## **Pembrokeshire Coast National Park**

# National Park Management Plan 2025 - 2029

Sustainability Appraisal (incorporating Strategic Environmental Assessment)

Draft Initial Sustainability Appraisal Report: Appendix B – Baseline Information

19<sup>th</sup> June 2024

PEMBROKESHIRE COAST NATIONAL PARK AUTHORITY

# Sustainability Appraisal of the Pembrokeshire Coast National Park National Park Management Plan 2025 - 2029

## Appendix B: Baseline information

General & Population	4
Total population and trends	5
Housing	
•	
Housing stock	
Housing need	9
Second and holiday homes	
Health	
Income & Employment	
Unemployment rates	
Employment rates	19
Industries of employment	
Economy	
Business	
Agriculture	
Recreation	
Education & Skills	27
Access to services	
Community/ cultural distinctiveness	29
Welsh Language Other indicators of cultural distinctiveness	
Historic environment	34
Transport	51
Car ownership	51
Use of cars by visitors	
Pollution	53
Air pollution/quality Water quality	
Climate Change	64
Overview	64
Flooding	64
Biodiversity	67
Natura 2000 sites	68
Geodiversity	98
Soil	102
Landscape	105
Tranquility/ Disturbance	106

Waste	108
Litter	
Fly-tipping	109
Minerals	111

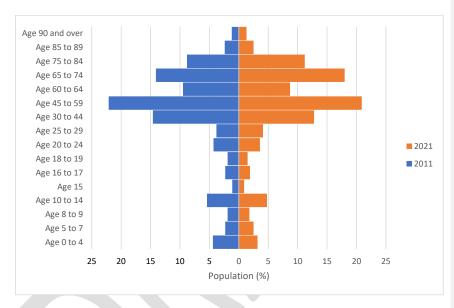


#### **General & Population**

#### Total population and trends

The resident population of the National Park at the 2021 census was found to be 20,933, a population decline of 7.6% on the 2011 Census (22,644) and the largest population decline of all of the National Parks in England and Wales between the two censuses.

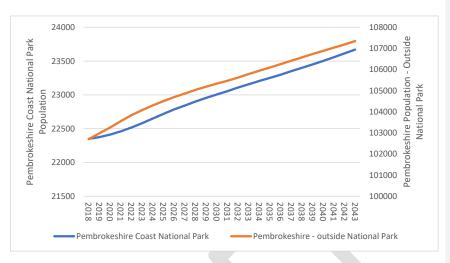
The age structure of the National Park's usual resident population in the 2011 and 2021 census is shown in the chart below.



Data source: Census 2011/2021

The Census 2021 data indicates that over a third of the population of the National Park are 65 or older.

Population projections to 2043 have been prepared by Welsh Government, based on the 2018 mid-year population estimates, for the National Park and the area of Pembrokeshire outside of the National Park. These are shown in the chart below:



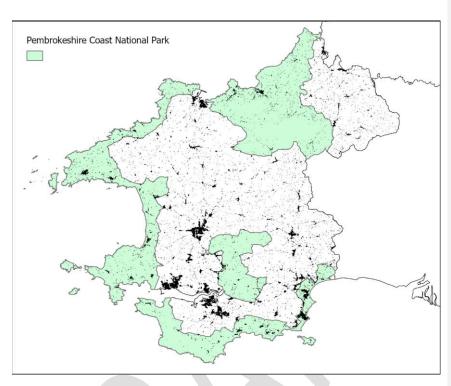
Data source: ONS/Welsh Government (<u>Population projections by year and national park (gov.wales)</u>)

As noted above, the population of the National Park is markedly lower than this projection. A population of approximately 22,460 was predicted in this model compared to the figure of 20,933 found in the 2021 census. Further population projections based on the 2021 census or more recent mid-year estimates are expected.

## 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 dataset¹ for April 2023.

<sup>&</sup>lt;sup>1</sup> © Crown copyright and database rights Ordnance Survey AC0000810561



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.

## Migration

Migration data derived from Health Authority records indicates a net migration inflow to Pembrokeshire from the rest of the UK.

