstep	03/06/2008	stable
Old Castle Head Promontory Fort	18/08/2008	stable
Promontory Fort on Little Castle Head	23/01/2008	stable
Tenby Market Cross	29/10/2007	stable
Potter's Cave	16/10/2008	stable
Nanna's Cave	16/10/2008	stable
Daylight Rock Mesolithic Site	16/10/2008	stable
Martin's Haven Early Christian Inscribed Cross	19/06/2009	stable
Medieval Pottery Kiln, Newport Memorial Hall	04/10/2006	stable
St Davids Cathedral Close: The Free School	27/06/2005	stable
St Davids Cathedral Close: Archdeacon of Cardigans Ground	27/06/2005	stable
Pillar Stone in Penparke	15/10/2003	stable

Landshipping House Garden Remains	08/05/2009	stable
Garden Earthworks at Coedcanlas Farm	08/05/2009	stable
Rhode Wood Shaft Mounds	26/06/2009	stable
Bedd Arthur	23/02/2009	stable
Corn Drying Kiln 130m E of Mirianog-Ganol	22/11/2006	stable
Garn Fechan Camp	25/09/2006	stable
Burnt Mound 320m S of Winsle Leys	23/01/2008	stable
Burnt Mound 160m E of Woodsend	22/04/2008	stable
Burnt Mound 120m SSE of Cippin Fach	16/10/2006	stable
Burnt Mound 160m SW of Wern-Ddu	16/10/2006	stable
Enclosure 200m SE of Solva Village	12/09/2008	stable
Enclosure in Tycanol Wood	20/07/2005	stable
Whitewell	19/02/2004	stable
Inscribed Stone 130m E of Penwaun	23/10/2003	stable
Tafarn-y-bwlch Deserted Rural Settlement	31/08/2006	stable
Blackpoint Rath	25/02/2009	very much worse
Lamphey Palace	03/10/2007	worsened
Foel Drygarn Camp	09/11/2006	worsened
Carn Ingli Camp	29/06/2004	worsened
St. Patrick's Chapel	13/10/2004	worsened
Lecha Burial Chamber	10/01/2007	worsened
Garn Gilfach Burial Chamber	15/07/2008	worsened
Kings Quoit Burial Chamber	03/06/2008	worsened
Greenala Camp	22/05/2008	worsened
Cerig-y-Gof Burial Chamber	04/10/2006	worsened
Carn Ffoi Prehistoric Settlement	04/10/2006	worsened
Merrion Camp	10/06/2008	worsened
Angle Castle	03/10/2007	worsened
Castell Poeth	24/11/2004	worsened

Newport Castle (unoccupied parts)	25/04/2005	worsened
Parc y Castell Mound + Bailey Castle	13/10/2004	worsened
Gors Fawr Stone Circle	11/03/2005	worsened
Dyffryn Stone Circle	29/01/2008	worsened
Parc-y-Meirw Standing Stones	08/12/2003	worsened
Whitewell	18/08/2008	worsened
Woodland Round Barrow	11/09/2006	worsened
Castell Nanhyfer	30/10/2003	worsened
Castlemartin Castle	10/06/2008	worsened
West Pickard Camp	26/11/2007	worsened
Castell Mawr	10/02/2004	worsened
Cwm-Pen-y-Benglog Camp	07/12/2004	worsened
Castell Llwyd	07/12/2004	worsened
Woodland Rath	11/09/2006	worsened
Watery Bay Rath	25/08/2009	worsened
Castle Mound	23/01/2008	worsened
Crugiau Cemmaes Round Barrows	21/02/2005	worsened
Ty-Meini Standing Stone	16/06/2006	worsened
Tre-Fach Standing Stone	21/02/2005	worsened
Caerau	08/12/2003	worsened
Pen-y-Castell Promontory Fort	16/10/2006	worsened
Glan-Dwr-Isaf Camp	02/03/2009	worsened
Five Pillar-Crosses in Churchyard	25/05/2007	worsened
Wern Camp	04/03/2005	worsened
Castell y Fuwch	09/06/2006	worsened
Bickny Round Barrow	17/02/2006	worsened
Eastington Manor House	19/08/2009	worsened
Rhyndaston-Fawr Standing Stone	22/01/2004	worsened
Newton North Church	15/07/2009	worsened

Slade Camp	19/05/2006	worsened
Pointz Castle Mound	26/05/2006	worsened
Gate Standing Stone	11/03/2005	worsened
Caerfai Camp	19/02/2004	worsened
Castell Heinif	19/02/2004	worsened
Sister's House	21/04/2009	worsened
Court Moated Site	07/12/2004	worsened
South Hook Camp	27/07/2007	worsened
Glyn Gath Round Barrow	13/09/2004	worsened
Bulliber Camp (East)	29/04/2009	worsened
Brownslade Round Barrow	03/05/2005	worsened
Dale Point Promontory Fort (Defences)	26/09/2009	worsened
Dale Point Fort (Unoccupied Parts)	26/09/2008	worsened
South Hook Fort	18/05/2009	worsened
Cnwc Round Cairns	05/10/2004	worsened
Tre-Fach Camp	15/09/2005	worsened
Brandy Brook Camp	26/05/2006	worsened
Parc-Lan Standing Stones	11/12/2007	worsened
Aberfelin Mill	30/11/2004	worsened
Lime Kilns	12/09/2008	worsened
Penrallt yr Esgob Cairn	08/12/2003	worsened
Castell Coch Promontroy Forts	08/11/2004	worsened
Remains of Medieval Farmhouse with Round Chimney at Croftufty	12/09/2008	worsened
Remains of East Blockhouse N of Rat Island	31/07/2007	worsened
Iron Age Enclosure in Kilkiffeth Wood	16/06/2006	worsened
Promontory Fort S of Solva Harbour	12/09/2008	worsened
Standing Stone NW of Trecenny Farm	31/11/2004	worsened
Promontory Fort on Great Castle Head	23/01/2008	worsened

Caer, Bayvil	21/02/2005	worsened
Lower Tregennis Burial Chamber	17/02/2006	worsened
Cottage, Mill and Lime Kiln at Caerbwdy	19/02/2004	worsened
Minwear Ringwear	15/07/2009	worsened
The Watchtower	18/08/2008	worsened
St Davids Cathedral Close: Chanter's Orchard	27/06/2005	worsened
St Davids Cathedral Close: Vicar's College	27/06/2005	worsened
St Davids Cathedral Close: Cloister Hall (Undercroft only)	27/06/2005	worsened
Fort Popton (Curtain Walls and Gun Emplacements only)	31/07/2007	worsened
Moated Site 100m East of Caeforiog Bridge	10/01/2007	worsened
Fort St Catherine	no visit	worsened
Enclosed Settlement 70m S of The Little Haven Hotel	01/07/2004	worsened
St Davids Cathedral Mill Leat	17/02/2006	worsened
Manorbier Dovecot	03/06/2008	worsened
Linney Head Tumulus	29/04/2009	worsened
Blackpool Iron Furnace	24/09/2003	worsened
Enclosure Site on Allt Pen-Gegin-Isaf	10/02/2004	worsened
Enclosure Site 80m N of Ty Mawr	10/02/2004	worsened

Source: CADW (2017)

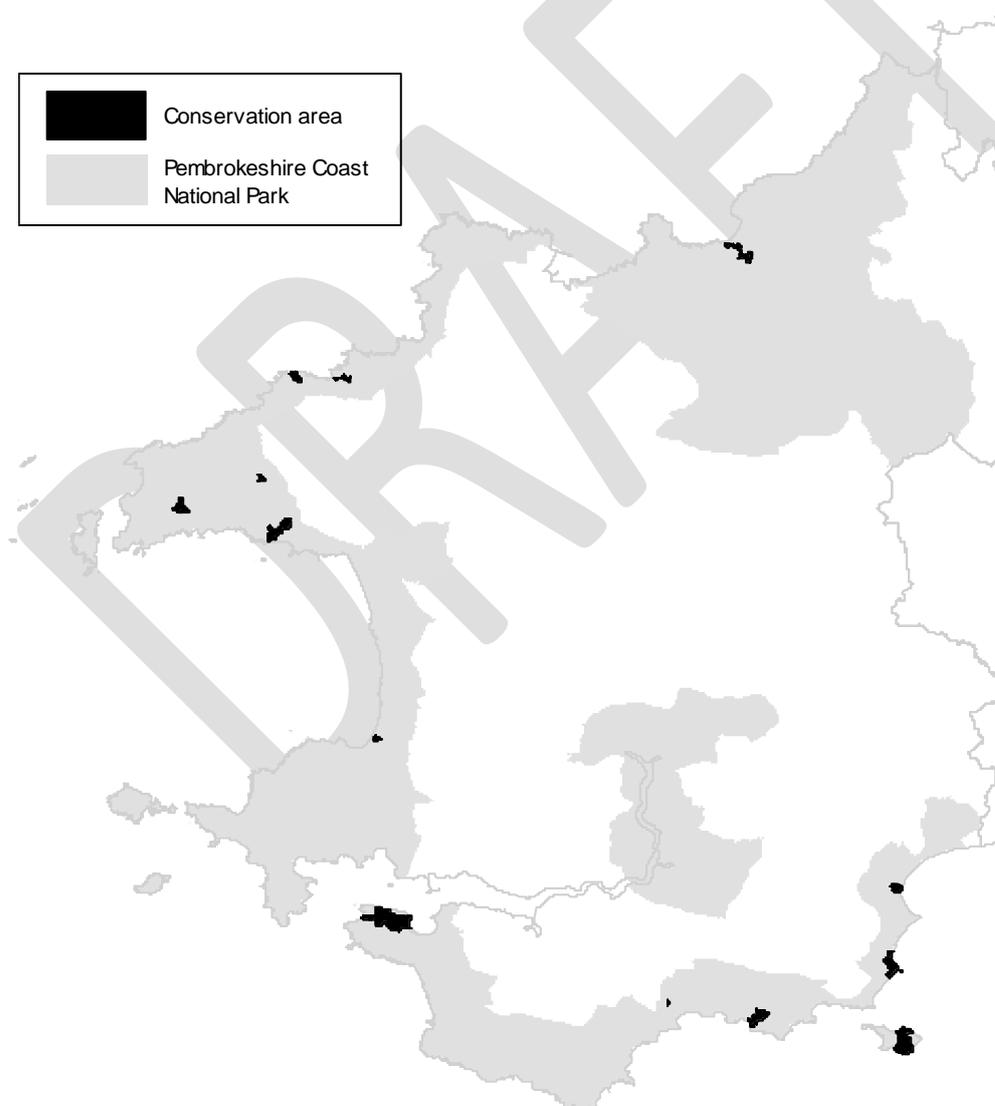
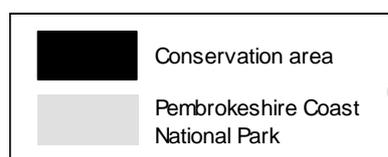
There are 14 Conservation Areas within the National Park, with the addition of Newport Parrog in 1999. The National Park Authority also produced and adopted a "Conservation Area Proposals" Supplementary Planning Guidance (SPG) in October 2011.

Article 4 directions are applied to Little Haven, Newport, Solva, St Davids and Tenby conservation areas, which restrict permitted development and will help to further protect these areas from the impacts.

Details of the Park's Conservation areas including size and location can be found in the table and map below.

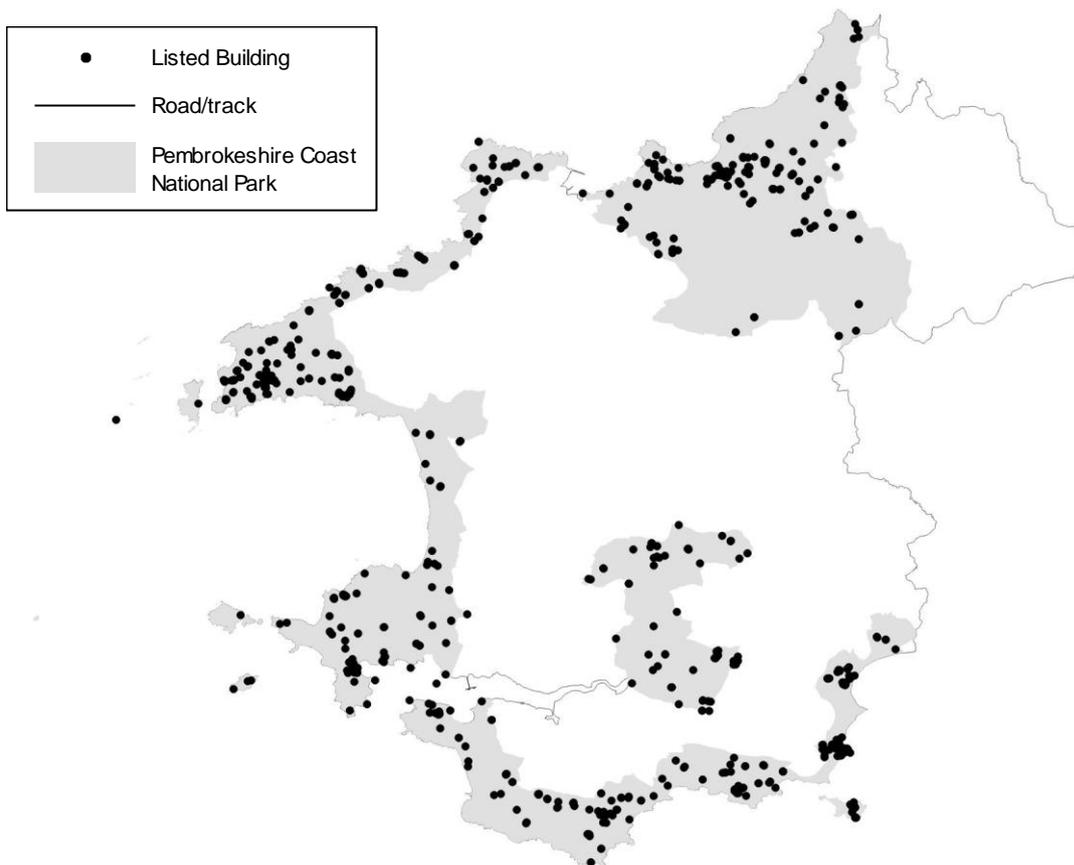
Conservation Area	Size (hectares)
Angle	166.815
Caerfarchell	9.836

Conservation Area	Size (hectares)
Caldey Island	97.028
Little Haven	5.435
Manorbier	41.266
Newport and Newport Parrog	33.43
Portclew	2.85
Porthgain	17.8
Saundersfoot	20.73
Solva	62.366
St Davids	32.75
Tenby	49.449
Trefin	9.797



There over 1200 listed buildings in the National Park, 31 of these are Grade I, and 76 Grade II\*. The locations of these buildings is shown on the following map, Newport, St David's and

Tenby are shown at greater detail (note these maps are intended to indicate the distribution of listed buildings in the National Park, they do not show the definitive locations of the buildings).



**Listed buildings in the Pembrokehire Coast National Park**



**Listed buildings in Newport**

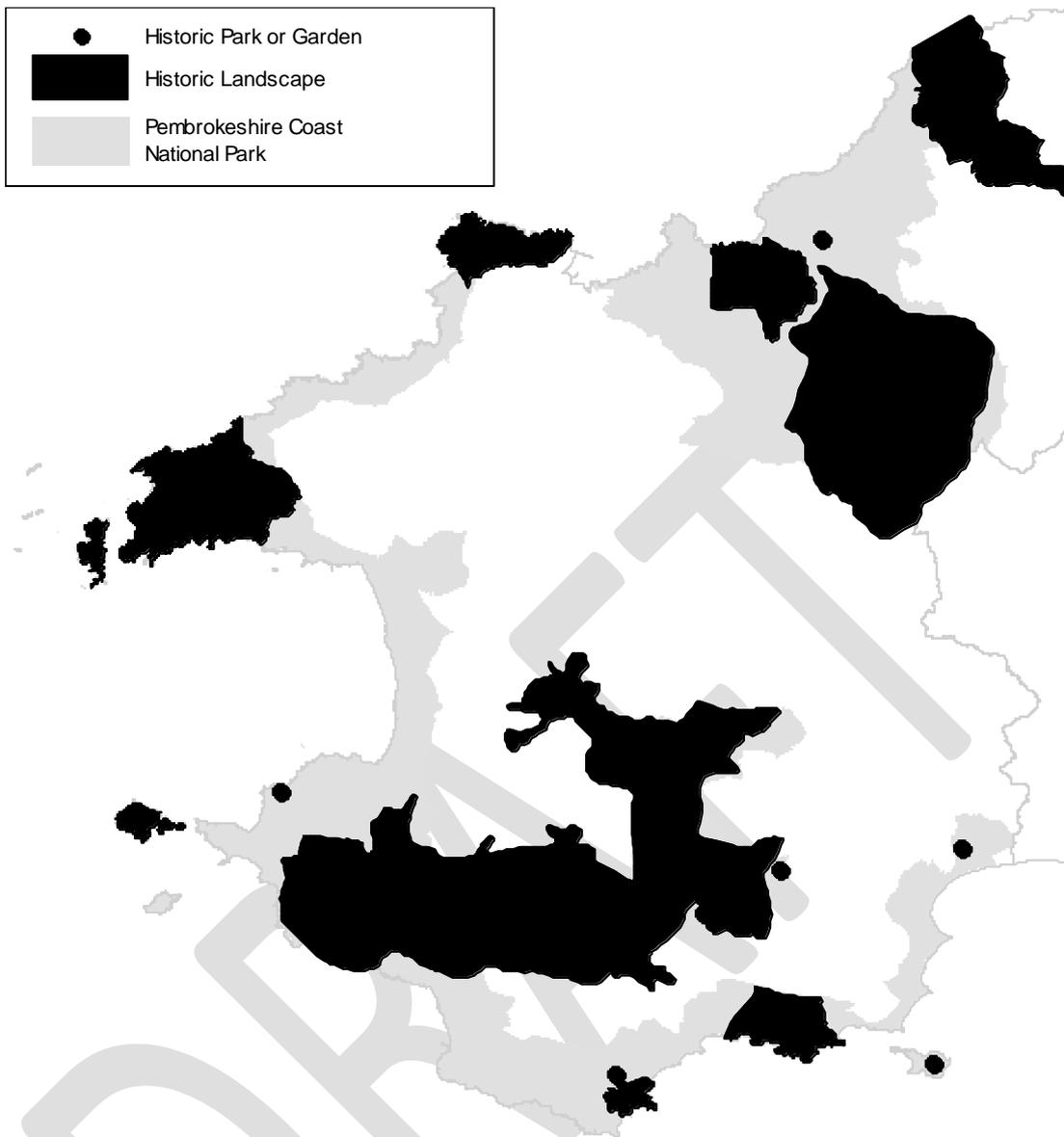


Listed buildings in St David's



Listed buildings in Tenby

There are 9 Historic Landscape areas all or partly within the National Park. These are: Mynydd Preseli; St David's Peninsula & Ramsey Island; Skomer Island; Milford Haven Waterway; Newport & Carningli; Pen Caer; Stackpole Warren; the Lower Teifi Valley; and Manorbier. There are 15 historic Parks and Gardens in the National Park: Boulston Old Hall; Colby Lodge; Coshleston Hall; Cresselly; Lawrenny; St Brynachs Churchyard; St Brides Castle; Upton Castle; Warpool Court Hotel; Caldey Priory; Trewarren; Picton Castle; Slebech Park; Coedcanlas; and Stackpole Court. They are shown on the following map.



Though it is clear from the above information that there is a rich historic environment in the Pembrokeshire Coast National Park, more information is needed on the condition and management of sites. There is also likely to be a significant offshore historic resource (wrecks and submerged prehistoric sites) and more information on this is desirable.

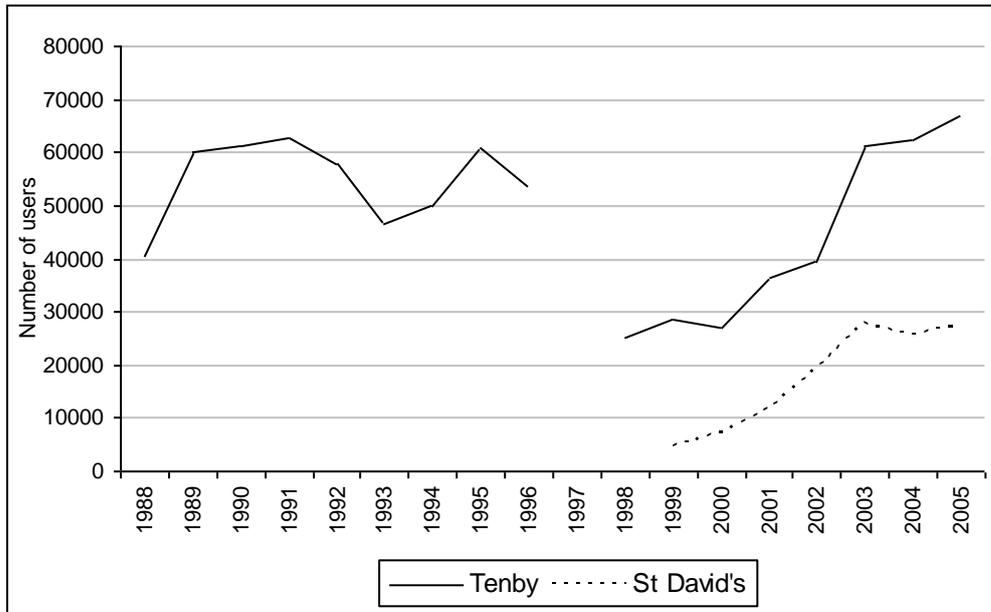
## Transport

### Car ownership

At the 2011 Census there was found to be 1.0 cars or vans per household in the Pembrokeshire Coast National Park. However it was also found that 16.4% of households had no car or van, the highest percentage of non-car ownership of any National Park in England & Wales.

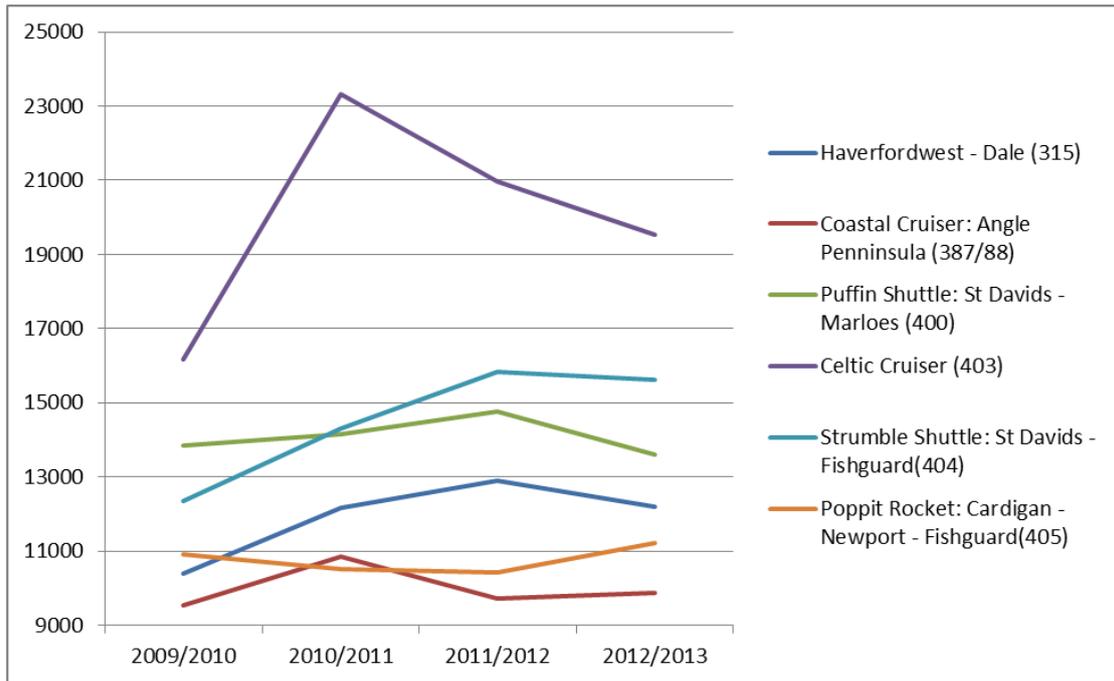
### Use of cars by visitors

The Pembrokeshire Visitor Survey conducted in 2012 found that 88% of visitors travelled to Pembrokeshire by car (this is down 3% on 2003/4). Park and Ride schemes have operated in Tenby since 1988 and St David's since 1999. The numbers of users of the Park and Ride schemes are shown in the following chart.



Note: there is no data for 1997 as the park and ride service did not operate that year. Source: PCNPA

Service	2009/2010	2010/2011	2011/2012	2012/2013
Haverfordwest - Dale (315)	10386	12155	12892	12205
Coastal Cruiser: Angle Peninsula (387/88)	9535	10841	9714	9871
Puffin Shuttle: St Davids - Marloes (400)	13849	14160	14775	13608
Celtic Cruiser (403)	16178	23333	20962	19517
Strumble Shuttle: St Davids - Fishguard(404)	12342	14312	15840	15624
Poppit Rocket: Cardigan - Newport - Fishguard(405)	10905	10520	10433	11221
<b>Total</b>	<b>73195</b>	<b>85321</b>	<b>84616</b>	<b>82046</b>



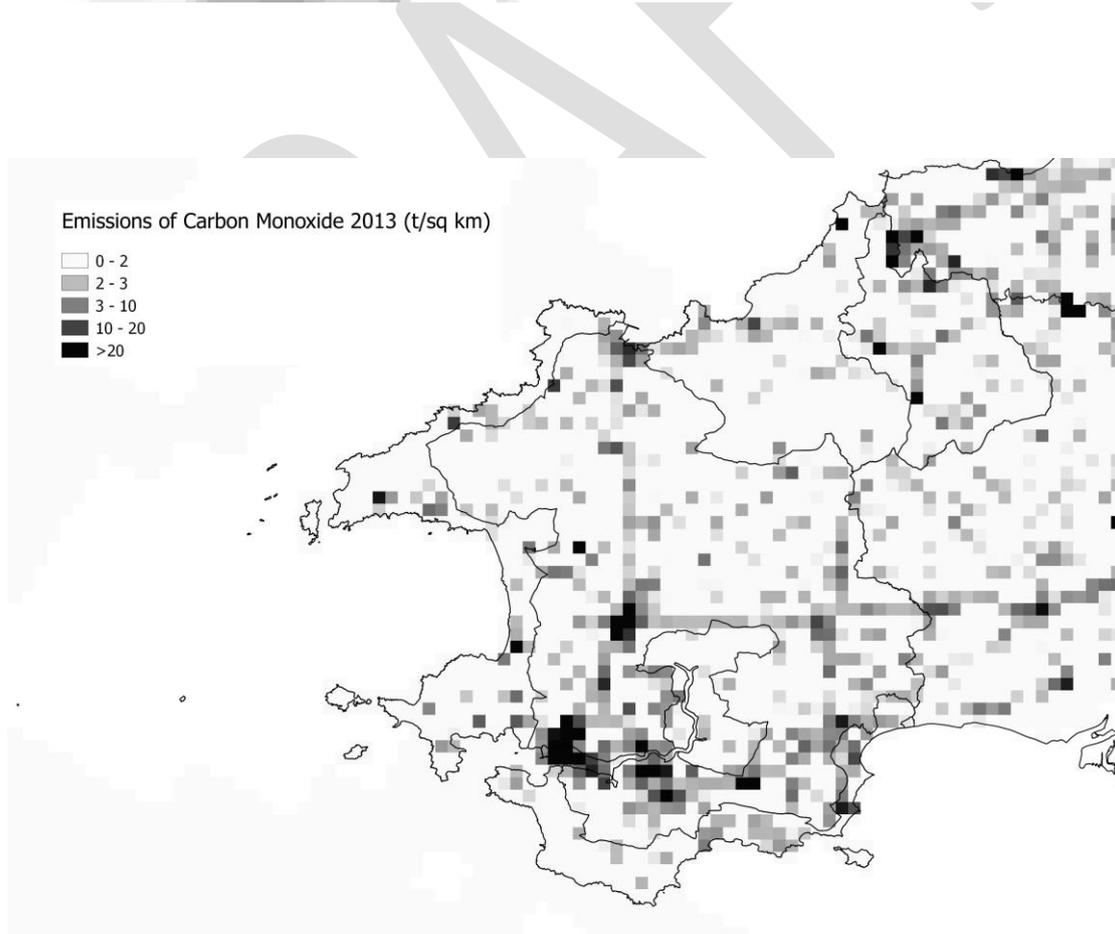
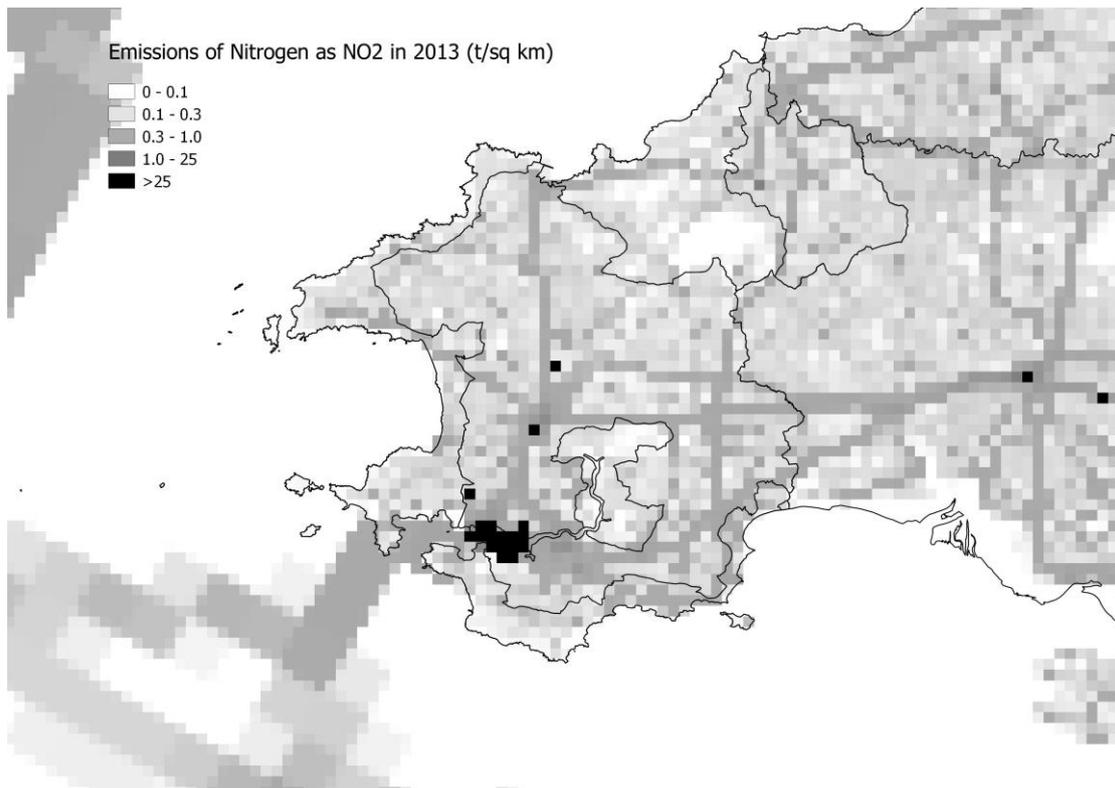
**Pembrokeshire County Council**

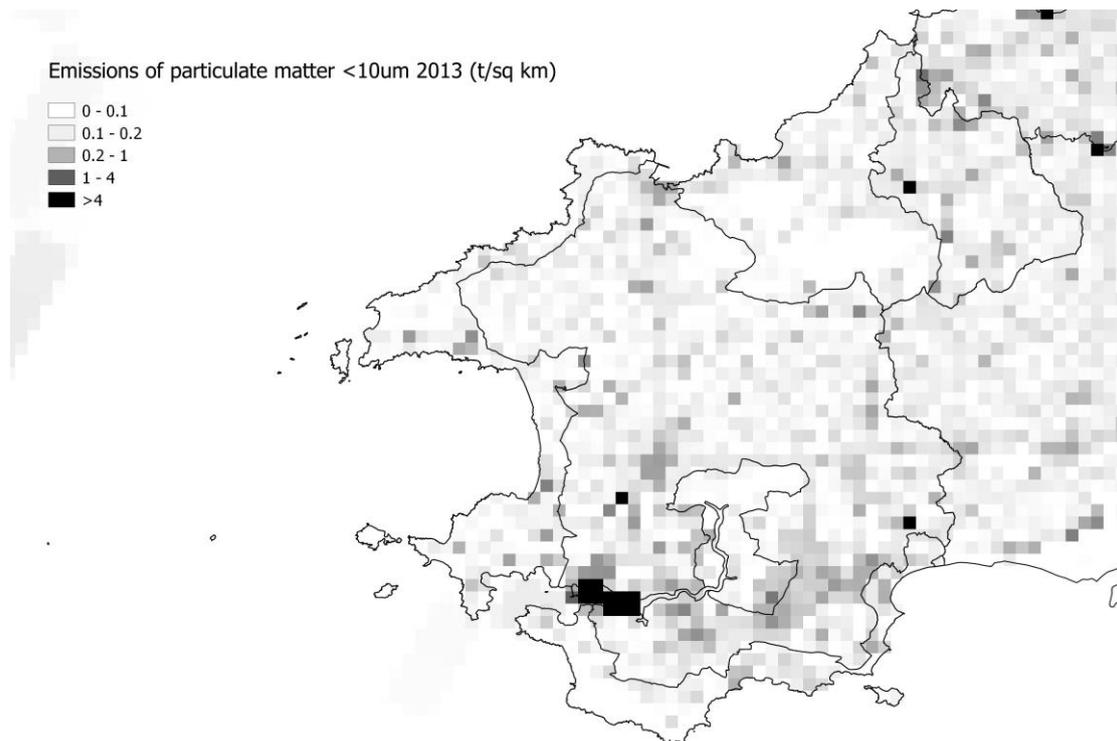
In order to monitor use of private road transport, more monitoring data for roads within and leading into the National Park is needed.

**Pollution**

**Air pollution/quality**

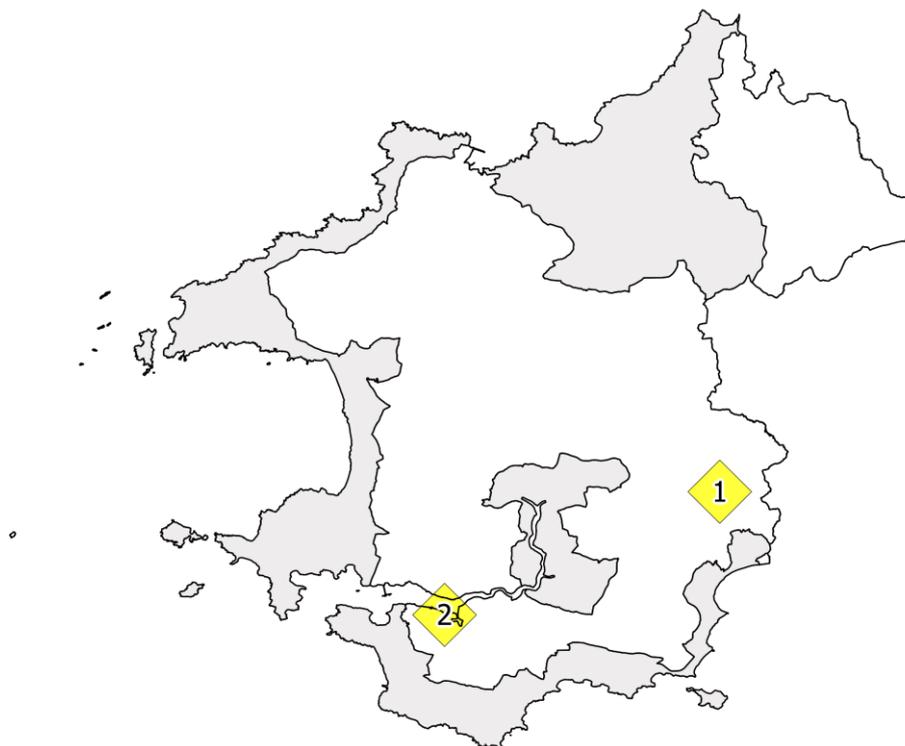
A range of air pollution emissions data and maps, with emissions broken down by sector are available from the web site of the National Atmospheric Emissions Inventory (<http://www.naei.org.uk/index.php>). Emissions maps for Pembrokeshire in 2012 are presented below for Oxides of Nitrogen (NOx) and Carbon Monoxide, and the 2012 emissions map for particulate matter smaller than 10µm.





There are two automatic air quality monitoring stations operating in Pembrokeshire:

1. Near Narberth on a rural site near the B4314 (grid ref SN146127), operated on behalf of DEFRA since 1997.
2. Adjacent to agricultural land, behind Pembroke Powerstation, Pennar Cants (grid ref SM931030). Operated by RWE nPower since October 2013.



<b>Narberth Automatic Air Quality Monitoring Station: Annual Averages</b>						
	2011	2012	2013	2014	2015	2016
NOx as NO <sub>2</sub> (max daily mean µm <sup>-3</sup> )	48	46	38	40	24	38
Particulates <10µm (max daily mean µm <sup>-3</sup> )	71	67	82	63	47	50

Source: [Welsh Air Quality Forum](#)

<b>Pennar-Cants Air Quality Monitoring Station: Annual Averages</b>				
	2011	2012	2013	2014
NOx as NO <sub>2</sub> (max daily mean µm <sup>-3</sup> )	-	-	17(Oct-Dec)	40
Particulates <10µm (max daily mean µm <sup>-3</sup> )	-	-	47(Oct-Dec)	46

Source: [Welsh Air Quality Forum](#)

It has not been possible to source data to estimate air quality across the National Park as this would require samples from a relatively large number of locations in and around the Park. Whether it is desirable to acquire this data is debatable, collecting it may involve significant effort, and air quality issues for the National Park relate more to the role of activities in and around the Park in contributing air pollutants (covered by the NAEI data) rather than the air quality experienced at sites in the National Park.

### **Water quality**

The classification (under the Water Framework Directive (2000) classification system) of water bodies in the National Park is generally "Moderate" according to the most recent assessments, which were carried out in 2012. A water body that is of "moderate" status is one that "Good" or "High" ecological status but is failing to achieve a "Good" chemical status. The table below shows a summary of the overall status of water bodies under the Water Framework Directive classification system

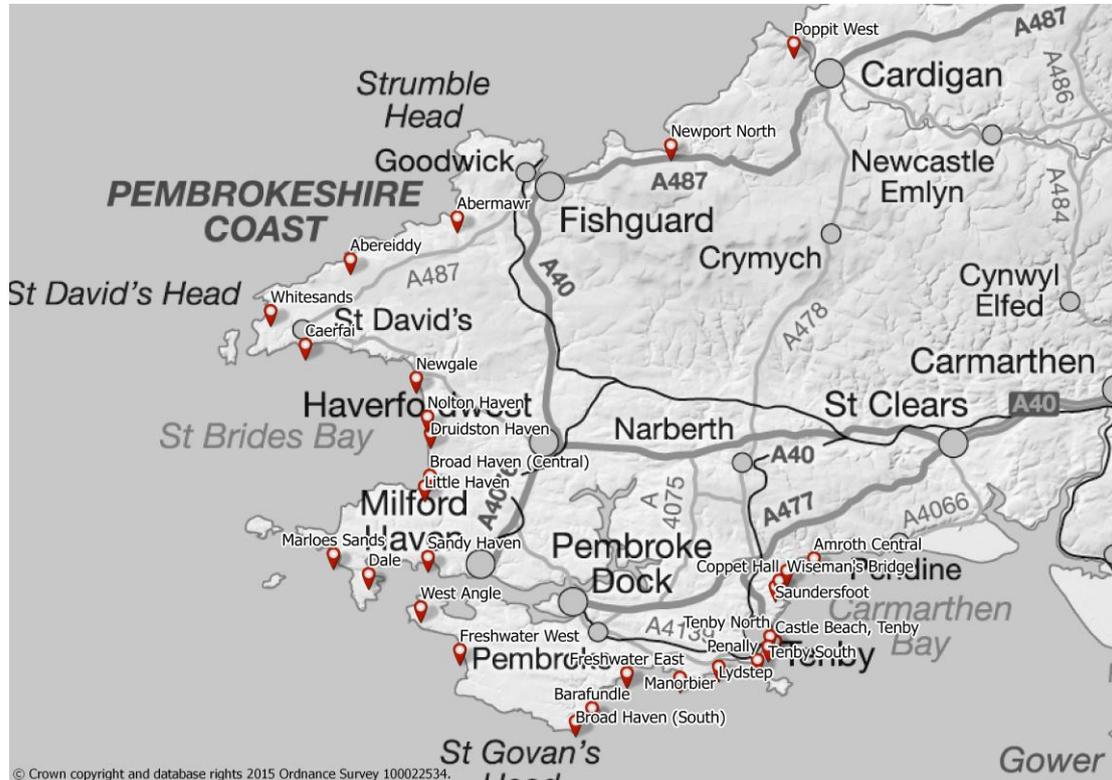
Water Body Category	Overall status						
	Total No. Water Bodies	High	Good	Moderate	Poor	Bad	Not yet assessed
River	85		13	69	3		
Lake	2		1	1			
Transitional	5		2	3			
Coastal	5		2	3			
Ground Water	5		2		3		

**Source:** Natural Resources Wales (2012)

## Bathing Water Quality

Natural Resources Wales carry out bathing water quality assessments at a number of locations throughout Wales between May and September each year; the results are then used to project an annual rating/classification (see below). This rating is based primarily on the concentrations of faecal coliforms present in the water<sup>11</sup>.

Data is collected at 29 locations within the National Park:



Bathing Water Quality Classification Scale:

Excellent	★ ★ ★
Good	★ ★
Sufficient	★
Poor	—

In 2015 all of the bathing water locations assessed in the National Park were classified as “Good” or “Excellent” (2 or 3 stars).

<sup>11</sup> For more information see Natural Resources [Wales Bathing Water Quality web pages](#).

Location Year	2011	2012	2013	2014	2015	2016
<b>Abereddy</b>	No classification	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Abermawr</b>	No classification	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Amroth Central</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Barafundle</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Broad Haven (Central)</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Broad Haven (South)</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Caerfai</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Castle Beach, Tenby</b>	★ ★ ★	★ ★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Coppet Hall</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Dale</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Druidston Haven</b>	No classification	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Freshwater East</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Freshwater West</b>	No classification	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★

Location Year	2011	2012	2013	2014	2015	2016
Little Haven	No classification	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★
Lydstep	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Manorbier	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Marloes Sands	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Newgale	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Newport North	★ ★	★ ★	★ ★	★ ★ ★	★ ★	★ ★ ★
Nolton Haven	No classification	★	★ ★ ★	★ ★	★ ★	★
Penally	No classification	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Poppit West	★ ★ ★	★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★
Sandy Haven	No classification	★ ★	★ ★	★ ★	★ ★	★
Saundersfoot	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Tenby North	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Tenby South	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★

Location / Year	2011	2012	2013	2014	2015	2016
West Angle	★ ★ ★	★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★
Whitesands	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Wiseman's Bridge	No classification	★	★	★ ★	★ ★	★ ★

### Nitrate Vulnerable Zones

The Nitrates Directive (91/676/EEC) is designed to protect waters against nitrate pollution from agricultural sources. Member states are required to identify waters which are, or could become, polluted by nitrates and to designate as Nitrate Vulnerable Zones (NVZs) all land that drains to those waters. A review of NVZ designations in Wales is currently underway.

■ NVZ Consultation Areas



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### Climate Change

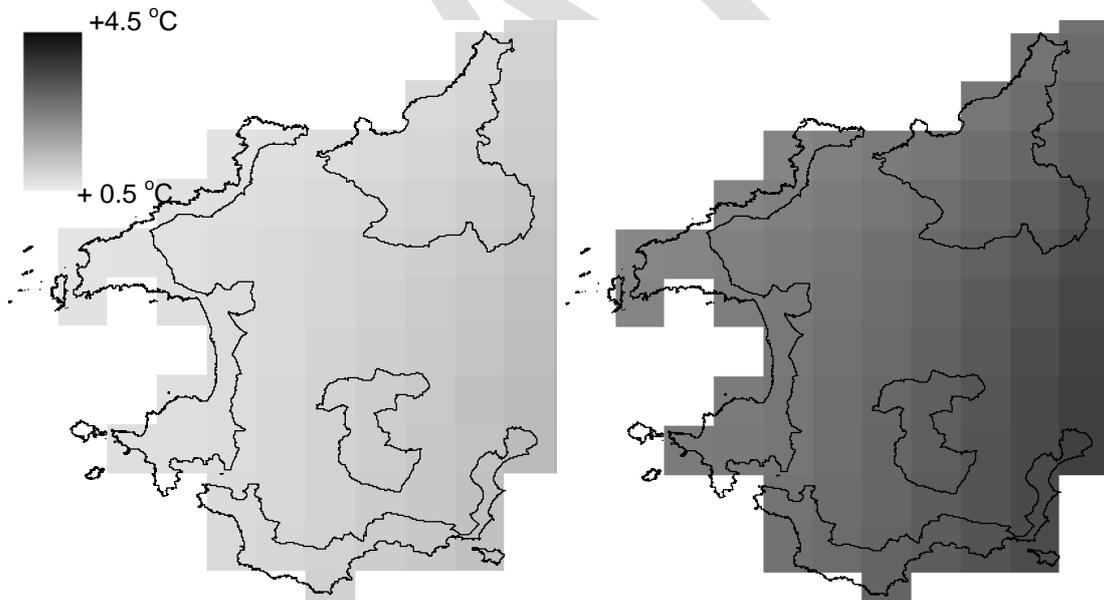
#### Baseline

Historic weather station data is available for Tenby (5 metres above mean sea level) and Aberporth (133m AMSL) from the Meteorological Office (<http://www.metoffice.gov.uk/climate/uk/averages/index.html>). The table below shows that 30

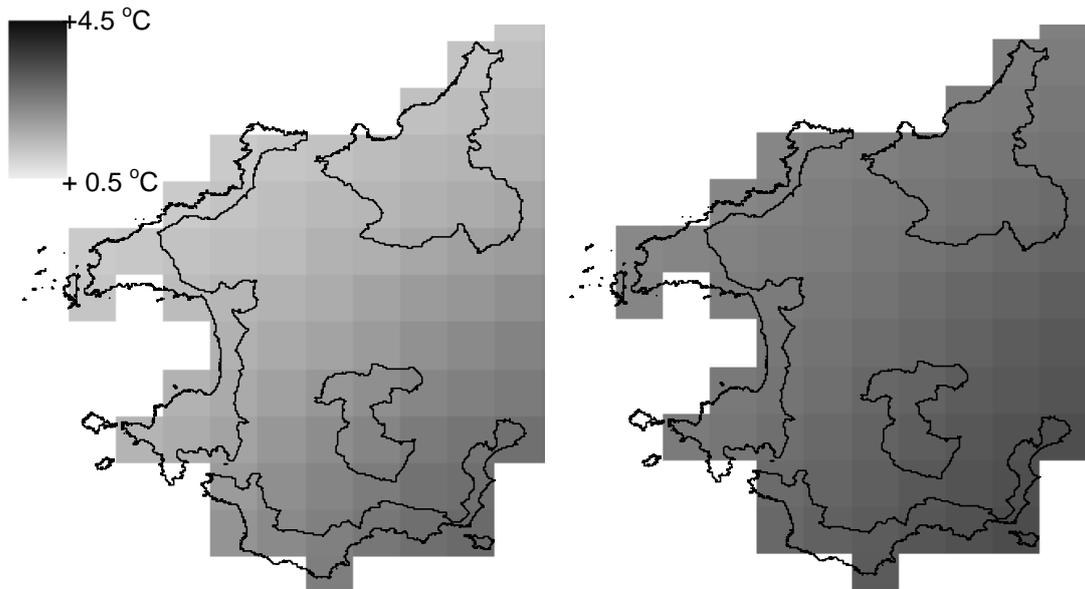
year average temperatures have increased and the 30 year winter rainfall average has increased while the summer average rainfall has decreased.