Year	Wales Inflow	Wales Outflow	Wales Net	Pembrokeshire Inflow	Pembrokeshire Outflow	Pembrokeshire Net
2012- 2013	55010	55680	-670	3930	3630	300
2013- 2014	57480	57320	170	4090	3630	460
2014- 2015	57520	56680	840	3720	3680	40
2015- 2016	58660	55280	3380	4410	3680	730
2016- 2017	67694	60308	7386	4424	3669	755
2017- 2018	69123	60290	8833	4410	3794	616
2018- 2019	70963	62278	8685	4779	3651	1128
2019- 2020	65897	53031	12866	4174	2859	1315

StatsWales: Migration between Wales and the rest of the UK by local authority, flow and period of change

#### Housing

#### Housing stock

Permanently occupied housing stock by tenure in the PCNP at the 2021 Census

Owns outright 52%

Owns with a mortgage or loan 18.5%

Private landlord or letting agency 4.2%

Other private rented 4.2%

Shared ownership 0.3%

Rents from council or Local Authority 8%

Other social rented 4%

Lives rent free 0.1%

Source: 2021 Census

The following table summarises the composition of households resident in the National park between the 2011 and 2021 Censuses.

Year	All household s	One person household s	Single family household s with depended children	Single family household: No Children	Other household types: all
2011	10,277	3,386	2255	2009	342
2021	9,779	3,363	1634	1771	473
Change	-498	-23	-621	-238	+131

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 good over the course of the current LDP when compared to historic levels; the following table shows the completions of market and affordable housing for comparison.

Year	Overall Completions	Affordable
2015 - 2016	46	1
2016 -2017	69	46
2017 - 2018	37	3
2018 - 2019	67	14

Year	Overall Completions	Affordable
2019 - 2020	77	25
2020 - 2021	103	39
2021 - 2022	92	38
2022 – 2023	35	17
Total	526	183

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 2020-2025 indicates the following need for the County by number of bedrooms per year:

#### Annual requirement for affordable housing from households in current need in Pembrokeshire

Location	LCHO	Social rented	All affordable need
National Park	31	70	101
Non-National Park	125	337	463
Whole of Pembrokeshire	156	407	564

Source: Pembrokeshire Council Housing Register, 2021; CACI household income profile for Pembrokeshire, 2021, Pembrokeshire Local Housing Market Assessment 2020 - 2025.

#### 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.

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

Data source: 2011 Census

Data from Council Tax and the application of Non-Domestic Rates can be used estimate the percentage of second homes and holiday lets more regularly and more accurately. The table below shows the estimated percentage of second homes and holiday lets within the centres in the National Park as defined by Local Development Plan 2:

Centre Name	Estimated Percentage - Second and Holiday Homes
Amroth	47.37
Angle	15.79
Bosherston	28.57
Broad Haven	36.58
Carew	0.00
Castlemartin	6.52
Cosheston	0.00
Crymych	0.00
Dale	39.47
Dinas Cross	15.34
Felindre Farchog	4.35
Herbrandston	5.58
Hook	0.00
Houghton	0.00
Jameston	8.57
Lawrenny	28.57
Little Haven	62.96
Lydstep	16.22
Manorbier	14.98
Manorbier Station	0.00
Marloes	29.66
Milton	0.00
Moylegrove	22.64
New Hedges	4.35
Newgale	36.67

Centre Name	Estimated Percentage - Second and Holiday Homes
Newport	30.60
Nolton Haven	60.00
Porthgain	22.58
Roch	33.33
Rosebush	15.52
Saundersfoot	29.35
Solva	22.05
Square & Compass	25.00
St David's	20.86
St Ishmael's	11.17
Tenby	28.07
Trefin	26.00
Wiseman's Bridge	35.71

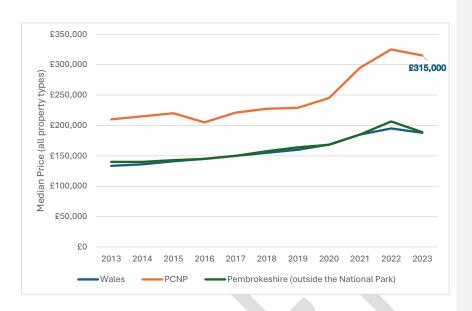
Source: Pembrokeshire County Council 2022

This data would suggest that, in many cases, the percentage of second homes and holiday lets is significantly higher than the census average would suggest.