	Max temperate (°C)			Min temperature (°C)			Rainfall (mm)		
	1961-1990	1971-2000	1981-2010	1961-1990	1971-2000	1981-2010	1961-1990	1971-2000	1981-2010
Tenby (January)	8.1	8.5	8.7	2.9	3.1	3.2	110.2	115.4	113.5
Tenby (July)	19.1	19.5	19.6	11.7	12	12.3	53.9	52.7	68.8
Aberporth (January)	7	7.3	7.6	2.7	2.9	3.1	85.7	88.5	83.7
Aberporth (July)	17.6	18	18.2	11.9	12.2	12.3	51	49.5	61.4

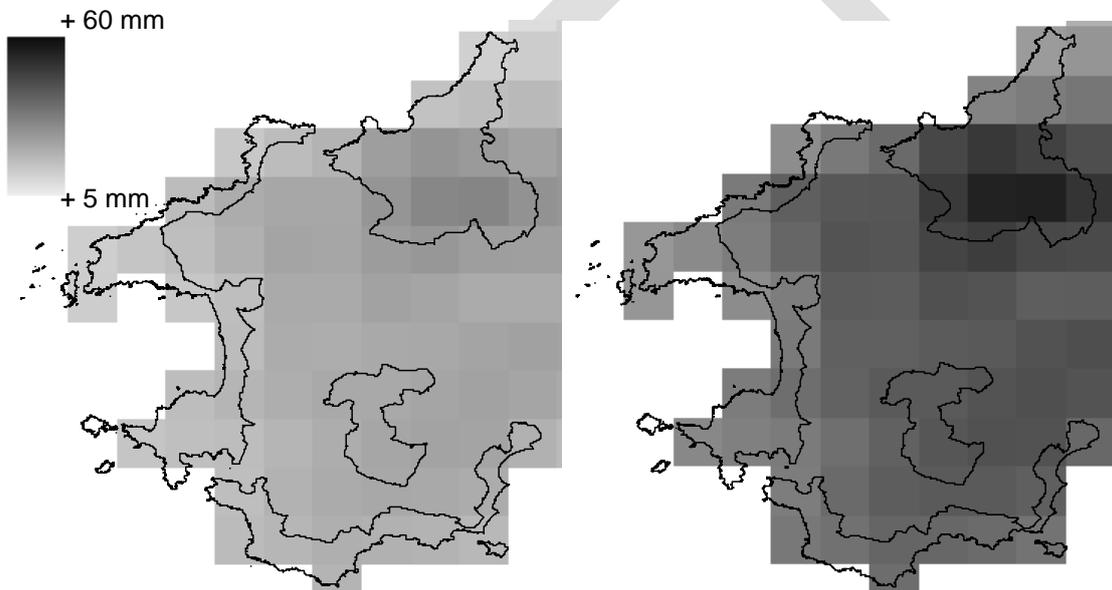
Climate change predictions (the UKCIP02 Climate Change Scenarios) suggest that the trends in temperature and rainfall observed since 1961 are likely to continue. The following maps show predicted changes in the maximum daily July temperature, the minimum daily January temperature between 2000 and the 2080s, and the average total monthly January rainfall and the average total monthly July rainfall between the period 1961-1990 and the 2080s.



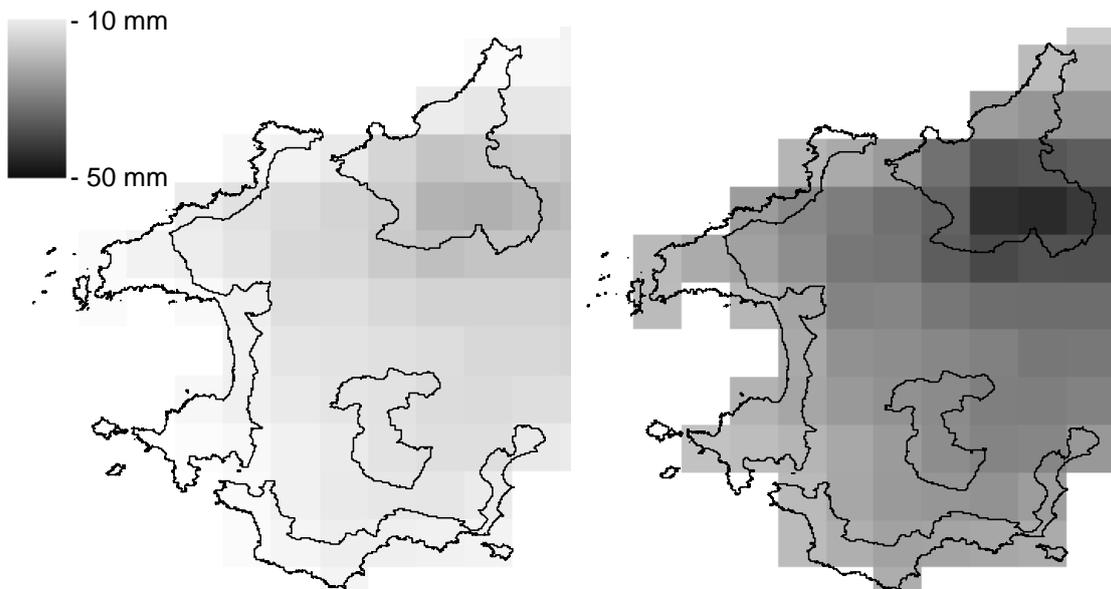
**July max daily temperature change 2000 to 2080 under scenario of low emissions (left) and high emissions (right)**



**January min daily temperature change 2000 to 2080 under scenario of low emissions (left) and high emissions (right)**



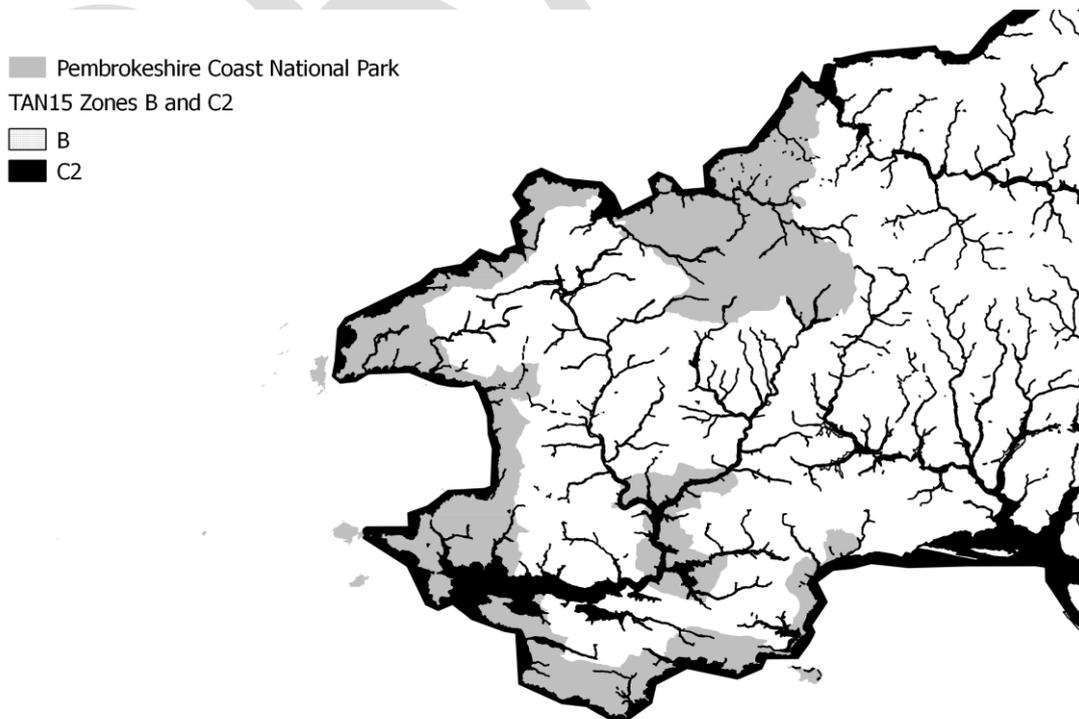
**January average total monthly rainfall change 1961-90 to 2080s under scenario of low emissions (left) and high emissions (right)**



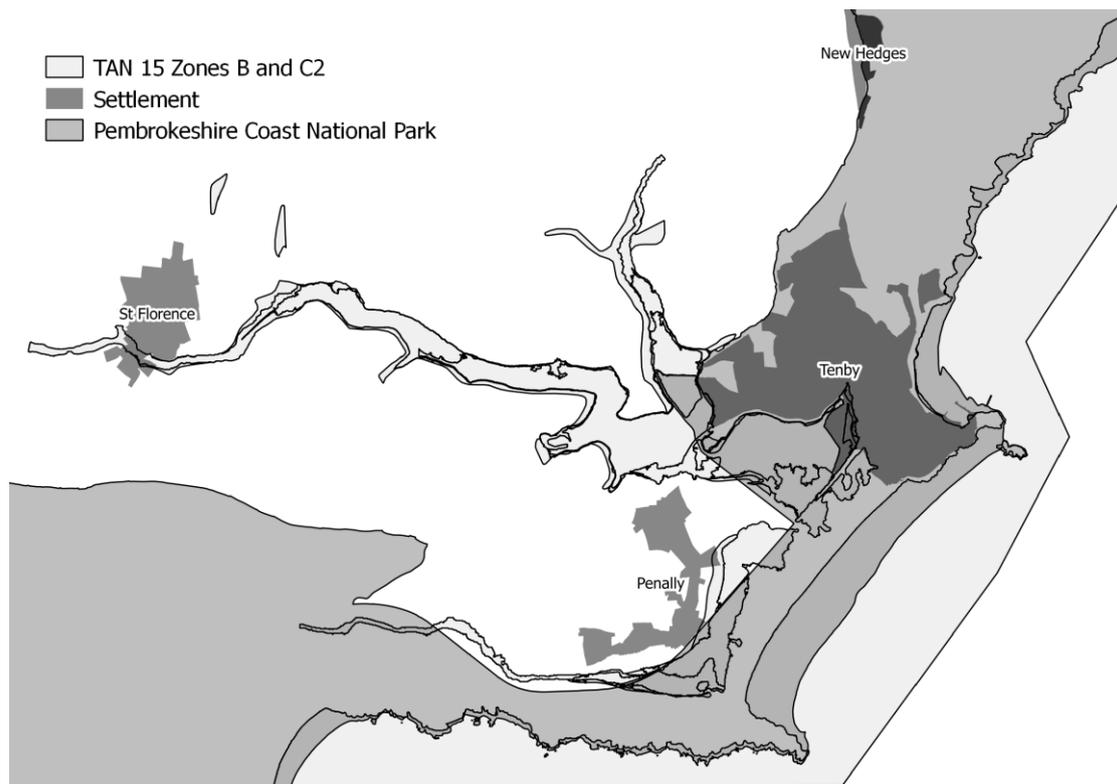
July average total monthly rainfall change 1961-90 to 2080s under scenario of low emissions (left) and high emissions (right)

### Flooding

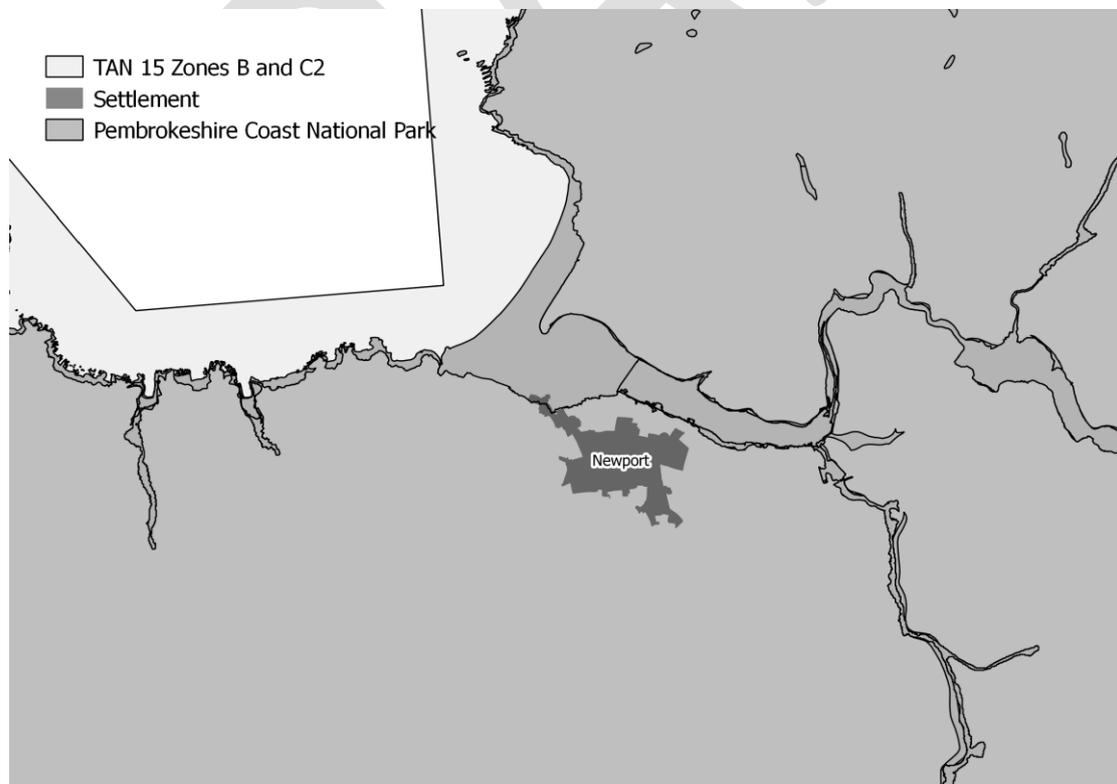
Risk of flooding in the National Park is confined to river valleys and certain low lying coastal areas. Maps of areas at risk of flooding are available on the website of Natural Resources Wales (<http://naturalresourceswales.gov.uk/flooding-and-water/>). Currently around 2% of addresses in the National Park are within areas identified as at risk of flooding by Natural Resources Wales. The Welsh Assembly Government TAN 15 (Development and Flood Risk) defines areas where risk of flooding should be considered in planning matters, these are shown on the following map (the areas around Tenby and Newport are shown in two subsequent maps). TAN 15 zone B identifies areas known to have flooded in the past due to the presence of sedimentary deposits, zone C2 identifies areas at 0.1% or greater risk of flooding, without significant flood defence structures (there are no C1 areas (at risk of flooding, served by flood defences) in the National Park).



TAN 15 flooding zones. Source: Natural Resources Wales (July 2017)



TAN 15 flooding zones in the Tenby area. Source: Natural Resources Wales (July 2017)

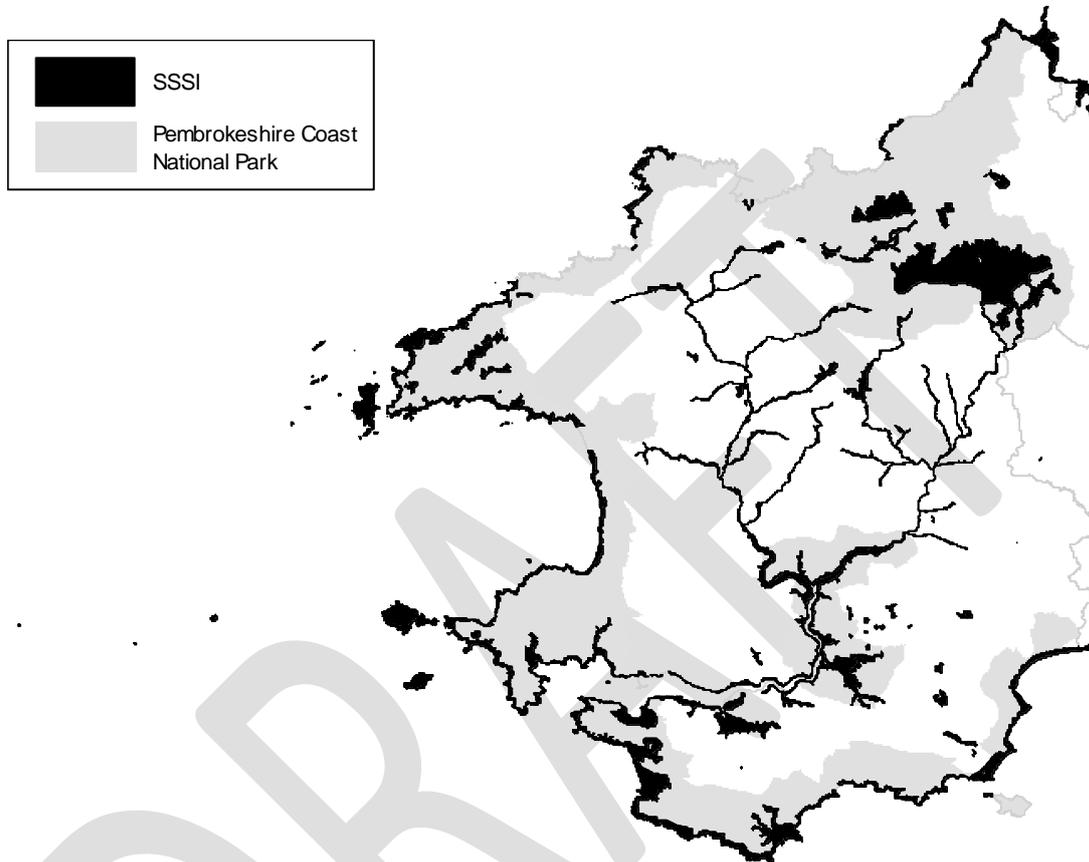


TAN 15 flooding zones in the Newport area. Source: Natural Resources Wales (July 2017)

## Biodiversity

The Pembrokeshire Coast National Park contains, either entirely or in part, 60 Sites of Special Scientific Interest (SSSIs), five Special Protection Areas (SPAs), and 12 Special Areas of Conservation (SACs).

The following map shows the location of SSSIs in and around the Pembrokeshire Coast National Park.



### Natura 2000 sites

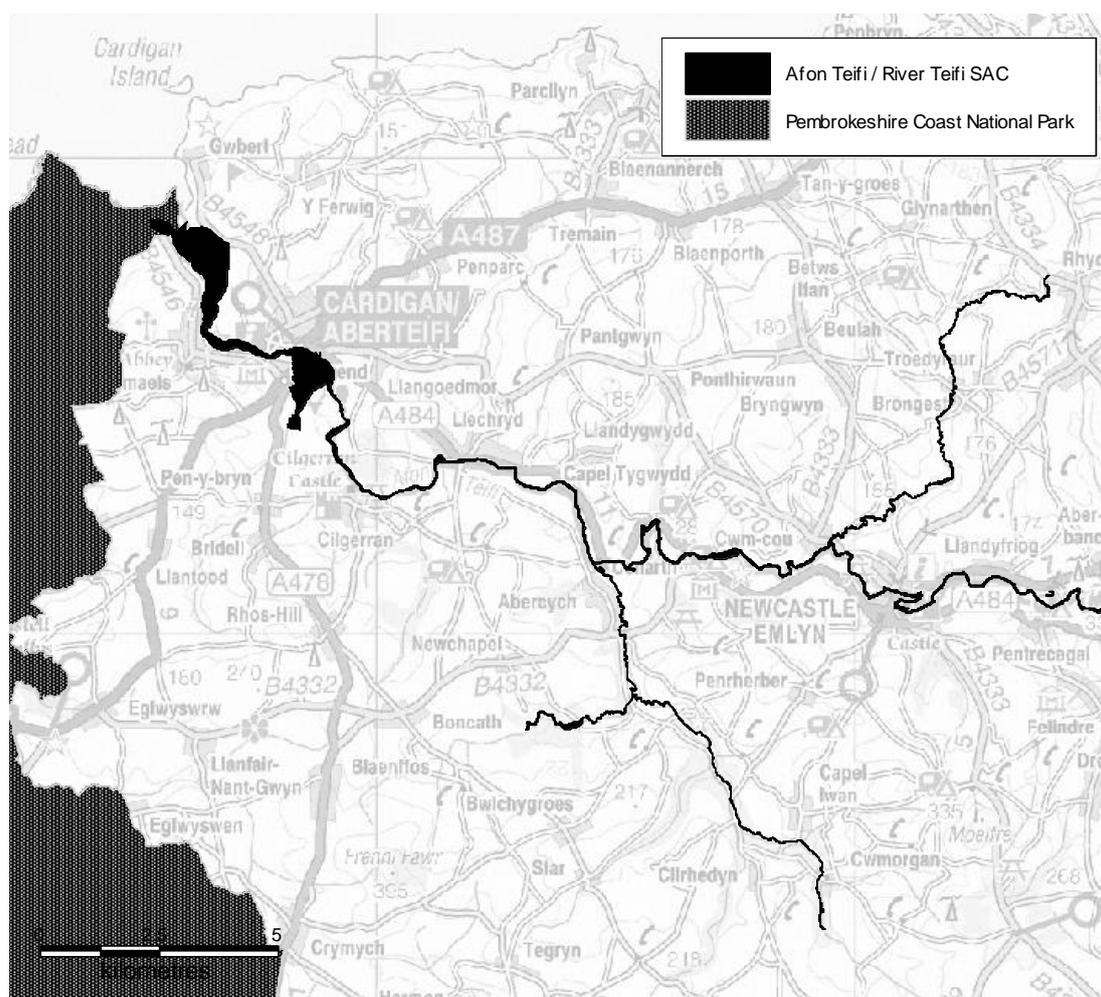
Information on Natura 2000 sites - Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) - has been provided by the Countryside Council for Wales, or obtained from the website of the Joint Nature Conservation Committee. More information on Natura 2000 sites in the area of and surrounding the National Park can be found in the Screening and Appropriate Assessment reports of the Habitat Regulations Assessment of the Pembrokeshire Coast National Park Local Development Plan.

### Special Areas of Conservation

#### UK0012670 Afon Teifi / River Teifi

##### General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (20%); Salt marshes. Salt pastures. Salt steppes (1.7%); Inland water bodies (standing water, running water) (45.1%); Bogs. Marshes. Water fringed vegetation. Fens (8.9%); Heath. Scrub. Maquis and garrigue. Phygrana (2.7%); Humid grassland. Mesophile grassland (1.7%); Improved grassland (7.5%); Broad-leaved deciduous woodland (10.5%); Inland rocks. Screes. Sands. Permanent snow and ice (1.1%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.8%).



Map A1.1: Afon Teifi / River Teifi SAC

Feature	Condition
3260 <a href="#">Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</a>	Favourable: Unclassified
3130 <a href="#">Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i></a>	Favourable: Unclassified
1096 <a href="#">Brook lamprey</a> <i>Lampetra planeri</i>	Unfavourable: Recovered
1099 <a href="#">River lamprey</a> <i>Lampetra fluviatilis</i>	Unfavourable: Recovered
1106 <a href="#">Atlantic salmon</a> <i>Salmo salar</i>	Unfavourable: No change
1163 <a href="#">Bullhead</a> <i>Cottus gobio</i>	Unfavourable: Unclassified
1355 <a href="#">Otter</a> <i>Lutra lutra</i>	Favourable: maintained
1831 <a href="#">Floating water-plantain</a> <i>Luronium natans</i>	Favourable: maintained
1095 <a href="#">Sea lamprey</a> <i>Petromyzon marinus</i>	Unfavourable: Unclassified
3260 <a href="#">Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</a>	Favourable: Maintained
7110 <a href="#">Active raised bogs</a>	Unfavourable: Un-classified
91E0 <a href="#">Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus</i></a>	Unfavourable: Un-classified

Feature	Condition
<a href="#">excelsior (Alno-Padion, Alnion incanae, Salicion albae)</a>	

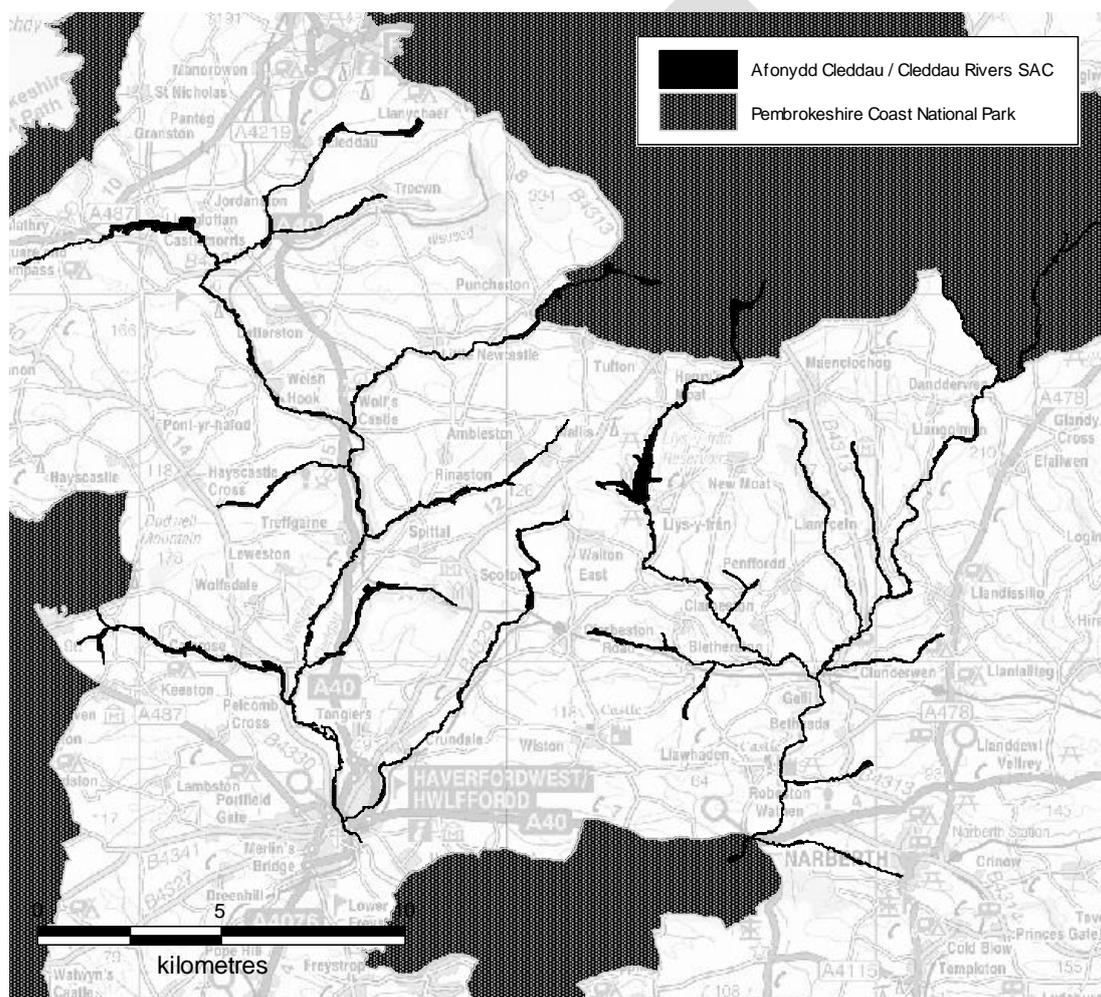
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012670>

#### UK0030074 Afonydd Cleddau / Cleddau Rivers

General site character

Inland water bodies (standing water, running water) (26%); Bogs. Marshes. Water fringed vegetation. Fens (17%); Heath. Scrub. Maquis and garrigue. Phygrana (17%); Dry grassland. Steppes (2%); Improved grassland (9%); Other arable land (0.3%); Broad-leaved deciduous woodland (26%); Coniferous woodland (2%); Mixed woodland (0.2%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%).



Map A1.2 Afonydd Cleddau / Cleddau Rivers SAC

Feature	Condition
3260 <a href="#">Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</a>	Favourable: Maintained
3130 <a href="#">Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i></a>	Favourable: Unclassified

Feature	Condition
1096 <a href="#">Brook lamprey</a> <i>Lampetra planeri</i>	Unfavourable: Recovering
1099 <a href="#">River lamprey</a> <i>Lampetra fluviatilis</i>	Unfavourable: Recovering
1106 <a href="#">Atlantic salmon</a> <i>Salmo salar</i>	Unfavourable: Unclassified
1163 <a href="#">Bullhead</a> <i>Cottus gobio</i>	Unfavourable: Unclassified
1355 <a href="#">Otter</a> <i>Lutra lutra</i>	Favourable: maintained
1831 <a href="#">Floating water-plantain</a> <i>Luronium natans</i>	Favourable: maintained
1095 <a href="#">Sea lamprey</a> <i>Petromyzon marinus</i>	Unfavourable: Declining
3260 <a href="#">Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</a>	Favourable: Maintained
7110 <a href="#">Active raised bogs</a>	Unfavourable: Declining
91E0 <a href="#">Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)</a>	Unfavourable: Un-classified

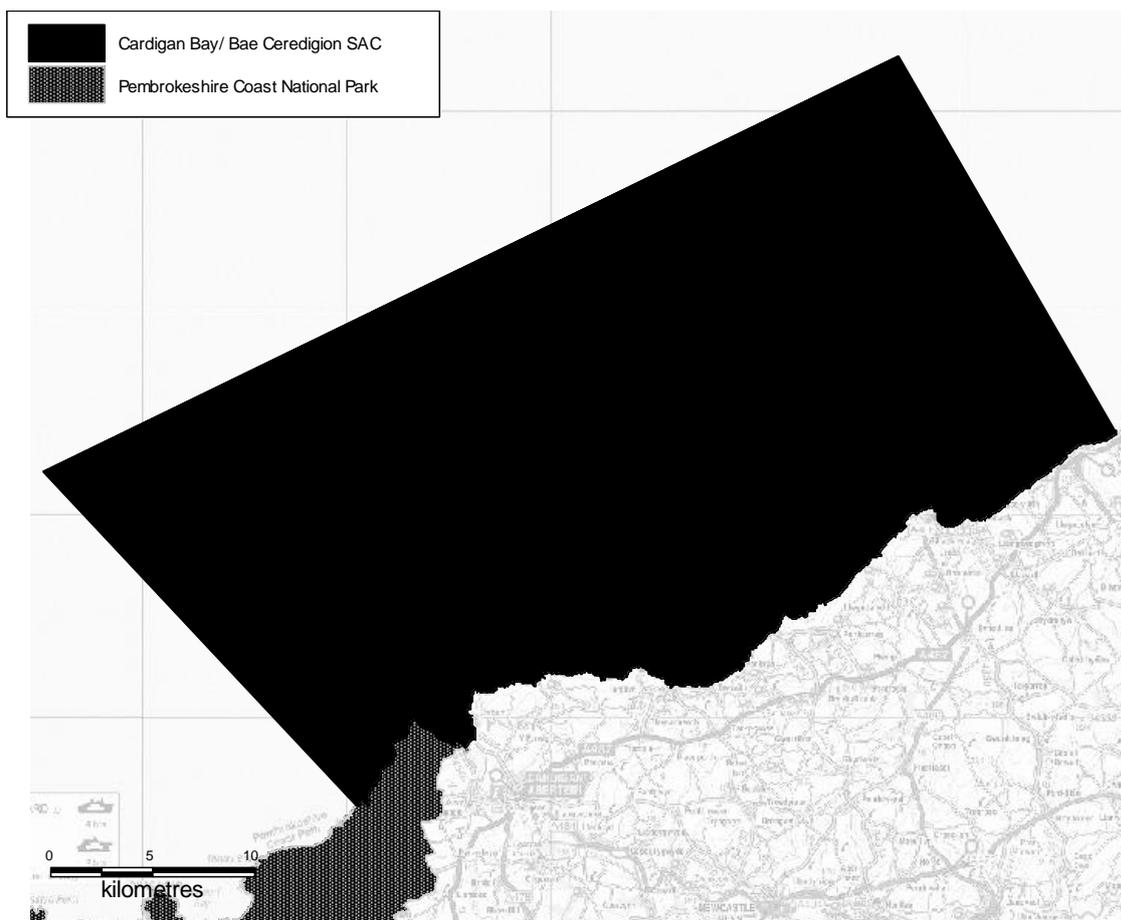
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030074>

UK0012712 Cardigan Bay / Bae Ceredigion

General site character

Marine areas. Sea inlets (99.5%); Coastal sand dunes. Sand beaches. Machair (0.01%); Shingle. Sea cliffs. Islets (0.39%); Inland water bodies (standing water, running water) (0.01%); Heath. Scrub. Maquis and garrigue. Phygrana (0.07%); Broad-leaved deciduous woodland (0.02%).



Map A1.3 Cardigan Bay/ Bae Ceredigion SAC

Feature	Condition
1110 <a href="#">Sandbanks which are slightly covered by sea water all the time</a>	Unfavourable
1170 <a href="#">Reefs</a>	Unfavourable
8330 <a href="#">Submerged or partially submerged sea caves</a>	Favourable
1349 <a href="#">Bottlenose dolphin</a> <i>Tursiops truncatus</i>	Favourable
1095 <a href="#">Sea lamprey</a> <i>Petromyzon marinus</i>	Unfavourable
1099 <a href="#">River lamprey</a> <i>Lampetra fluviatilis</i>	Unfavourable
1364 <a href="#">Grey seal</a> <i>Halichoerus grypus</i>	Favourable: Declining

**condition and trend information is provisional**

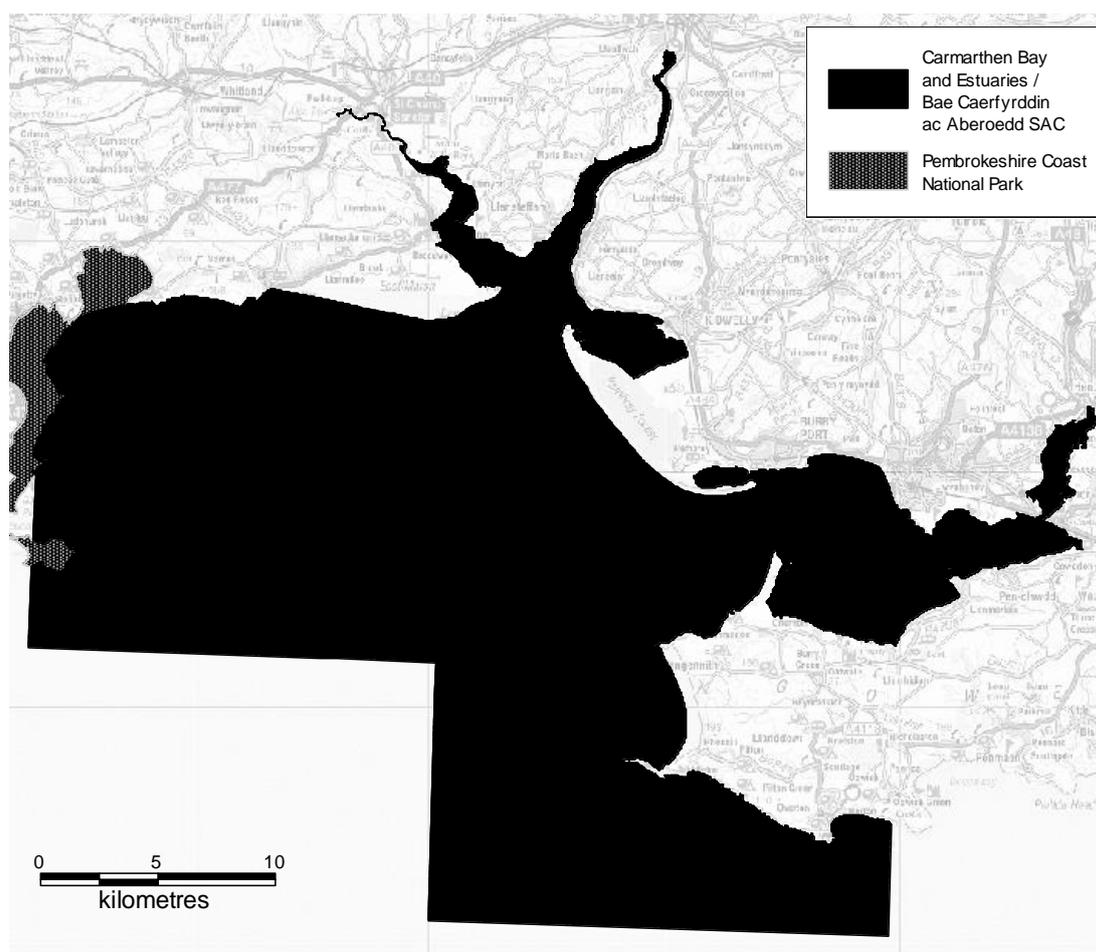
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012712>

UK0020020 Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd

General site character

Marine areas. Sea inlets (82.1%); Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (13.7%); Salt marshes. Salt pastures. Salt steppes (4.1%); Shingle. Sea cliffs. Islets (0.1%).



Map A1.4: Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC

Feature	Condition
1110 <a href="#">Sandbanks which are slightly covered by sea water all the time</a>	Favourable
1130 <a href="#">Estuaries</a>	Favourable
1140 <a href="#">Mudflats and sandflats not covered by seawater at low tide</a>	Favourable
1160 <a href="#">Large shallow inlets and bays</a>	Favourable
1310 <a href="#">Salicornia and other annuals colonising mud and sand</a>	Favourable
1330 <a href="#">Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</a>	Unfavourable
1103 <a href="#">Twaite shad</a> <i>Alosa fallax</i>	Unfavourable: No Change
1095 <a href="#">Sea lamprey</a> <i>Petromyzon marinus</i>	Unfavourable
1099 <a href="#">River lamprey</a> <i>Lampetra fluviatilis</i>	Unfavourable
1102 <a href="#">Allis shad</a> <i>Alosa alosa</i>	Unfavourable: No Change
1355 <a href="#">Otter</a> <i>Lutra lutra</i>	Favourable

condition and trend information is provisional

More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0020020>

## UK0030144 Gweunydd Blaencleddau

### General site character

Bogs. Marshes. Water fringed vegetation. Fens (19%); Heath. Scrub. Maquis and garrigue. Phygrana (10%); Dry grassland. Steppes (1.5%); Humid grassland. Mesophile grassland (54.5%); Improved grassland (5%); Broad-leaved deciduous woodland (9.5%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%).



Map A1.5: Gweunydd Blaencleddau SAC

Feature	Condition
4010 <a href="#">Northern Atlantic wet heaths with <i>Erica tetralix</i></a>	Unfavourable: Recovering
7130 <a href="#">Blanket bogs</a>	Unfavourable: Recovering
6410 Molinia Meadows	Unfavourable: Declining
7140 <a href="#">Transition mires and quaking bogs</a>	Unfavourable: No change
7230 <a href="#">Alkaline fens</a>	Favourable: Maintained
1065 <a href="#">Marsh fritillary butterfly</a> <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	Unfavourable
1044 <a href="#">Southern damselfly</a> <i>Coenagrion mercuriale</i>	Unfavourable: Unclassified

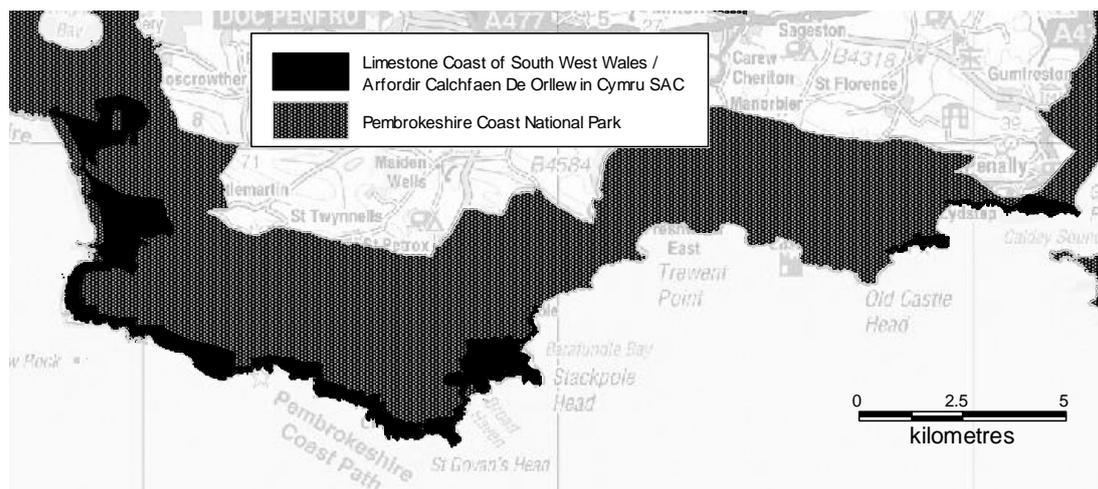
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030144>

UK0014787 Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru

General site character

Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (15%); Coastal sand dunes. Sand beaches. Machair (27%); Shingle. Sea cliffs. Islets (22%); Inland water bodies (standing water, running water) (1%); Bogs. Marshes. Water fringed vegetation. Fens (1%); Heath. Scrub. Maquis and garrigue. Phygrana (14%); Dry grassland. Steppes (2%); Humid grassland. Mesophile grassland (10%); Broad-leaved deciduous woodland (1%); Coniferous woodland (1%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (6%).



**Map A1.6 Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru SAC (the SAC also includes sections of the Gower coast between Worm's Head and Pwlldu Head)**

Feature	Condition
1230 <a href="#">Vegetated sea cliffs of the Atlantic and Baltic coasts</a>	Unfavourable: Un-classified
2130 <a href="#">Fixed dunes with herbaceous vegetation ('grey dunes')</a>	Favourable
4030 <a href="#">European dry heaths</a>	Unfavourable: Unclassified
6210 <a href="#">Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)</a>	Unfavourable: Un-classified
8310 <a href="#">Caves not open to the public</a>	Favourable
8330 <a href="#">Submerged or partially submerged sea caves</a>	Favourable: Maintained
1304 <a href="#">Greater horseshoe bat</a> <i>Rhinolophus ferrumequinum</i>	Favourable
1654 <a href="#">Early gentian</a> <i>Gentianella anglica</i>	Unfavourable: No-change
1395 <a href="#">Petalwort</a> <i>Petalophyllum ralfsii</i>	Favourable: Maintained

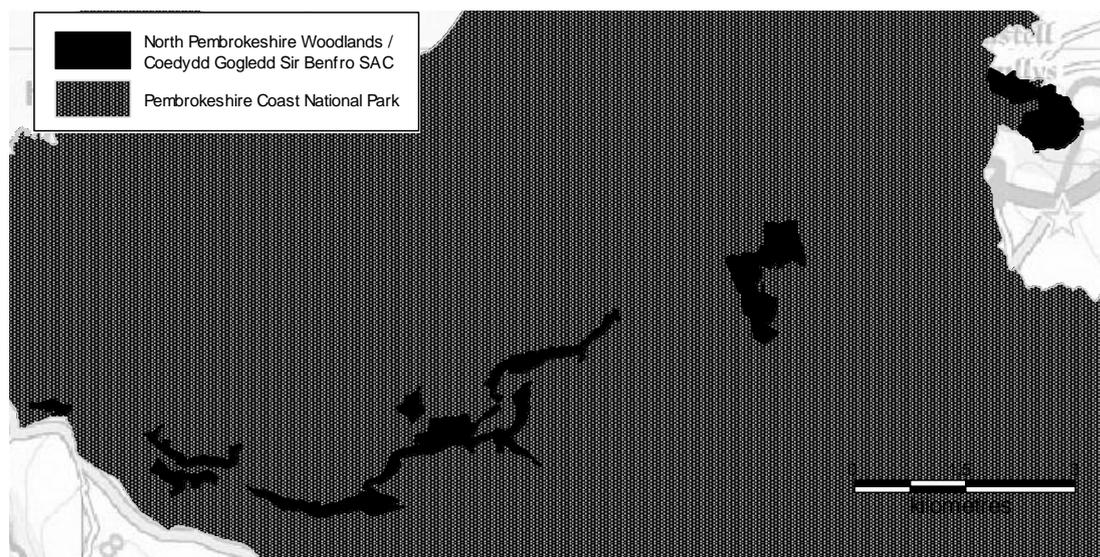
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0014787>

UK0030227 North Pembrokeshire Woodlands / Coedydd Gogledd Sir Benfro

General site character

Inland water bodies (standing water, running water) (0.3%); Bogs. Marshes. Water fringed vegetation. Fens (0.6%); Heath. Scrub. Maquis and garrigue. Phygrana (13%); Dry grassland. Steppes (3%); Humid grassland. Mesophile grassland (9%); Broad-leaved deciduous woodland (70%); Inland rocks. Screes. Sands. Permanent snow and ice (0.1%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (4%).