## House prices

House prices in the National Park have increased sharply since 2013, 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.

In 2023 the median average price of a house in The National Park was 9.67 times the median average annual earnings of employees.



Median prices for all types of housing 2013 to 2023 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

At the 2021 Census 45.7% of people living in the National Park reported to have very good health 0.5% lower than the overall figure for Wales and 1% higher than the figure for Pembrokeshire as a whole.

General Health	Pembrokeshire Coast	Pembrokeshire	Wales
Very Good Health (%)	45.7	44.7	46.2
Good Health (%)	33.5	33.4	32.4
Fair Health (%)	14.6	15.1	14.5
Bad Health (%)	4.8	5.2	5.3
Very Bad Health (%)	1.5	1.6	1.7

Source: ONS Census TS037 - General health

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.



	2019-20 (North Pembrokeshire)	2020-21 (North Pembrokeshire)	2021-22 (North Pembrokeshire)	2019-20 (South Pembrokeshire)	2020-21 (South Pembrokeshire)	2021-22 (South Pembrokeshire)	2019-20 (Wales)	2020-21 (Wales)	2021-22 (Wales)
Asthma	7	6	7	7	7	7	7	7	7
Atrial fibrillation	3	3	3	4	4	4	2	2	2
Cancer	4	4	4	4	5	5	3	3	3
Chronic obstructive pulmonary disease	3	3	3	2	2	2	2	2	2
Secondary prevention of coronary heart disease	4	4	4	4	4	4	4	4	3
Dementia	1	1	1	1	1	1	1	1	1
Diabetes mellitus (patients aged 17+)	8	8	8	9	9	9	8	8	8
Epilepsy (patients aged 18+)	1	1	1	1	1	1	1	1	1
Heart failure	1	1	1	1	1	1	1	1	1

	2019-20 (North Pembrokeshire)	2020-21 (North Pembrokeshire)	2021-22 (North Pembrokeshire)	2019-20 (South Pembrokeshire)	2020-21 (South Pembrokeshire)	2021-22 (South Pembrokeshire)	2019-20 (Wales)	2020-21 (Wales)	2021-22 (Wales)
Hypertension	17	17	17	19	19	19	16	16	16
Learning disability	0	0	0	1	1	1	0	0	0
Mental health	1	1	1	1	1	1	1	1	1
Obesity (patients aged 16+)	9	8	10	11	10	13	10	10	12
Osteoporosis (patients aged 50+)	0	0	0	1	1	1	1	1	1
Palliative care	1	0	0	0	0	0	0	0	0
Rheumatoid Arthritis (patients aged 16+)	1	1	1	1	1	1	1	1	1
Stroke and transient ischaemic attack	2	2	2	3	3	3	2	2	2

Quality Assurance and Improvement Framework (QAIF) disease registers by local health board, cluster and GP practice (gov.wales) (accessed 26/20/2023)

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>2</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.

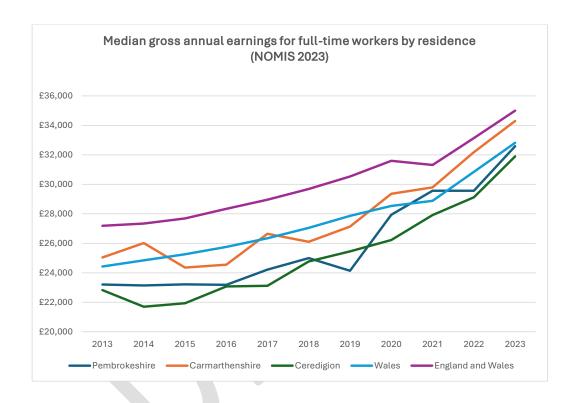
B16

<sup>&</sup>lt;sup>2</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 Open Space: Morris, N. (2003) *Health, Well-Being and Open Space Literature Review*, accessed 16 February 2007)