Map A1.7 Pembrokeshire Woodlands / Coedydd Gogledd Sir Benfro SAC

Feature	Condition
91A0 <a href="#">Old sessile oak woods with Ilex and Blechnum in the British Isles</a>	Unfavourable: Declining
91E0 <a href="#">Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</a>	Favourable: Maintained
1308 <a href="#">Barbastelle</a> <i>Barbastella barbastellus</i>	Favourable: Un-classified

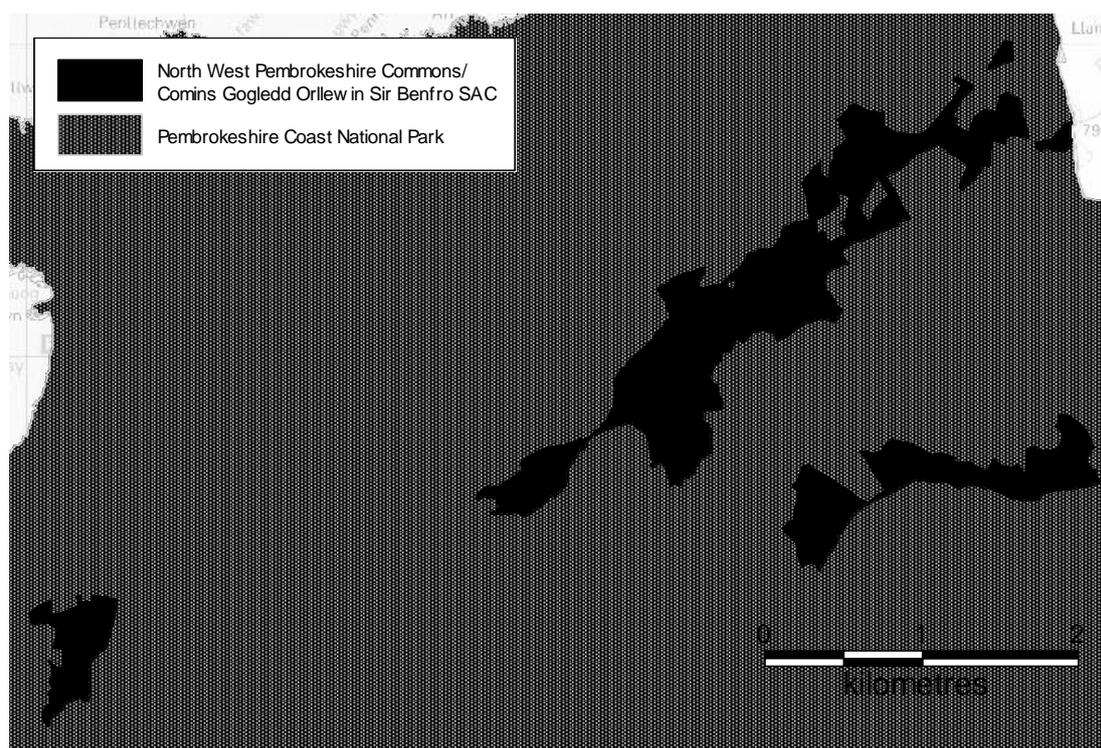
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030227>

UK0030229 North West Pembrokeshire Commons / Comin Gogledd Orllewin Sir Benfro

General site character

Inland water bodies (standing water, running water) (0.3%); Bogs. Marshes. Water fringed vegetation. Fens (14.4%); Heath. Scrub. Maquis and garrigue. Phygrana (29.7%); Dry grassland. Steppes (0.2%); Humid grassland. Mesophile grassland (42%); Improved grassland (0.4%); Broad-leaved deciduous woodland (11.6%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (1.4%).



Map A1.8: North West Pembrokeshire Commons/ Comins Gogledd Orllew in Sir Benfro SAC

Feature	Condition
4030 <a href="#">European dry heaths</a>	Unfavourable: No-change
7140 <a href="#">Transition mires and quaking bogs</a>	Unfavourable: No-change
4010 <a href="#">Northern Atlantic wet heaths with <i>Erica tetralix</i></a>	Unfavourable: Recovering
1831 <a href="#">Floating water-plantain</a> <i>Luronium natans</i>	Unfavourable: Un-classified

More information:

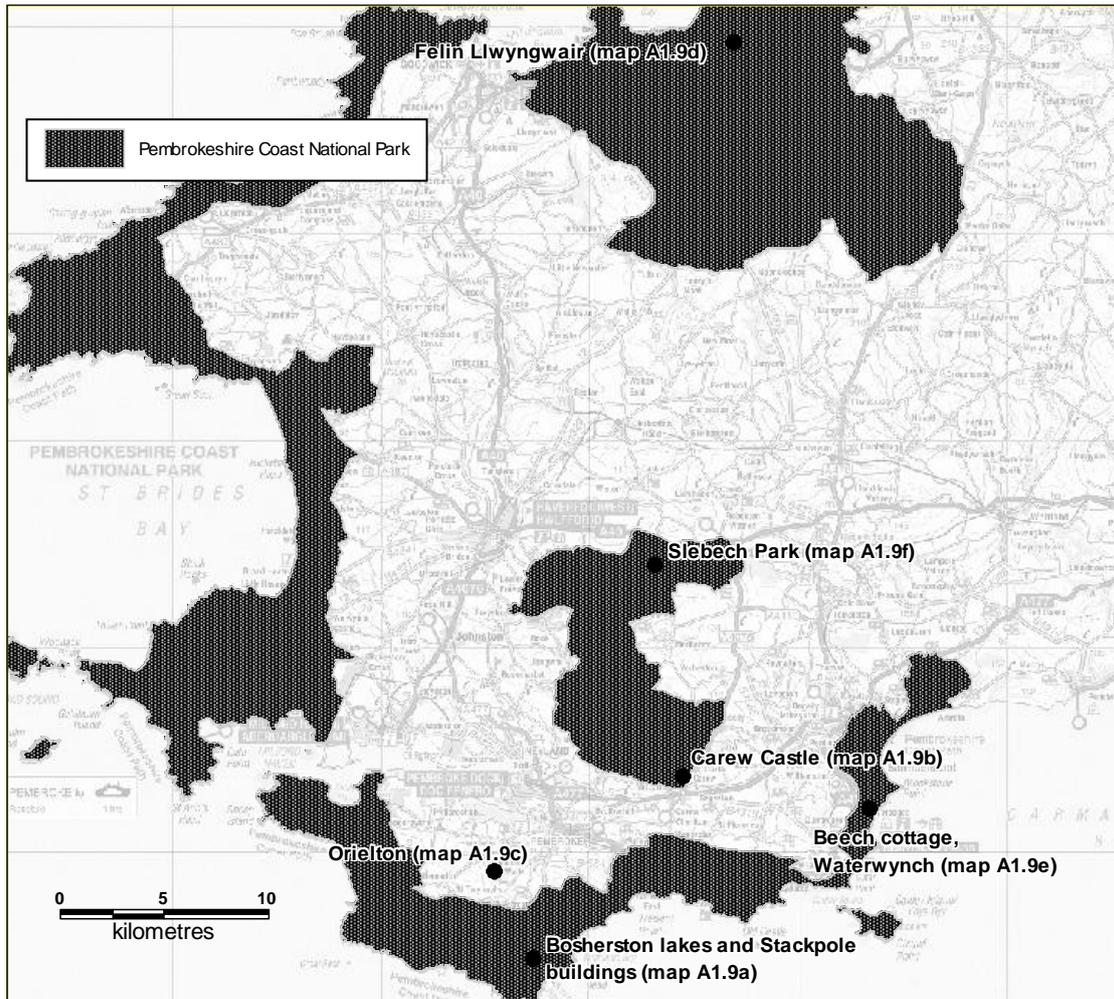
<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030229>

[UK0014793 Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystum Sir Benfro a Llynnoedd Bosherton](#)

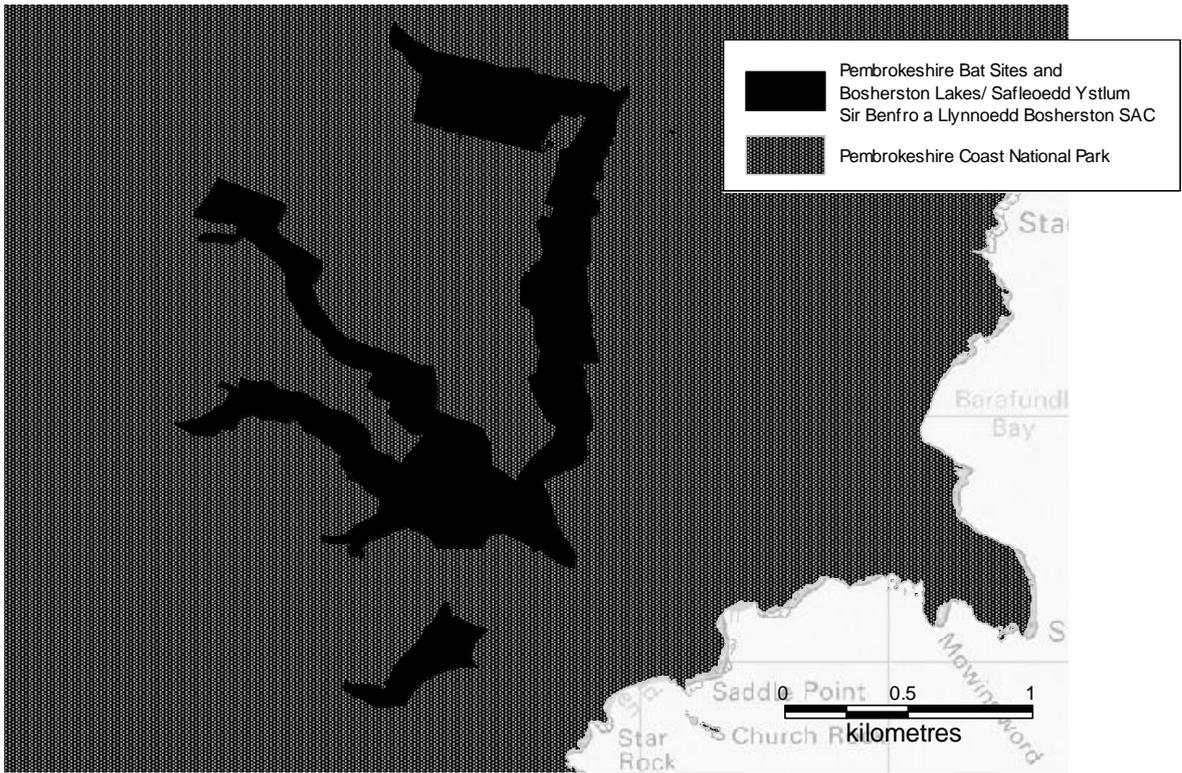
#### General site character

Inland water bodies (standing water, running water) (33%); Bogs. Marshes. Water fringed vegetation. Fens (5%); Heath. Scrub. Maquis and garrigue. Phygrana (13%); Dry grassland. Steppes (3%); Improved grassland (1.8%); Broad-leaved deciduous woodland (29%); Mixed woodland (15%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.2%).

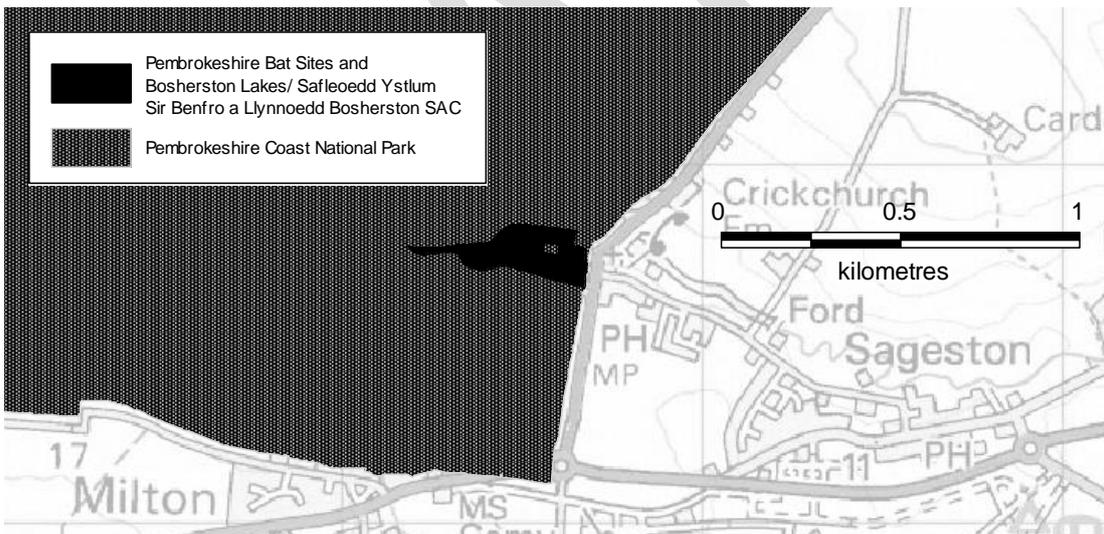
This SAC is comprised of a number of separate sites: Bosherton Lakes; Park House Outbuildings, Stackpole; Stackpole Courtyard Flats and Walled Garden; Felin Llwyngwair; Carew Castle; Beech cottage, Waterwynch; Slebech Stable Yard Loft, Cellars and Tunnels; and Orierton (outside the National Park).



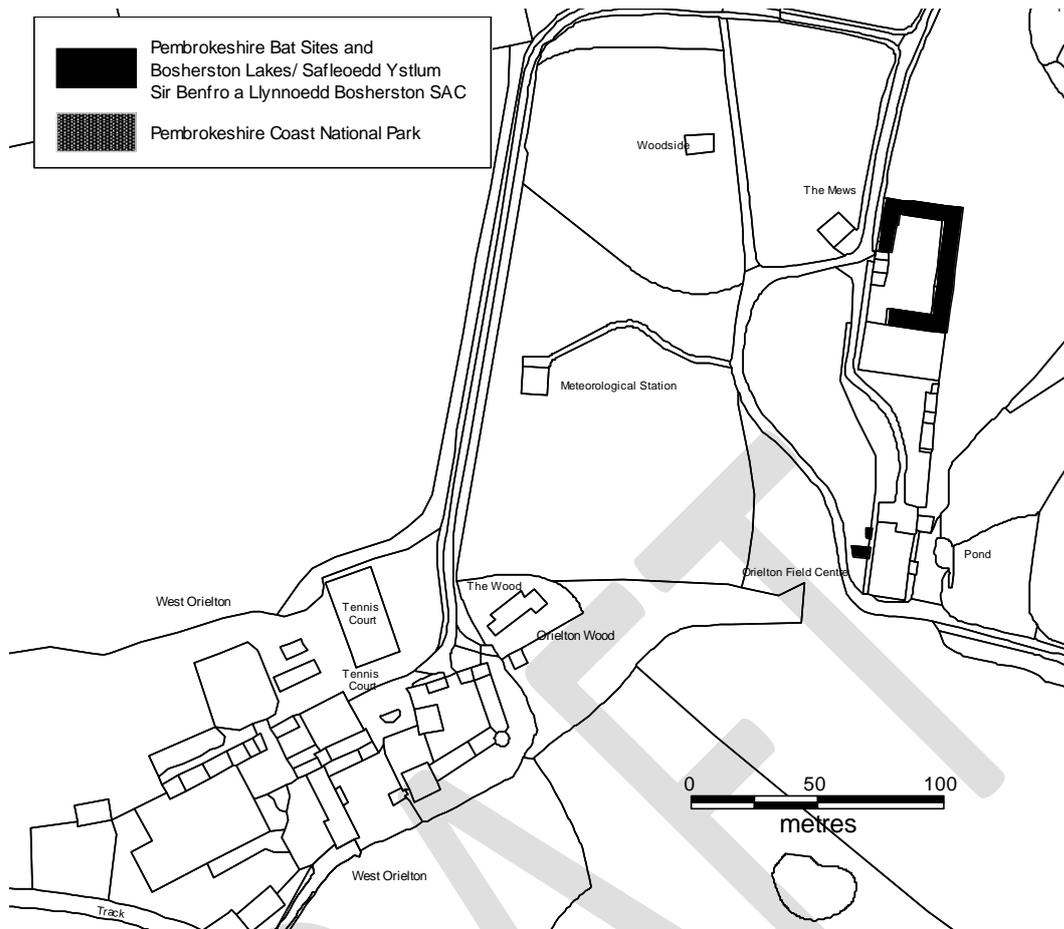
**Map A1.9: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



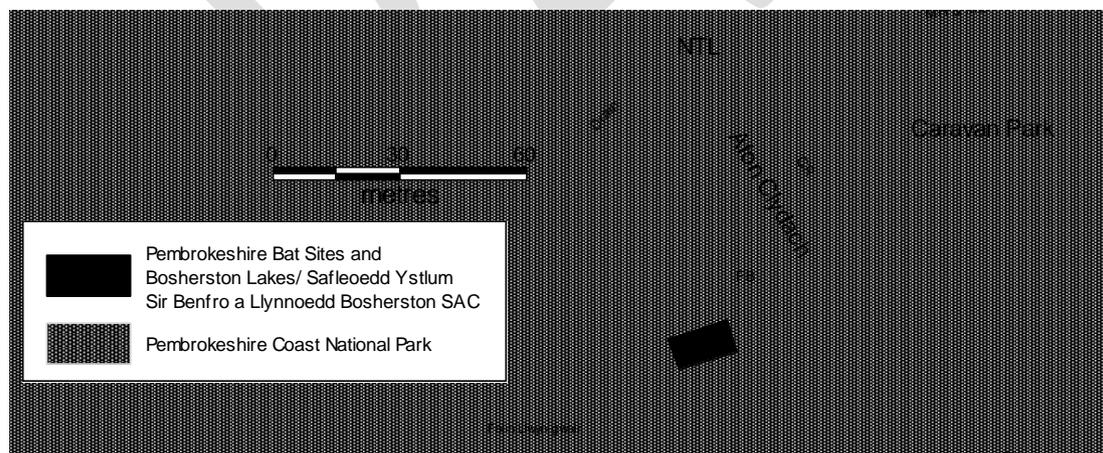
**Map A1.9a: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



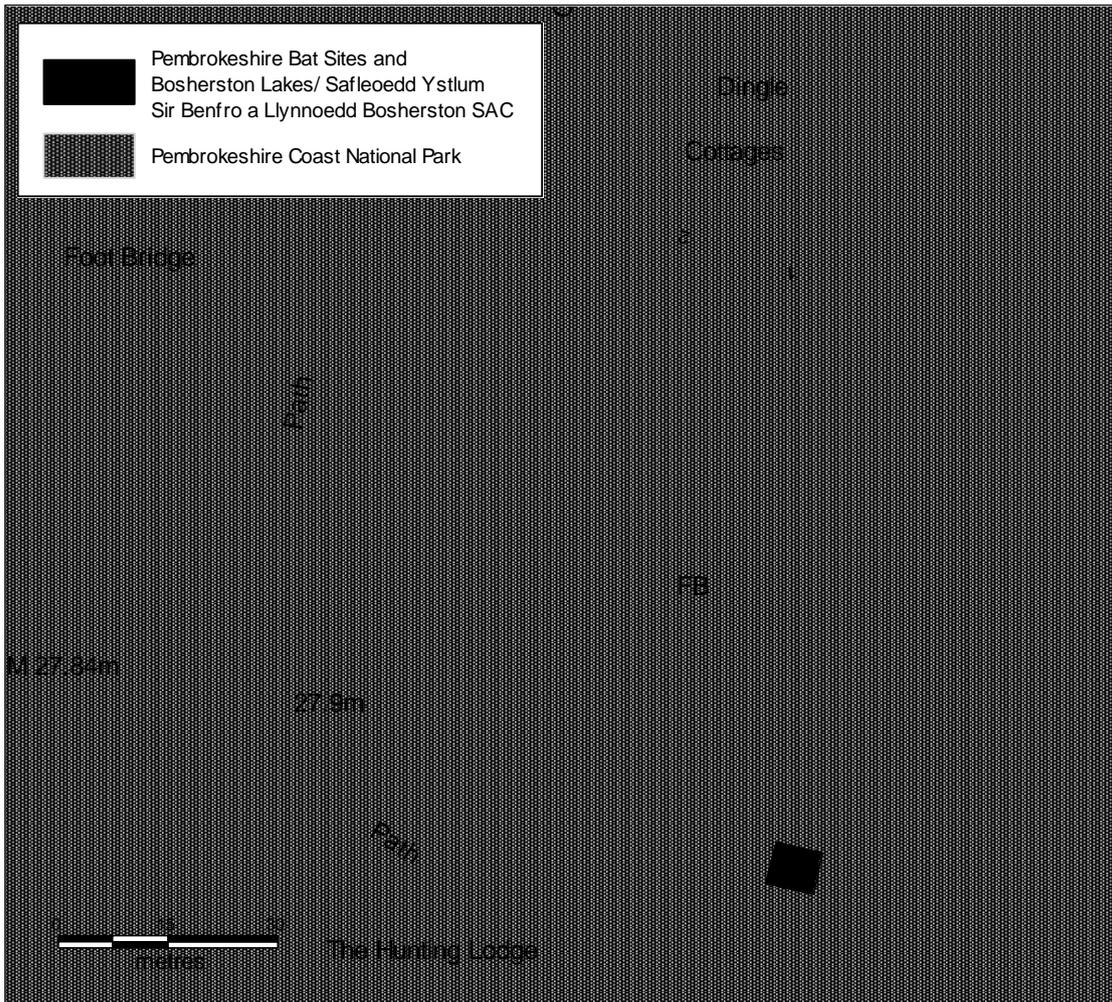
**Map A1.9b: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



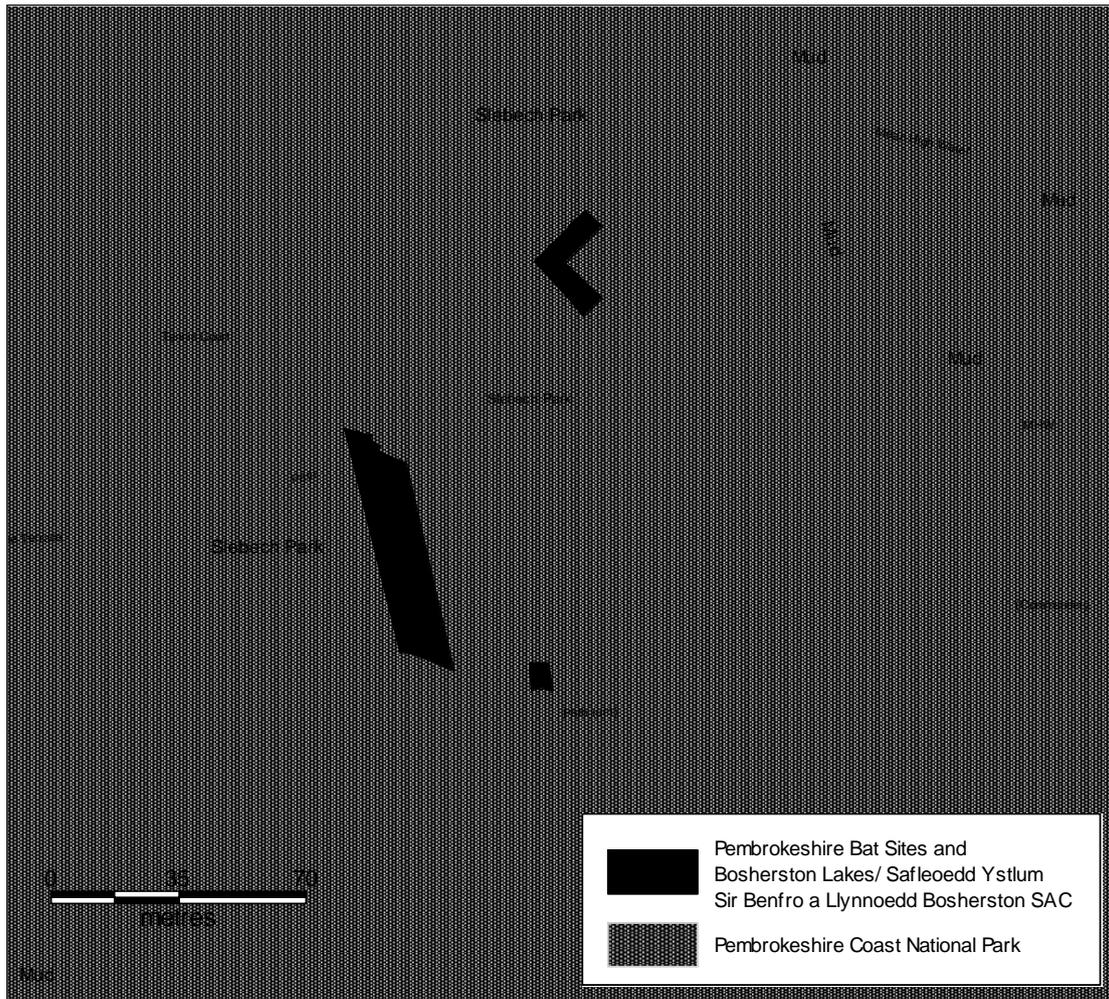
**Map A1.9c: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



**Map A1.9d: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



**Map 1.9e: Pembrokehire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**



**Map 1.9f: Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC**

Feature	Condition
3140 <a href="#">Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara spp.</i></a>	Unfavourable: Declining
1304 <a href="#">Greater horseshoe bat</a> <i>Rhinolophus ferrumequinum</i>	Favourable: Maintained
1303 <a href="#">Lesser horseshoe bat</a> <i>Rhinolophus hipposideros</i>	Unfavourable: Declining
1355 <a href="#">Otter</a> <i>Lutra lutra</i>	Unfavourable: Un-classified

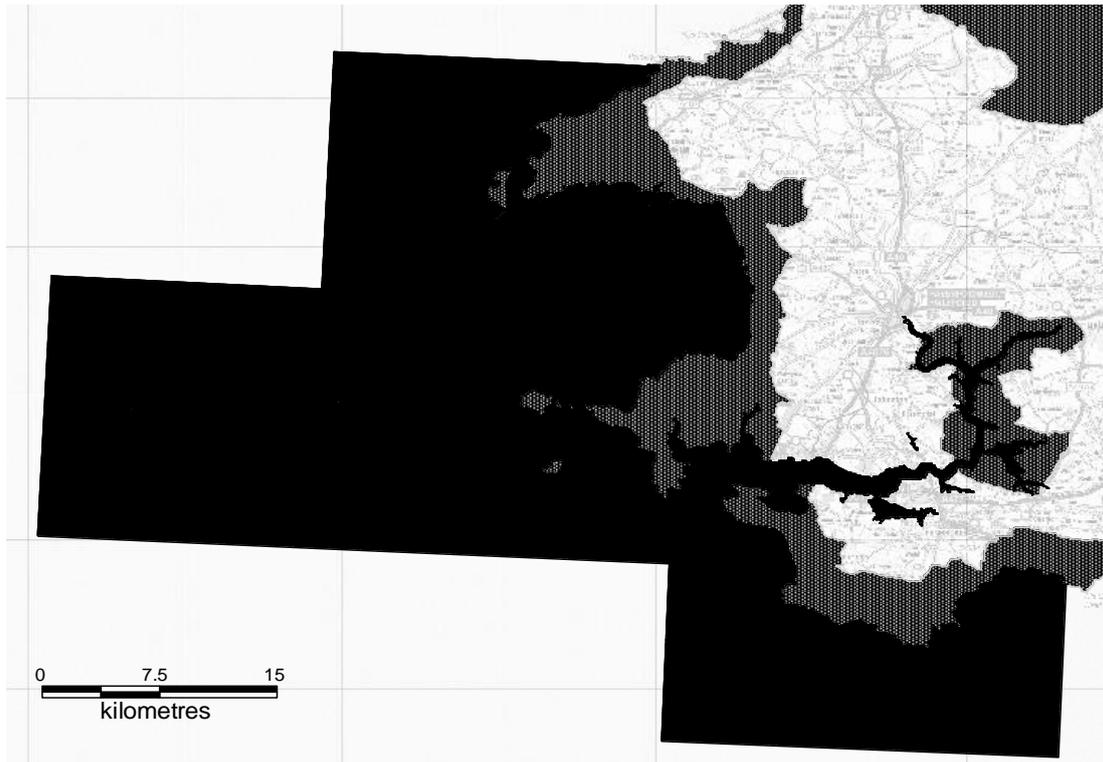
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0014793>

[UK0013116 Pembrokeshire Marine / Sir Benfro Forol](#)

General site character

Marine areas. Sea inlets (96%); Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (3.8%); Salt marshes. Salt pastures. Salt steppes (0.2%).



Map A1.10 Pembrokehire Marine/ Sir Benfro Forol SAC

Feature	Condition
1130 <a href="#">Estuaries</a>	Unfavourable: Declining
1160 <a href="#">Large shallow inlets and bays</a>	Unfavourable: Declining
1170 <a href="#">Reefs</a>	Unfavourable: No Change
1110 <a href="#">Sandbanks which are slightly covered by sea water all the time</a>	Unfavourable: No Change
1140 <a href="#">Mudflats and sandflats not covered by seawater at low tide</a>	Unfavourable: Declining
1150 <a href="#">Coastal lagoons</a>	Favourable
1330 <a href="#">Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</a>	Unfavourable: Declining
8330 <a href="#">Submerged or partially submerged sea caves</a>	Favourable
1364 <a href="#">Grey seal</a> <i>Halichoerus grypus</i>	Unfavourable: No Change
1441 <a href="#">Shore dock</a> <i>Rumex rupestris</i>	Favourable
1095 <a href="#">Sea lamprey</a> <i>Petromyzon marinus</i>	Unfavourable: Declining
1099 <a href="#">River lamprey</a> <i>Lampetra fluviatilis</i>	Unfavourable
1102 <a href="#">Allis shad</a> <i>Alosa alosa</i>	No Data
1103 <a href="#">Twaite shad</a> <i>Alosa fallax</i>	No Data
1355 <a href="#">Otter</a> <i>Lutra lutra</i>	Favourable

condition and trend information is provisional

More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0013116>

## UK0012598 Preseli

### General site character

Bogs. Marshes. Water fringed vegetation. Fens (36%); Heath. Scrub. Maquis and garrigue. Phygrana (31%); Dry grassland. Steppes (32%); Inland rocks. Screes. Sands. Permanent snow and ice (1%).



Map A1.11 Preseli SAC

Feature	Condition
4010 <a href="#">Northern Atlantic wet heaths with <i>Erica tetralix</i></a>	Unfavourable: Un-classified
4030 <a href="#">European dry heaths</a>	Unfavourable: Un-classified
7150 <a href="#">Depressions on peat substrates of the <i>Rhynchosporion</i></a>	Unfavourable: Declining
7230 <a href="#">Alkaline fens</a>	Favourable: Un-classified
1044 <a href="#">Southern damselfly</a> <i>Coenagrion mercuriale</i>	Unfavourable: Unclassified
1065 <a href="#">Marsh fritillary butterfly</a> <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	Unfavourable: Un-classified
1393 <a href="#">Slender green feather-moss</a> <i>Drepanocladus (Hamatocaulis) vernicosus</i>	Favourable: Maintained

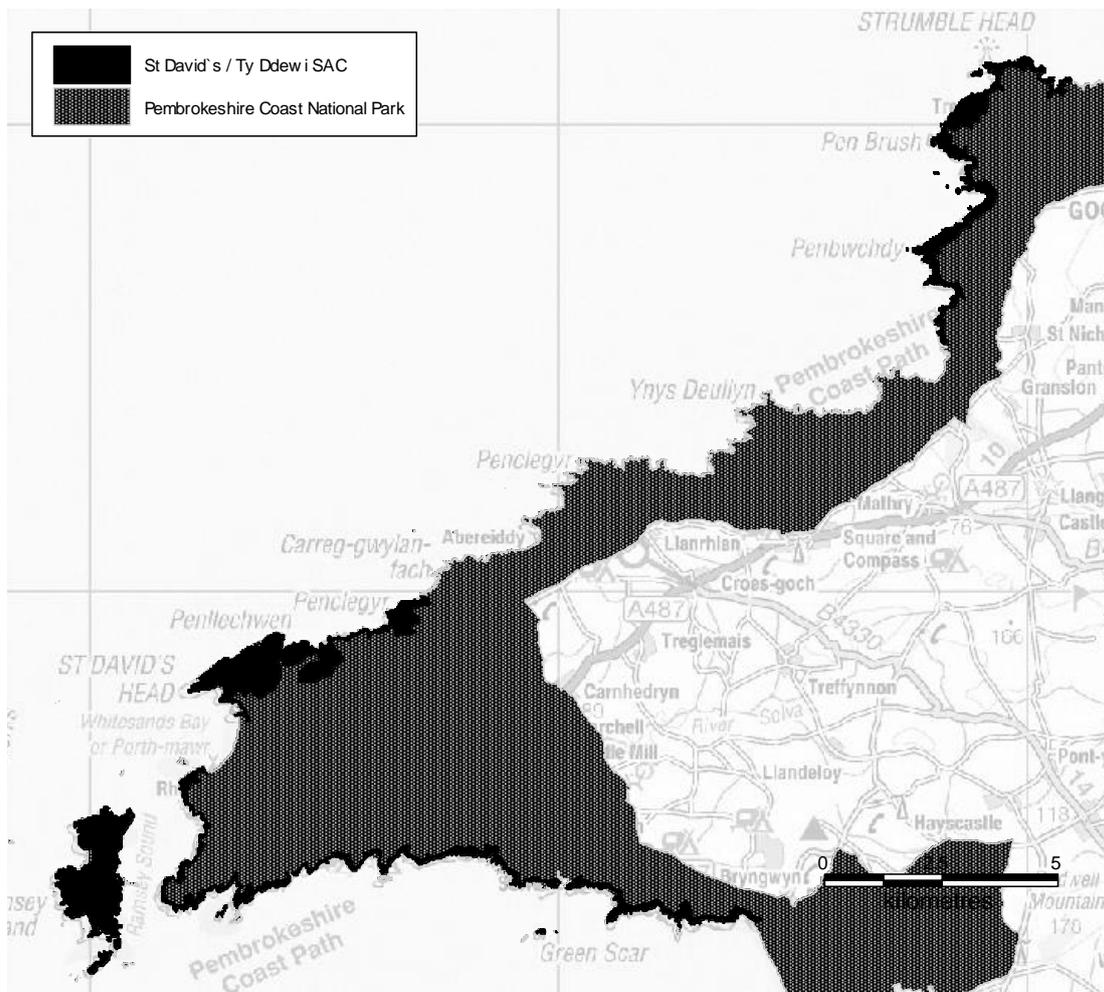
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCODE=UK0012598>

## UK0013045 St David's / Ty Ddewi

### General site character

Marine areas. Sea inlets (12%); Coastal sand dunes. Sand beaches. Machair (1%); Shingle. Sea cliffs. Islets (86%); Bogs. Marshes. Water fringed vegetation. Fens (1%).



Map A1.12 St David's / Ty Ddewi SAC

Feature	Condition
1230 <a href="#">Vegetated sea cliffs of the Atlantic and Baltic coasts</a>	Unfavourable: Recovering
4030 <a href="#">European dry heaths</a>	Unfavourable: Recovering
1831 <a href="#">Floating water-plantain</a> <i>Luronium natans</i>	Favourable: Maintained

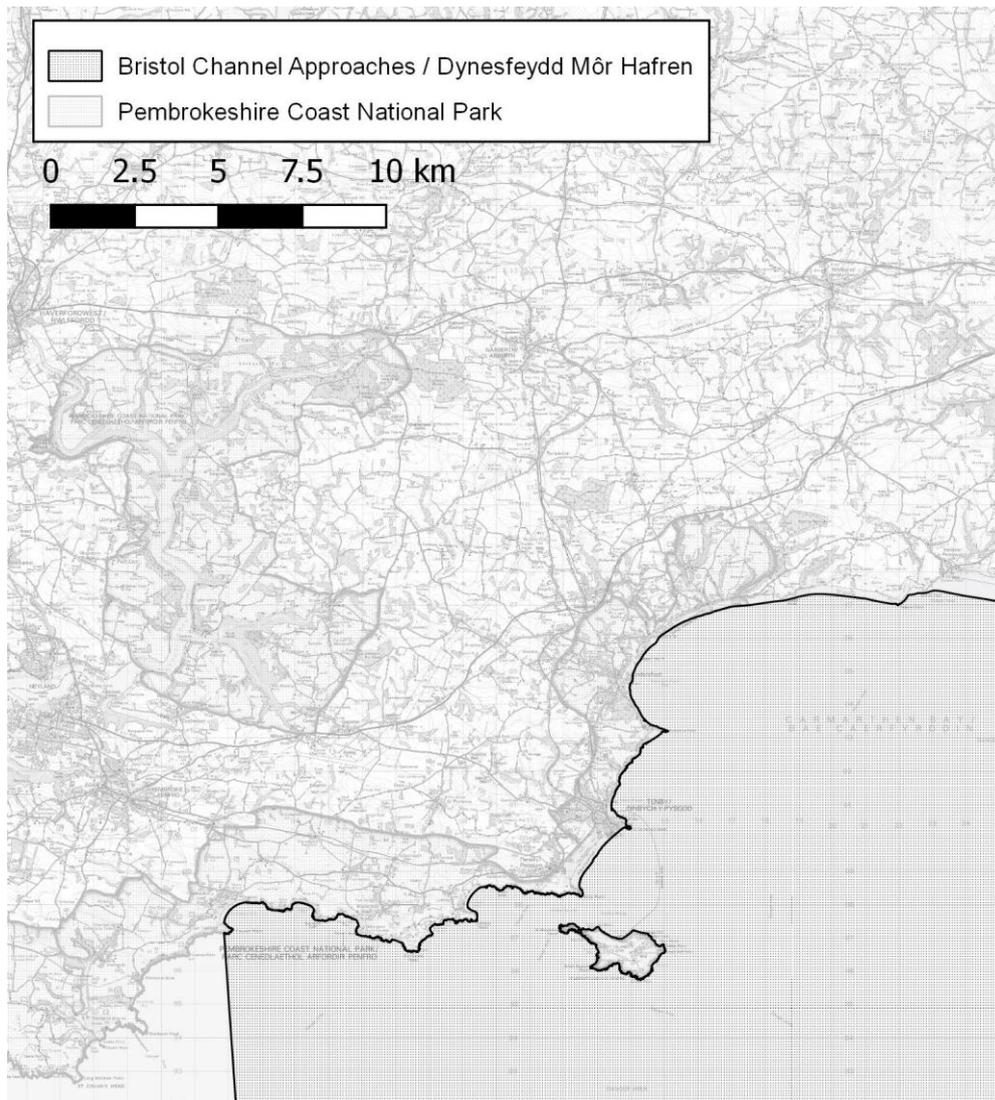
More information:

<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0013045>

UK0030305 Yerbeston Tops

General site character

Bogs. Marshes. Water fringed vegetation. Fens (3.7%); Heath. Scrub. Maquis and garrigue. Phygrana (9.1%); Humid grassland. Mesophile grassland (25.7%); Improved grassland (9.6%); Broad-leaved deciduous woodland (51.9%).

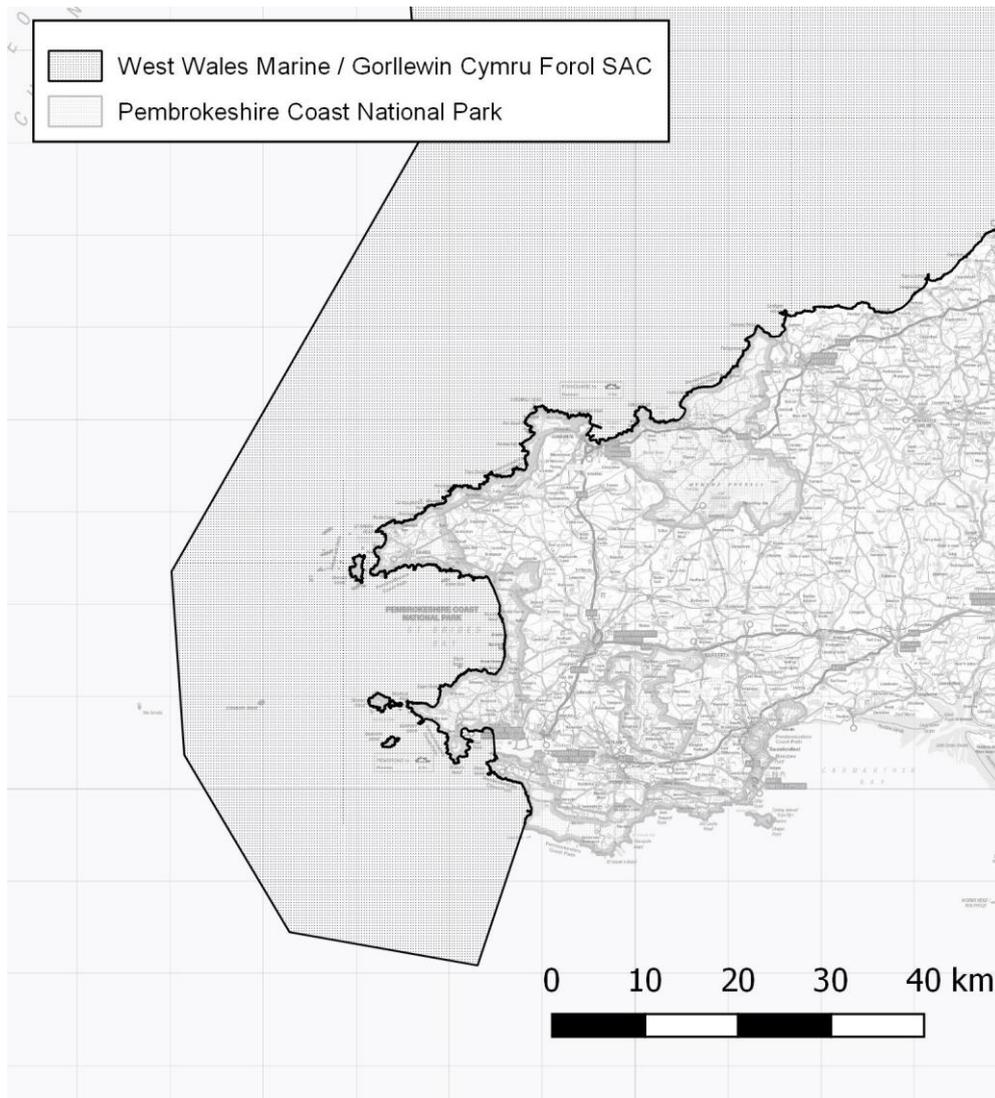


Map A1.13 Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC

Feature	Condition
<a href="#">1315 Harbour porpoise</a>	No data at present

More information:

<http://jncc.defra.gov.uk/page-7241>

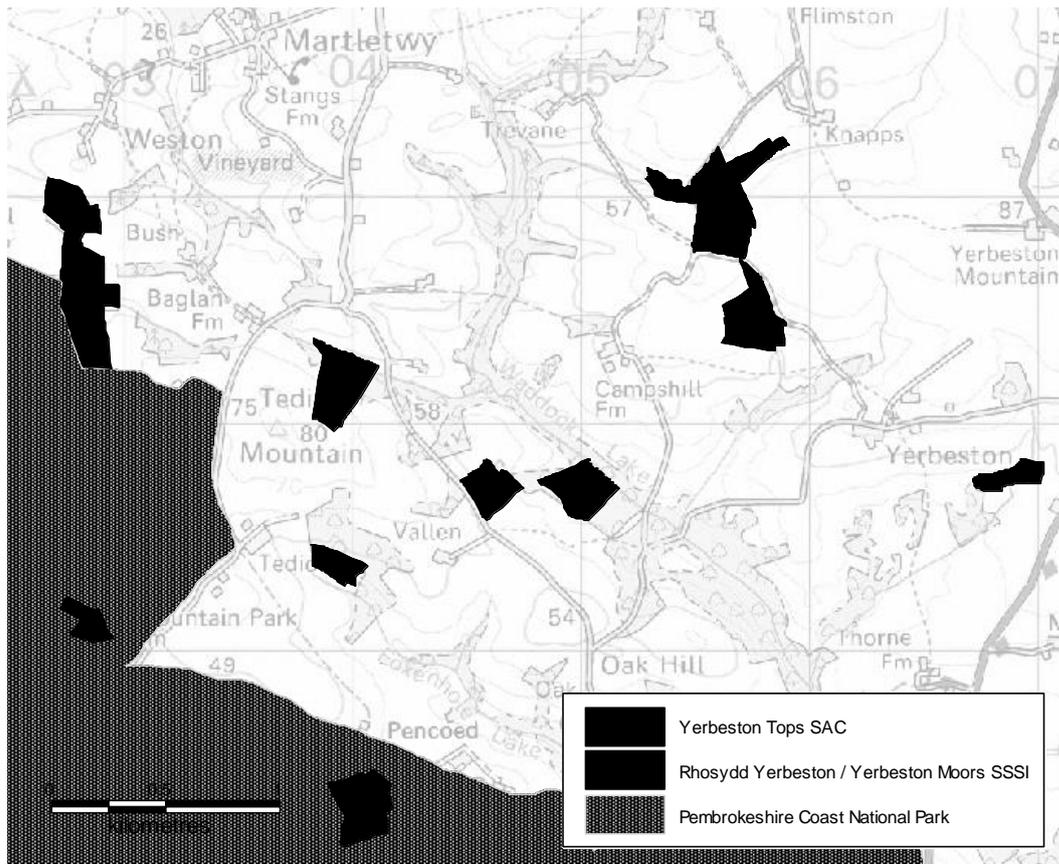


Map A1.14 West Wales Marine / Gorllewin Cymru Forol SAC

Feature	Condition
<a href="#">1315 Harbour porpoise</a>	No data at present

More information:

<http://jncc.defra.gov.uk/page-7343-theme=textonly>



Map A1.15 Yerboston Tops SAC with parts of Rhosydd Yerboston / Yerboston Moors SSSI

Feature	Condition
6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinia caerulea</i> )	Unfavourable: No-change
1065 Marsh fritillary butterfly, <i>Euphydryas</i> ( <i>Eurodryas</i> , <i>Hypodryas</i> ) <i>aurinia</i>	Unfavourable: No-change

More information:

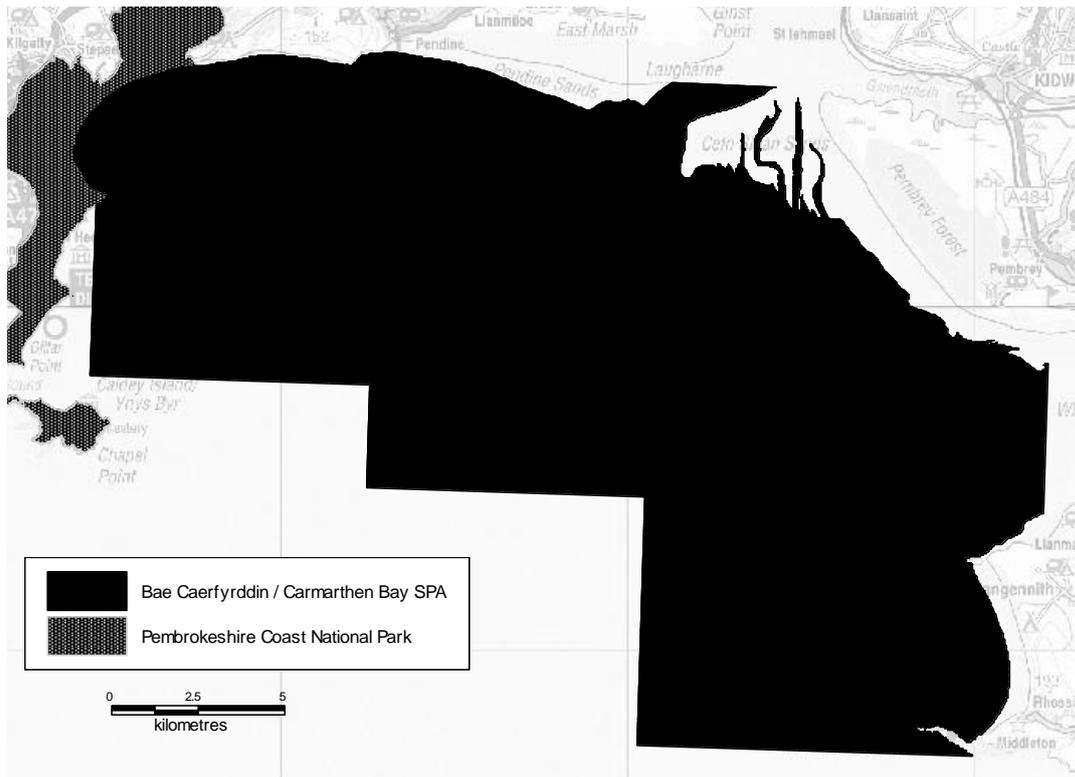
<http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030305>

### Special Protection Areas

UK9014091 Bae Caerfyrddin / Carmarthen Bay

General site character

Marine areas. Sea inlets (100%).