Income & Employment

Year	Pembrokeshire	Carmarthenshire	Ceredigion	Wales	England and Wales
2012	£21,911	£23,712	£21,354	£23,918	£26,643
2013	£23,208	£25,045	£22,822	£24,427	£27,189
2014	£23,141	£26,015	£21,698	£24,848	£27,346
2015	£23,220	£24,354	£21,937	£25,254	£27,693
2016	£23,184	£24,551	£23,074	£25,755	£28,340
2017	£24,210	£26,641	£23,120	£26,339	£28,953
2018	£24,992	£26,098	£24,772	£27,043	£29,684
2019	£24,134	£27,133	£25,455	£27,858	£30,537
2020	£27,934	£29,356	£26,223	£28,530	£31,600
2021	£29,562	£29,795	£27,919	£28,886	£31,319
2022	£31,171	£32,337	£29,165	£30,821	£33,101

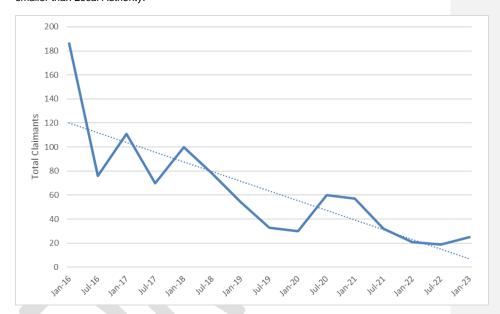
Median gross annual earnings for full-time workers by residence (NOMIS 2023)



Full-time workers in Pembrokeshire generally earn less than the average earnings for full-time workers in Wales and England and Wales.

#### **Unemployment rates**

The graph below shows the total Job Seekers Allowance Claimants for 2011 Lower Super Output Areas that have their population weighted centroid within the National Park. The months of January and July are used to show the degree of seasonal variation, which can be seen most prominently between January 2016 and July 2018 following a significant drop in claimant rates after January 2016. This seasonality begins to taper off after July 2018. The overall trend is one of decline in the rates of JSA claims in the National Park. Whilst this is not an official measure of unemployment it is the only indicative statistic available for areas smaller than Local Authority.



#### 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 Area³ (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 are considering whether to update the 2011 Travel To Work Areas using Census 2021

<sup>&</sup>lt;sup>3</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	PCNP Census 2021	Pembrokeshire 2021	Wales 2021
A, B, D, E Agriculture, energy and water	8.6	7.4	3.7
C Manufacturing	4.7	5.9	8.7
F Construction	9.8	10.4	8.6
G Wholesale and retail trade; repair of motor vehicles and motor cycles	12.4	14.7	14.5
H Transport and storage	2.5	3.6	3.8
I Accommodation and food service activities	13.2	8.6	5.2
J Information and communication	1.7	1.6	2.7
K Financial and insurance activities	1.1	1	2.9
L Real estate activities	1.2	1	1.3
M Professional, scientific and technical activities	5	4	4.4
N Administrative and support service activities	5.6	4.5	4.2
O Public administration and defence; compulsory social security	6.4	7.8	9.2
P Education	8.1	8	9.6
Q Human health and social work activities	13.8	16.5	17
R, S, T, U Other	5.9	4.9	4.2

Data source: 2021 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.

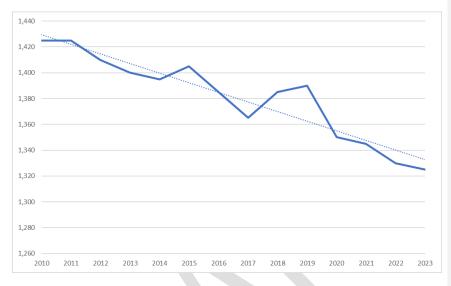
Employment Sizeband	Pembrokeshire	Wales
Micro (0 to 9)	85.71	83.32
Small (10 to 49)	12.71	13.71
Medium-sized (50 to 249)	1.43	2.58
Large (250+)	0.15	0.39

UK Business Counts - local units by industry and employment size band (ONS 2023)

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 2023.