**Map A1.16 Bae Caerfyrddin / Carmarthen Bay SPA**

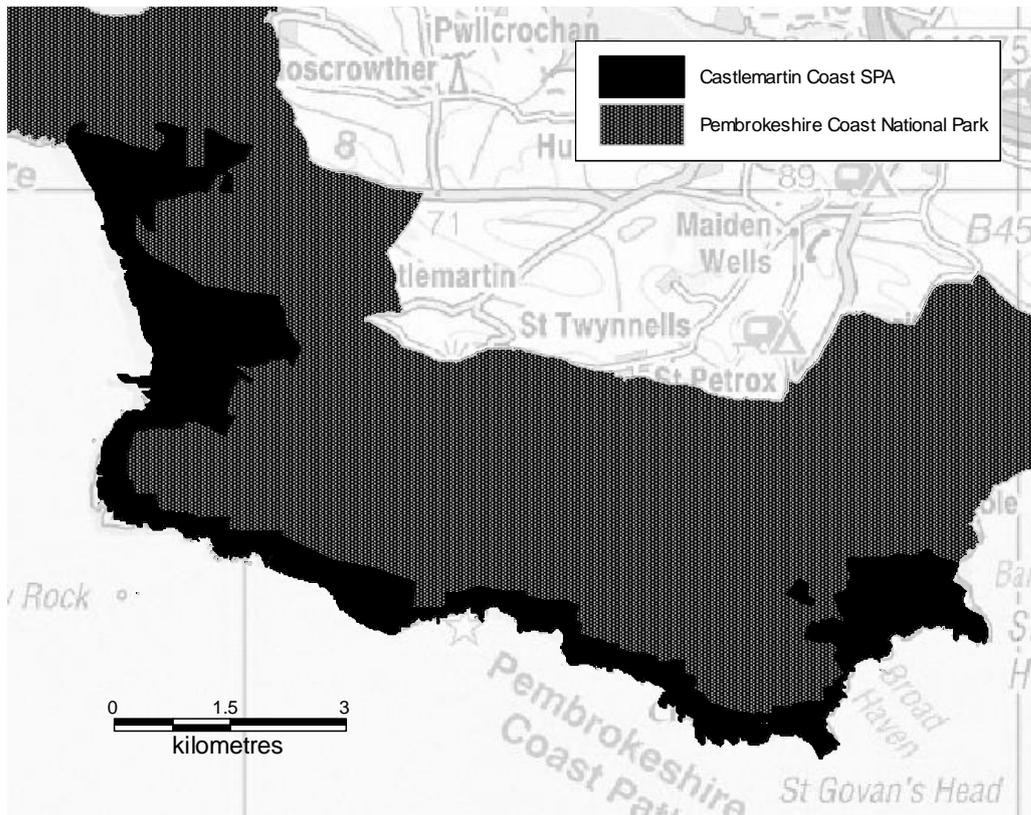
Annex 1 bird species	Condition
Common Scoter ( <i>Melanitta nigra</i> ), over-wintering area	

More information: <http://www.jncc.gov.uk/pdf/SPA/UK9014091.pdf>

UK9014061 Castlemartin Coast

General site character

Coastal sand dunes. Sand beaches. Machair (56%); Shingle. Sea cliffs. Islets (44%).



Map A1.17 Castlemartin Coast SPA

Annex 1 bird species	Condition
Chough ( <i>Pyrhocorax pyrrhocorax</i> )	Favourable

More information: <http://www.jncc.gov.uk/pdf/SPA/UK9014061.pdf>;  
<http://www.jncc.gov.uk/default.aspx?page=2062>

UK9014041 Grassholm

General site character

Shingle. Sea cliffs. Islets (100%)



Map A1.18 Grassholm SPA

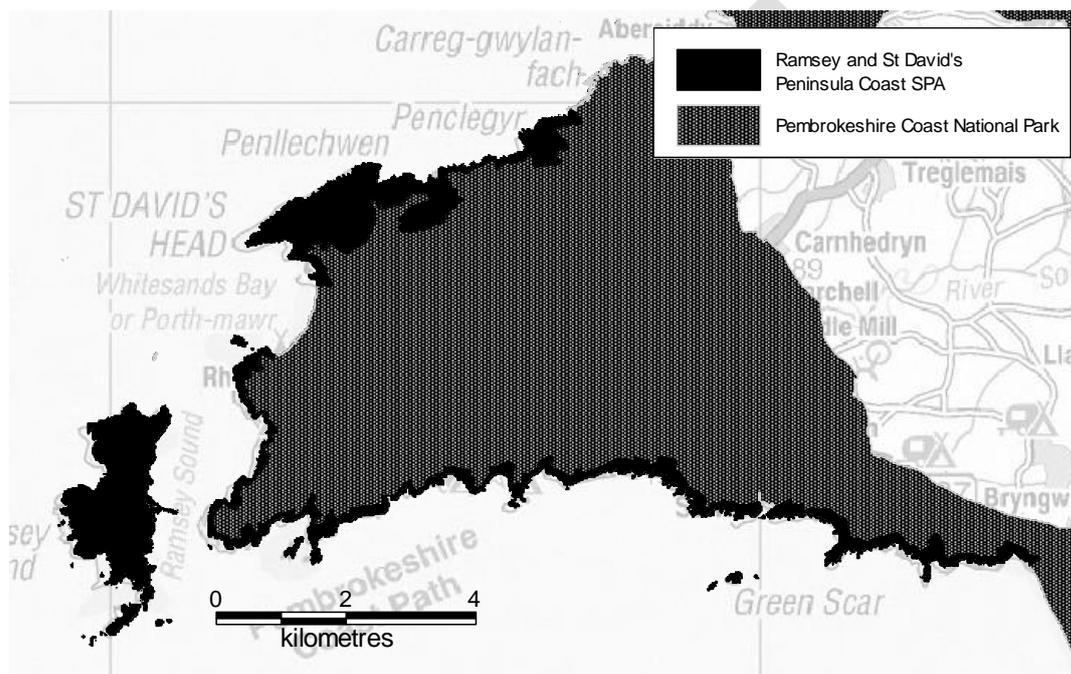
Annex 1 bird species	Condition
Gannet ( <i>Morus bassanus</i> ), breeding area	Favourable: Maintained

More information: <http://www.jncc.gov.uk/pdf/SPA/UK9014041.pdf>;  
<http://www.jncc.gov.uk/default.aspx?page=2060>

#### UK9014062 Ramsey and St David's Peninsula Coast

General site character

Marine areas. Sea inlets (11%); Coastal sand dunes. Sand beaches. Machair (1%); Shingle. Sea cliffs. Islets (88%).



**Map A1.19 Ramsey and St David's Peninsula Coast SPA**

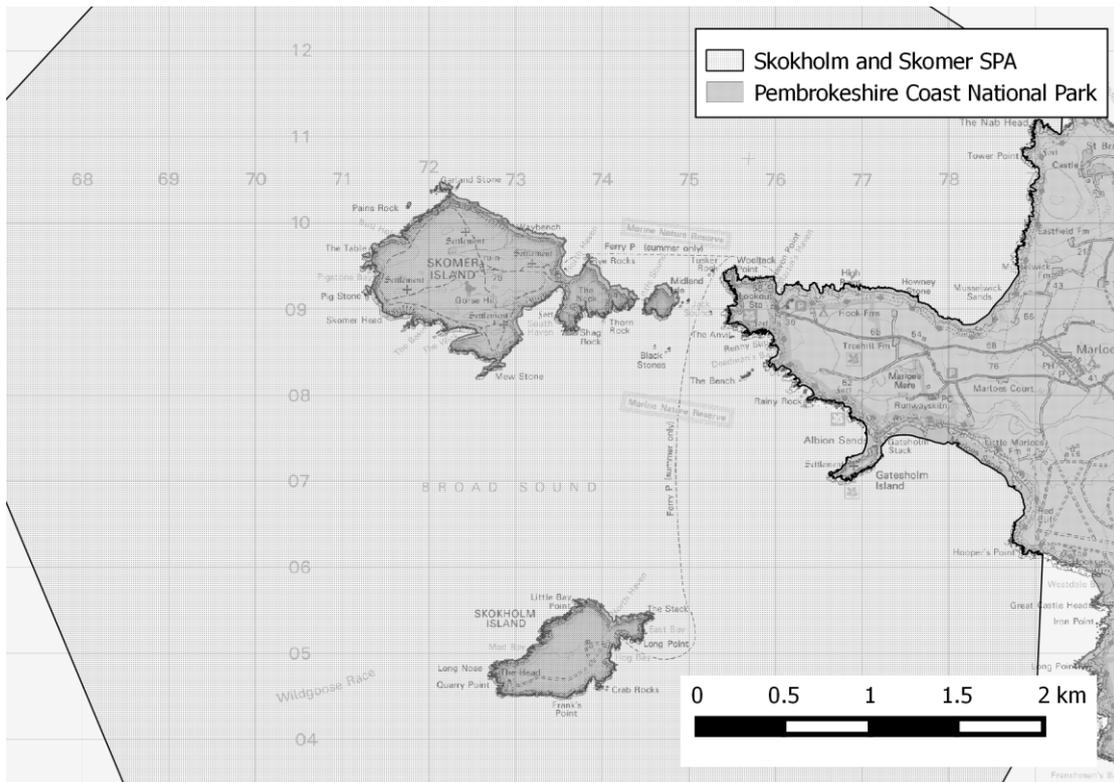
Annex 1 bird species	Condition
Chough ( <i>Pyrhocorax pyrrhocorax</i> )	Favourable: Un-classified

More information: <http://www.jncc.gov.uk/pdf/SPA/UK9014062.pdf>;  
<http://www.jncc.gov.uk/default.aspx?page=2063>

#### UK9014051 Skokholm and Skomer

General site character

Shingle. Sea cliffs. Islets (100%).



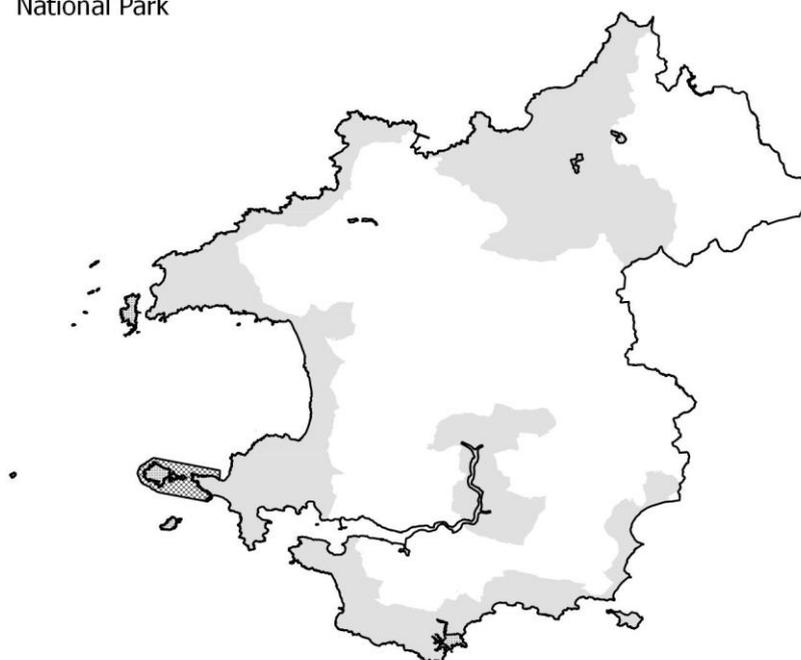
**Map A1.20 Skokholm and Skomer SPA**

<b>Annex 1 bird species</b>	<b>Condition</b>
Razorbill ( <i>Alca torda</i> )	Favourable: Maintained
Atlantic Puffin ( <i>Fratercula arctica</i> )	Favourable: Maintained
Storm Petrel ( <i>Hydrobates pelagicus</i> )	Unfavourable: Unclassified
Manx Shearwater ( <i>Puffinus puffinus</i> )	Favourable: Maintained

More information: <http://www.jncc.gov.uk/pdf/SPA/UK9014051.pdf>;  
<http://www.jncc.gov.uk/default.aspx?page=2061>

The following map shows National and Marine Nature reserves in and around the Pembrokeshire Coast National Park.

-  Marine Conservation Zone
-  National Nature Reserve
-  Pembrokeshire Coast National Park



In 2003 20% of species and habitats in the Local Biodiversity Action Plan for Pembrokeshire were found to be in an optimal maintained or optimal recovered condition; 13% in a sub-optimal recovering condition; 40% sub-optimal declining; and 27% in an unknown condition (Source: Pembrokeshire Coast National Park Management Plan 2003 - 2007). More recent and detailed analyses of the state of priority species and habitats in the LBAP are required to develop the baseline information on biodiversity.

### Geodiversity

The Pembrokeshire Coast National Park contains 51 Geological Conservation Review (GCR) sites, covering about 40% of the Pembrokeshire Coastline (excluding the Milford Haven waterway and Daugleddau). All GCR sites are protected by SSSI status. The following table lists GCR sites in Pembrokeshire, and their condition (note: condition for geological sites is dependent on accessibility, visibility & useability, i.e. on the value of the site for research and education)

GCR number	GCR site Name	Type of site (GCR 'Block')	GCR FEATURE CONDITION & TREND
121	Abergwaun	ORDOVICIAN IGNEOUS	FAVOURABLE, no change

<b>GCR number</b>	<b>GCR site Name</b>	<b>Type of site (GCR 'Block')</b>	<b>GCR FEATURE CONDITION &amp; TREND</b>
284	Abermawr – Porth Lleoug	ORDOVICIAN IGNEOUS	FAVOURABLE, no change
1460	Abermawr	QUATERNARY, WALES	FAVOURABLE, declining
1734	Albion Sands & Gateholm Island	OLD RED SANDSTONE	FAVOURABLE, no change
1759	Blucks Pool to Bullslaughter Bay	DINANTIAN (Carboniferous Limestone)	? FAVOURABLE unknown
1661	Broad Haven to Settling Nose	VARISCAN STRUCTURES	FAVOURABLE no change
2965	Bryn Bank Quarry	ORDOVICIAN: Llandeilo	UNFAVOURABLE improved
283	Castell Coch to Trwyncastell	ORDOVICIAN IGNEOUS	FAVOURABLE no change
2414	Deer Park	SILURIAN IGNEOUS	FAVOURABLE no change
1918	Dinas & Esgyrn Bottom <sup>12</sup>	QUATERNARY, WALES	1918a Dinas Head (Cwm Dewi) FAVOURABLE declining 1918b Esgyrn Bottom FAVOURABLE declining
1477	Druidston	QUATERNARY, WALES	FAVOURABLE declining
1662	Druidston Haven	VARISCAN STRUCTURES	FAVOURABLE no change
538	Dwrhyd Pit	CAMBRIAN	UNFAVOURABLE declining
1657	Freshwater East (North)	VARISCAN STRUCTURES	FAVOURABLE no change
43	Freshwater East	PALAEOZOIC PALAEOBOTANY	FAVOURABLE unknown
954	Freshwater East (South)	SILURIAN: WENLOCK	FAVOURABLE no change
1666	Freshwater West (North)	OLD RED SANDSTONE	FAVOURABLE no change
1663	Freshwater West (South)	VARISCAN STRUCTURES	FAVOURABLE no change
pGCR	Freshwater West (South)	OLD RED SANDSTONE	FAVOURABLE no change
1765	Gasworks	SILURIAN:	UNFAVOURABLE declining

<sup>12</sup> Two widely separated areas

<b>GCR number</b>	<b>GCR site Name</b>	<b>Type of site (GCR 'Block')</b>	<b>GCR FEATURE CONDITION &amp; TREND</b>
	Lane	LLANDOVERY	
1317	Hoyle's Mouth Cave	PLEISTOCENE VERTEBRATES	UNKNOWN could be considered unfavourable or effectively unstable
2027	Little Hoyle & Hoyle's Mouth Cave	QUATERNARY (WALES)	UNKNOWN could be considered unfavourable or effectively unstable
1732	Little Castle Head	OLD RED SANDSTONE	FAVOURABLE no change
128	Llanvirn – Aberiddi	ORDOVICIAN: Arenig - Llanvirn	? FAVOURABLE declining
953	Marloes	SILURIAN: Wenlock	FAVOURABLE no change
1769	Marloes	SILURIAN: Llandovery	FAVOURABLE no change
1660	Marloes to Albion Sands	VARISCAN STRUCTURES	FAVOURABLE no change
1665	Mill Haven	VARISCAN STRUCTURES	FAVOURABLE no change
1659	Musselwick Bay	VARISCAN STRUCTURES	FAVOURABLE no change
1664	Musselwick Sands	VARISCAN STRUCTURES	FAVOURABLE no change
1919	Mynydd Preseli	QUATERNARY WALES	FAVOURABLE no significant change
1418	Nolton Haven Coast	U. CARBONIFEROUS: Westphalian ('Coal Measures')	FAVOURABLE unknown
129	Ogof Hen	ORDOVICIAN Arebug - Kkabvirn	FAVOURABLE declining
282 a	Pencaer <sup>13</sup>	ORDOVICIAN IGNEOUS	282 a Pencaer FAVOURABLE no change 282 b Penanglas (pSSSI) FAVOURABLE no change
pGCR	Pengawse Hill	ORDOVICIAN	FAVOURABLE declining
1461	Poppit Sands	QUATERNARY WALES	FAVOURABLE declining
1459	Porth Clais	QUATERNARY WALES	FAVOURABLE no change
625	Porth-y-rhaw	CAMBRIAN	FAVOURABLE no change
1072	Robeston Wathen	ORDOVICIAN: Caradoc - Ashgill	UNFAVOURABLE declining
1073	Shoalshook	ORDOVICIAN: Caradoc Ashgill	FAVOURABLE improved

<sup>13</sup> Two widely separated areas

<b>GCR number</b>	<b>GCR site Name</b>	<b>Type of site (GCR 'Block')</b>	<b>GCR FEATURE CONDITION &amp; TREND</b>
2413	Skomer Island	SILURIAN IGNEOUS	FAVOURABLE no change
1877	Solfach	COASTAL GEOMORPHOLOGY	FAVOURABLE no change
624	Solva Harbour	CAMBRIAN	FAVOURABLE no change
1913	South Pembroke cliffs	COASTAL GEOMORPHOLOGY	FAVOURABLE no change
1658	St Anne's head	VARISCAN STRUCTURES	FAVOURABLE no change
747	St David's Coast	PRECAMBRIAN	FAVOURABLE no change
285	St David's Head	ORDOVICIAN IGNEOUS	Most of coast: FAVOURABLE no change PORTH CLAIS: UNFAVOURABLE
623	St Non's – Caerfai Bay	CAMBRIAN	FAVOURABLE no change
1656	Stackpole Quay	VARISCAN STRUCTURES	Coastal exposures: FAVOURABLE no change Inland exposures: UNFAVOURABLE improved
310	Tenby Beach	NAMURIAN ('Millstone Grit')	UNFAVOURABLE declining
1775	Tenby Cliffs	OLD RED SANDSTONE	FAVOURABLE no change
1735	Tenby Cliffs	DINANTIAN	FAVOURABLE no change
1428	Tenby – Saundersfoot Coast	U.CARBONIFEROUS Westphalian ('Coal Measures')	FAVOURABLE no change
1917	Treffgarne	QUATERNARY WALES	Tors and gorge: FAVOURABLE declining Quarry exposures: UNFAVOURABLE beyond recovery
622	Trefgarne Bridge Quarry	CAMBRIAN	FAVOURABLE improved
621	Trwyn Cyndderiog	CAMBRIAN	UNKNOWN
1458	West Angle Bay	QUATERNARY, WALES	UNKNOWN
1733	West Angle Bay (North	OLD RED SANDSTONE	FAVOURABLE no change

GCR number	GCR site Name	Type of site (GCR 'Block')	GCR FEATURE CONDITION & TREND
131	Whitesands Bay	CAMBRIAN	FAVOURABLE no change
1416	Wiseman's bridge – Amroth Coast	U.CARBONIFEROUS Westphalian ('Coal Measures')	FAVOURABLE no change

Source: NRW

In addition to the GCR sites listed above 66 candidate Regionally Important Geological Sites (RIGS) have been identified in the National Park. Assessment of these sites will commence early 2007 (funding permitting) is likely to take several years.