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

Area	1991	2001	2011	2021
Wales	3.45	2.49	1.7	1.8
Pembrokeshire	9.44	6.83	4.7	5.3
Newport	12.5	6.67	5.24	TBC
Dinas Cross	38.36	20.83	14.65	TBC
St Davids	18.67	9.59	6.31	TBC
The Havens	14.29	9.7	8.53	TBC
St Ishmaels	16.13	10.48	7.75	TBC
Amroth	12.2	5.05	5.06	Data to come

Source: Census 1991, 2001 & 2011

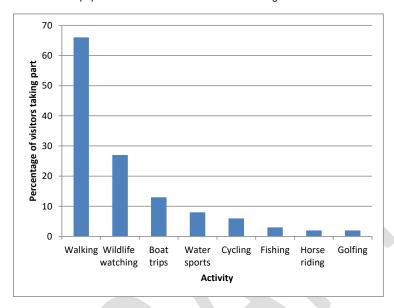
#### **Tourism**

The STEAM Report for Pembrokeshire Coast National Park for 2021 provides an overview of the economic impact of tourism on the National Park. The headline figures from this report are presented below.

- The National Park received 2.35 million Tourism Visits during 2021
- Visitors staying overnight within the Park boundary as part of a holiday or short break accounted for 1.2 million visits and 6.5 million nights in local accommodation. Visitors staying within the Park's wider Influence Area created an additional 3.3 million nights from 567 thousand visits.
- 7.7 million Visitor Days generated by visitors to Pembrokeshire Coast National Park in 2021
- A total of £435 million was generated within the park boundary through visitor and tourism business expenditure. A further £172 million came from the Influence Area.
- Day Visits generated £43 million for the local economy in 2021.
- Visitor Numbers +66% between 2020 and 2021.
- Visitors to the Park and IA played a vital role in supporting over 9,600 full time equivalent jobs.
- In total. staying visitors within the Park boundary generated a total economic impact of £392 million.
- Staying visitors spent £129 million on accommodation in the Park staying 5.6 nights on average.
- Economic Impact +95% between 2020 and 2021.
- Total Visitor Days within the Park +102% between 2020 and 2021.

#### 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.



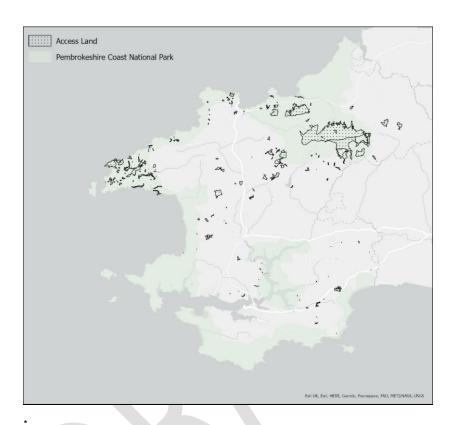
Source: Pembrokeshire Visitor Survey 2012

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.

Rights of Way Network	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%
Total	769.86	613.32	79.67%

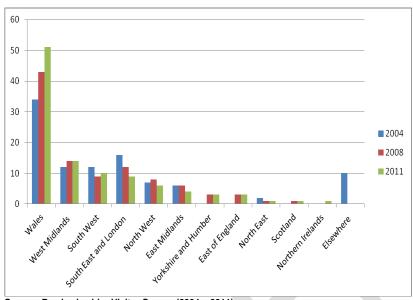
Source: PCNPA ROW Team (August 2017)

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.

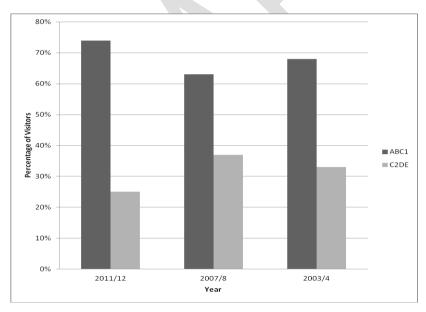


The origin of visitors to Pembrokeshire as determined by the Pembrokeshire Tourism Survey is shown in the following chart. The occupation group<sup>4</sup> (sometimes referred to as socioeconomic classification) of the visitors is shown in the subsequent chart. Between the surveys of 2004 and 2011 a 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.