### Soil

The National Soil Resources Institute (NSRI) at Cranfield University (<http://www.silsoe.cranfield.ac.uk/nsri/>) produce a range of soils data for use in Geographic Information Systems. Unfortunately this data is only available at a cost that is beyond that justifiable for this authority.

### Landscape

In the report of the public inquiry for the Pembrokeshire Coast National Park Local Plan in 1997 the Inspector made the following comments on housing development and landscape capacity<sup>14</sup>.

*"The correct approach must be to start with environmental considerations, and to examine the extent to which further housing land allocations are compatible with them. Such an approach must almost certainly lead to a total housing land allocation that represents a policy of severe restraint and that does not reflect past completion rates."*

*"This must follow from the considerations that National Park designation represents the highest status of protection as far as landscape and scenic beauty are concerned: that the park is already the most densely populated of all the National Parks; and that its ability to accept further housing must be constrained by its environmental capacity. It would be wholly incorrect, and a negation of the National Park designation, to treat the park as being no different in policy terms from the rest of the county, and to apportion new housing between them on a pro rata basis, relative to their populations."*

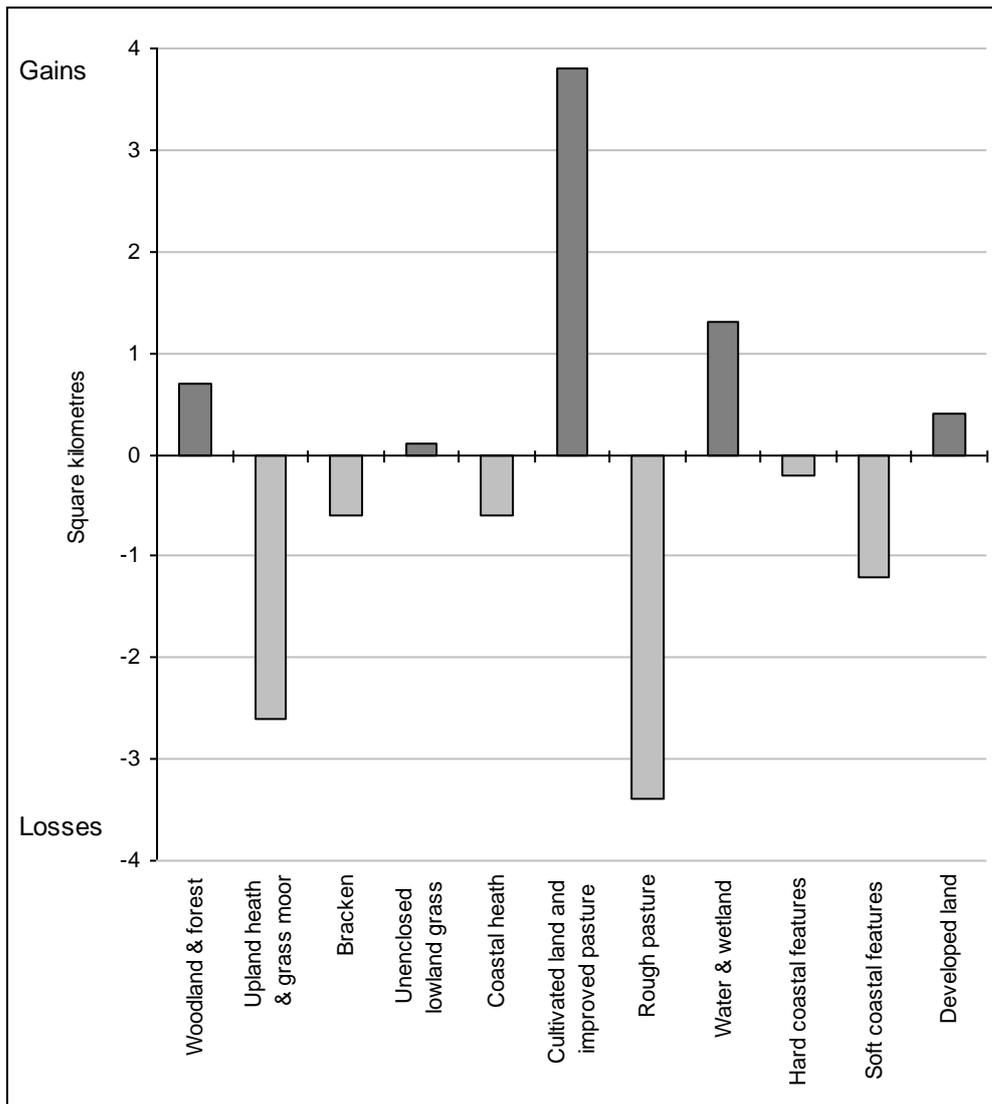
In the report of the Public Inquiry for the JUDP for Pembrokeshire the inspector made the following comment regarding development and the landscape

*"...it is entirely appropriate that the National Park, by reason of its designation as an area of special landscape character, should be the subject of a policy which imposes fairly severe restrictions on development that would harm those very qualities. ...."*

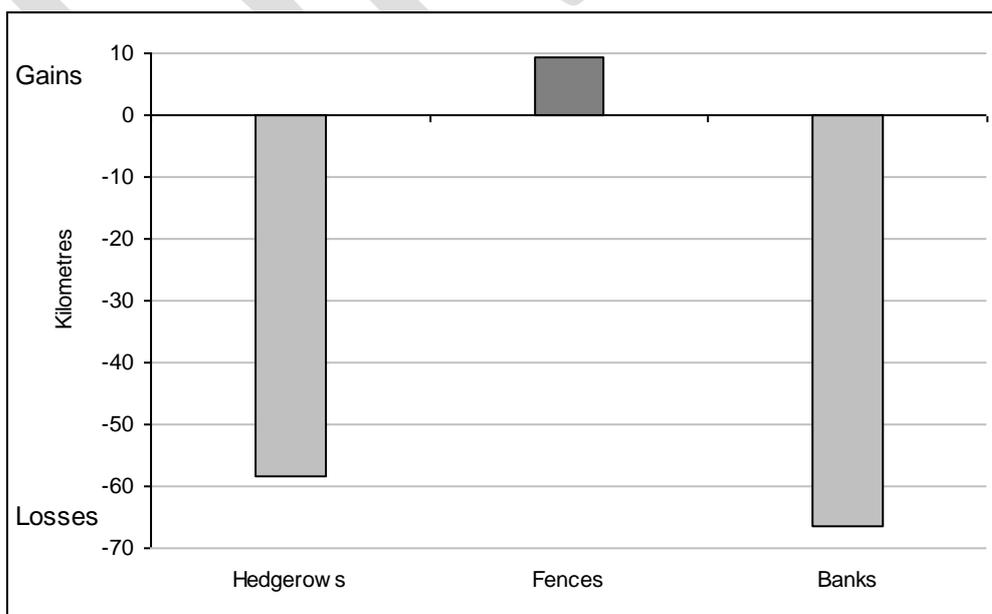
The most recent systematic analysis of landscape change in National Parks in England and Wales<sup>15</sup> was published in 1991 and based on the analysis of aerial photographs acquired in the 1970s and late 1980s. This study looked primarily at land cover and boundary features. Changes in land cover and boundaries are summarised in the following two charts.

<sup>14</sup> Pembrokeshire Coast National Park: Report Into Duly Made Objections to the Pembrokeshire Coast National Park Local Plan Deposit Draft. Inspector: P J MacDonald MSc RIBA MRTPI Dates of Inquiry: 18 March - 9 May 1997. Paragraphs 4.13 and 4.14

<sup>15</sup> Countryside Commission (1991) *Landscape Change in the National Parks*. Manchester: Countryside Commission.



Source: after Countryside Commission (1991)

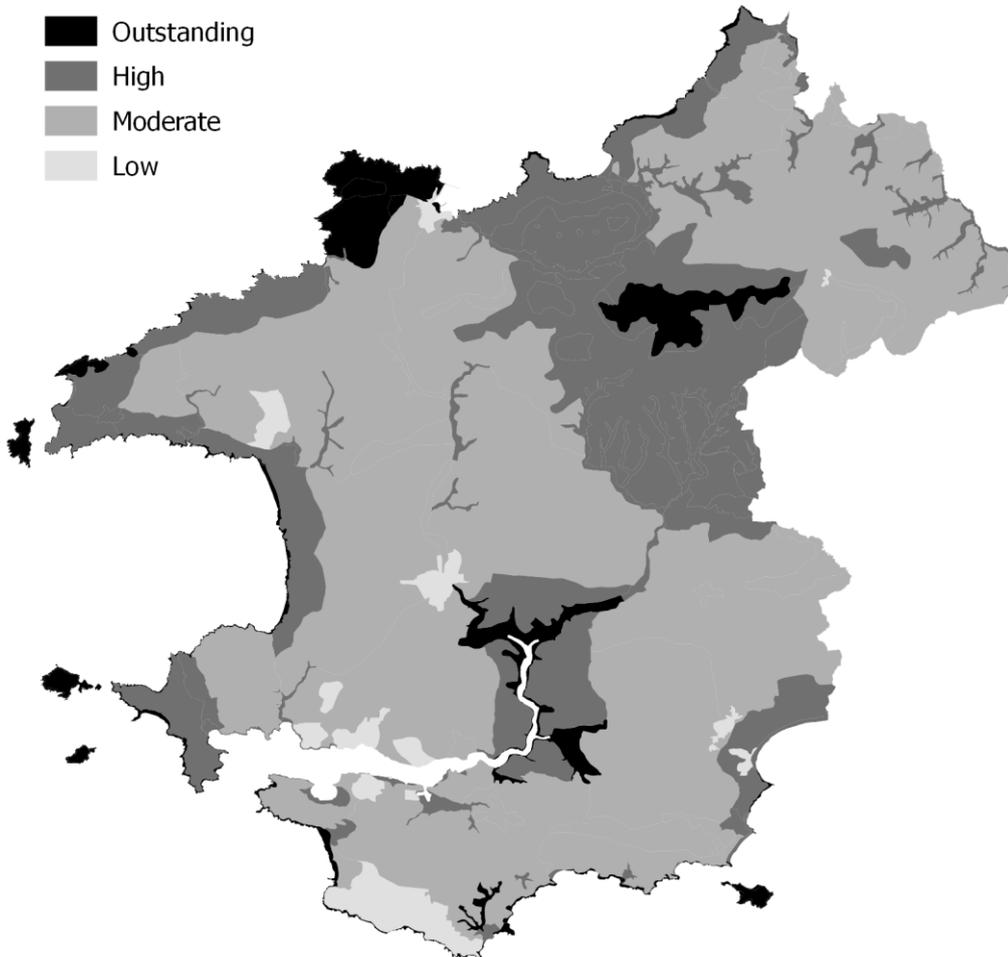


Source: after Countryside Commission (1991)

LANDMAP is the national information system, devised by the Countryside Council for Wales, for taking landscape into account in decision-making. LANDMAP characterises the landscape according to five aspects: Geological landscape; Landscape Habitats; Visual & Sensory; Historic Landscape; and Cultural Landscape. The Visual and Sensory and Landscape Habitats aspects have been Quality Assured for Pembrokeshire. The Visual and Sensory aspect is mapped below according to the assessed overall landscape value and the presence of detracting views.

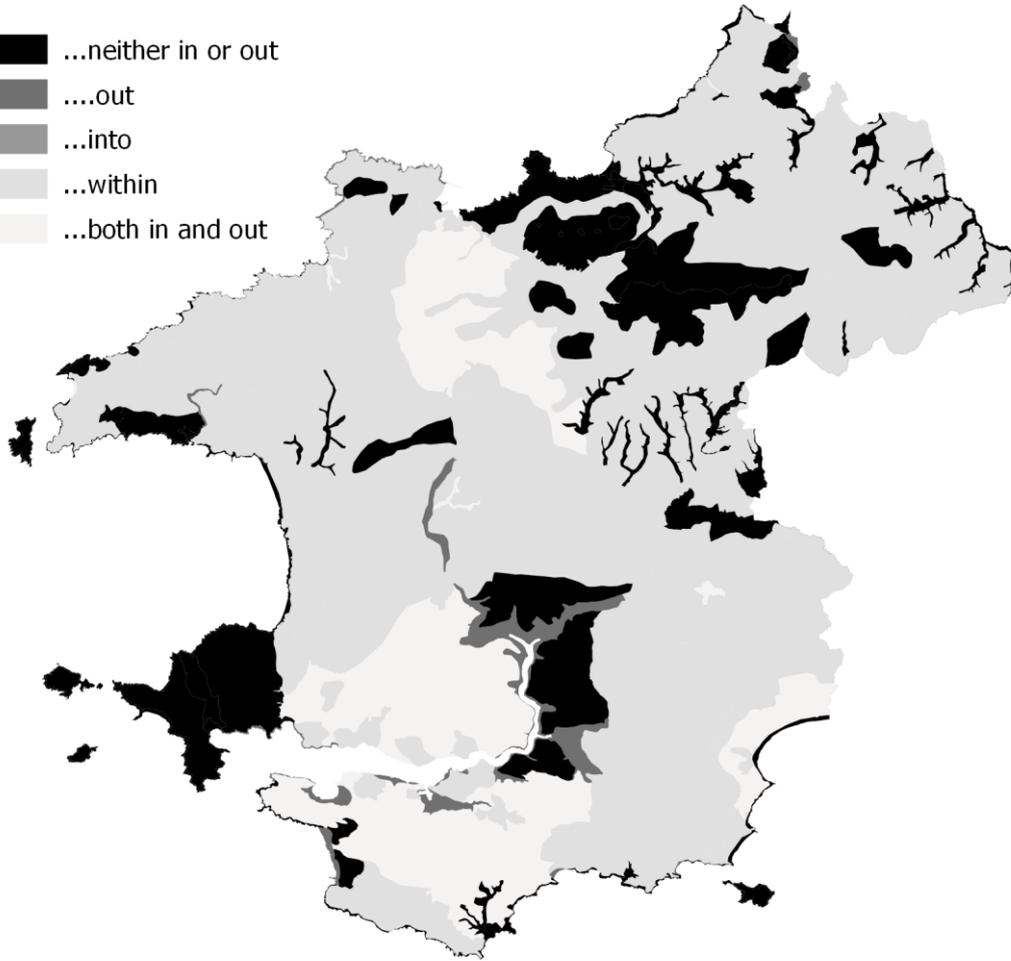
### Overall evaluation of visual and sensory landscape

-  Outstanding
-  High
-  Moderate
-  Low



## Detracting views

- ...neither in or out
- ...out
- ...into
- ...within
- ...both in and out



The Pembrokeshire Coast NPA has commissioned an integrated landscape characterisation based on the LandMap aspects; this has been published as a Background Paper to the Local Development Plan.

Landscape analysis programmes such as that published by the Countryside Commission and LandMap, are cost and labour intensive and not intended as ongoing landscape monitoring programmes. Ongoing monitoring of the nature and quality of the landscape of the National Park is likely to present problems in future unless reliable techniques can be developed using essentially automated procedures and readily available, regularly updated data.

### **Tranquility/ Disturbance**

Major components of disturbance in rural areas are light and noise pollution. It has not been possible to source maps of light pollution for the Plan area to show changes in the degree of light pollution over time. Should such maps or satellite images become available they will be added to this baseline.

The National Assembly for Wales has undertaken a pilot study to map environmental noise ([http://new.wales.gov.uk/topics/environmentcountryside/epg/Noise\\_and\\_nuisance/noise\\_monitoring\\_mapping/?lang=en](http://new.wales.gov.uk/topics/environmentcountryside/epg/Noise_and_nuisance/noise_monitoring_mapping/?lang=en)). This work should be rolled out to cover the whole of Wales to meet the requirements of Directive 2002/49/EC of the European Parliament and of the Council of Ministers (the Environmental Noise Directive).

Other indicators of disturbance might be the presence and nature of roads, population density and tourism activity (see the table on tourism 'hot-spots' in the recreation section of this appendix). If appropriate during the development of the Management Plan this issue will be explored, and more information on disturbance added to this baseline.

### Waste

The table below provides a summary of the management of municipal waste in Pembrokeshire. At present only two years' worth of data is available due to the new definition (municipal waste 'sent' for reuse/recycled/composted).

Management	2012-13	2013-14
Total Municipal Waste Collected/Generated	64516.49	67729
Total Waste Reused/Recycled/Composted (Statutory Target)	34283.23	40864
Waste sent for other recovery	0	0
Waste Incinerated with Energy Recovery	1061.08	6483
Waste Incinerated without Energy Recovery	0	0
Waste Landfilled	29182.95	20004
Percentage of Waste Reused/Recycled/Composted (Statutory Target)*	53.13871	60.33457

Source: [Stats Wales](#)

\*Total waste reused/recycled/composted (as defined by the Statutory Local Authority Recovery Target, LART), as a percentage of total municipal waste collected/generated

Municipal waste accounts for a relatively small proportion of total waste output (13% of the total non-agricultural waste production in the south west Wales region in 1998/99) to give an idea of the contribution of other waste streams the following table shows waste arisings for Pembrokeshire in 1998/99 from the South West Wales Regional Waste Plan Stage 1 report.

Waste type	Municipal	Commercial & Industrial	Construction & Demolition
Tonnes	59,400	97,700	127,638

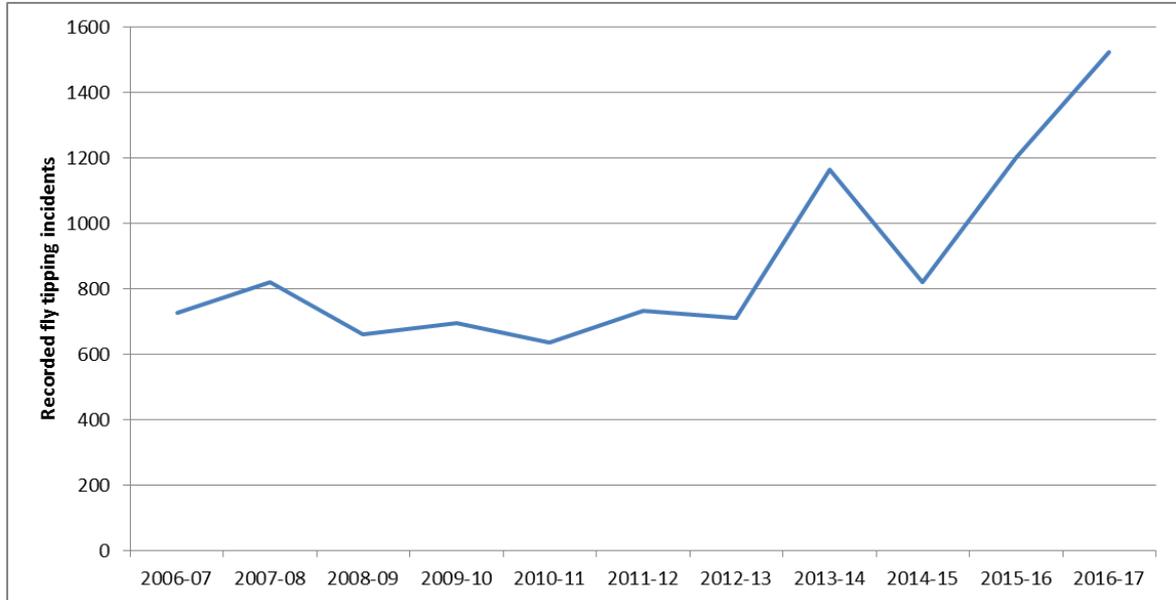
Annual Monitoring Reports for the South West Wales Regional Waste Plan have been release up until 2007 but lack data for all waste types for all years making the data for 1998/99 the most recent comparable data for context at present. The Regional Waste Plan has since been superseded by Sector Plans, and a new Annual Monitoring report containing waste arisings data for Local Authorities is expected in spring/summer 2016.

### Litter

As litter (including beach litter) appears to be a significant problem in the National Park, detailed information on the extent and sources of litter are needed. Attempts will be made to source such information as the Sustainability Appraisal progresses.

## Fly-tipping

Annual fly-tipping data is available for Pembrokeshire from the Welsh Government via the StatsWales website.



**Recorded fly-tipping incidents by Local Authority. Source: [StatsWales](#)**

The frequency of fly-tipping in Pembrokeshire remained fairly constant between 2006 and 2012. However, in recent years there have been significant spikes in the number of incidents recorded (1199 in 2013-14, and 1521 in the 2016-17 period).

## Minerals

As of September 2017, there are five active quarry sites in the National Park

Site Name	Mineral type	Reserve (at date)	Comments
Carew Quarry	Limestone	3.7Mt (2012)	Active - permission expires 2035. 2012 application states 125,000 tonnes pa
Rhyndaston	Igneous	1.65Mt (2002)	Active - permission expires December 2020. 2002 application states 80-100,000t pa
Syke	Igneous	2.2Mt (1998)	Works intermittently. Inactive since 2009. Permission expires February 2042.
Pantgwyn	Sand and gravel	1.1 Mt (2008)	Permission expires March 2024. There is a restriction on the output of 80,000tpa as a result of a planning condition.
Trefigin	Sand and gravel	1.445 Mt (2006)	Permission expires March 2029. There is a restriction on the output of 80,000tpa as a result of a planning condition.

One dormant quarry site is identified at Penberry with reserves of granite in excess of 112,000t. A Prohibition Order has been made and submitted to Welsh Government for confirmation.

Since 2000 the NPA has received eleven applications related to increasing quarrying and related activity at sites in the National Park, the following table summarises those proposals.

Application ID	Date received	Proposal	Location	Decision
01/557	14 Nov 01	Non-compliance with Condition 31 of NP/319/97 (to allow import of 3,800 tonnes of cement and pumice per calendar year for use in concrete block making)	Carew Quarry, Carew	Approved
02/368	30-Jul-02	Extension for quarrying of igneous rock, restoration to agriculture/nature conservation	Land east of Rhyndaston Quarry, Nr Haycastle, Haverfordwest	Approved
04/013/GDO22	17-Apr-04	Mineral exploration works	Trefigin Quarry, Moylegrove	Approved

04/319	09-Jun-04	Regularise northern extension to quarry with additional extraction, restoration, associated drainage works and re-profiling of part of restored phase 1	Pantgwyn Quarry, Glanrhyd	Approved
04/0469	16 Aug 04	Variation of Condition 6 & 31 of NP/319/97 and Condition 2 of NP/01/557 to allow extended lorry loading hours and the importation of material for use in the concrete batching plant	Carew Quarry, Carew	Approved
05/016/gdo22	26-Jul-05	Trial Pit Investigation	Pantgwyn Quarry, Glanrhyd	Approved
06/159	03-Apr-06	Extension of quarry operations & modification of previously approved restoration scheme for existing quarry site	Trefigin Quarry, Monington	Approved
06/382	25-Jul-06	Extension of 1ha to quarry	Pantgwyn Quarry, Glanrhyd	Approved
08/0418	05 Sept 08	Extension of Quarry	Pantgwyn Quarry, Glanrhyd	Approved
10/0481	21 Oct 10	Variation of Condition 30 of NP/319/97 to allow extended lorry loading hours and the importation of material for use in the concrete batching plant	Carew Quarry, Carew	Approved
10/0482	21 Oct 10	Variation of Condition 31 of NP/319/97 to allow extended lorry loading hours and the importation of material for use in the concrete batching plant	Carew Quarry, Carew	Approved