<sup>&</sup>lt;sup>4</sup> For details of these groups see 'Occupation Groups' taken from Occupation Groupings: A Job Dictionary, 6th edition, 2006.



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>5</sup>, with the percentages in Pembrokeshire and Wales for comparison.

Census	No qualifications	Level 1	Level 2	Level 3	Level 4/5	Other qualifications / level unknown
PCNP (2011 Census)	21.4	12.2	16.4	10.8	30.9	4.2
PCNP (2021 Census)	17.3	7.8	13.8	16.0	36.8	8.2
Pembrokeshire (2011 Census)	24.6	13.6	16.8	11.8	24.8	8.45
Pembrokeshire (2021 Census)	18.8	9.1	15.1	17.0	31.2	8.7
Wales (2011 Census)	25.9	13.3	15.7	12.3	24.5	4.3
Wales (2021 Census)	19.9	8.7	14.4	17.2	31.5	8.3

Data source: 2021 and 2011 Census

## Access to services

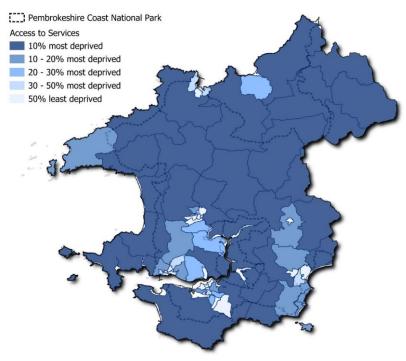
Most County Council Wards in the National Park are classified amongst the 10% most deprived in Wales in the Access to Services domain of the Welsh Index of Multiple Deprivation (WIMD) 2019. The exceptions were St David's, Newport and the area around Tenby and Saundersfoot. The Access to Services domain of the WIMD considers access to: a food shop; GP surgery; primary school; post office; public library; leisure centre; NHS dentist; and secondary school.

5

**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, Heath Visitor.

The Welsh Index of Multiple Deprivation (WIMD) 2019



Contains public sector information licensed under the Open Government Licence v3.0.

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%
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%

Service	Rural	Urban	All
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

The table below shows the proportion of Welsh speakers in the National Park and the County of Pembrokeshire at the 2001, 2011 and 2021 censuses.

Area	Welsh speakers 2001 Census (%)	Welsh speakers 2011 Census (%)	Welsh Speakers 2021 Census (%)
Pembrokeshire Coast National Park	23.3	21.5 (-1.8%)	19.4% (-2.1%)
Pembrokeshire	21.5	18.4 (-3.1%)	20.7 (+2.3%)

Source: ONS (Office for National Statistics: Welsh skills (speaking), Wales: Census 2021)

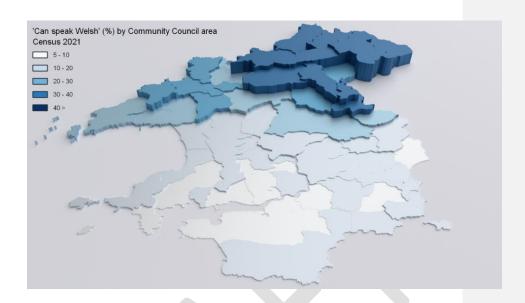
The prevalence of Welsh speakers varies significantly across the county, the table and map below provide figures and show the proportion of persons who could speak Welsh at the 2021 census by Community Council Area.

Community	Total: All usual residents aged 3 years and over	Cannot speak Welsh (Count)	Can speak Welsh (Count)	Can speak Welsh (%)
Ambleston	402	288	114	28.36
Amroth	1216	1095	121	9.95
Angle	350	320	30	8.57
Boncath	760	355	405	53.29
Brawdy	900	709	191	21.22

Community	Total: All usual residents aged 3 years and over	Cannot speak Welsh (Count)	Can speak Welsh (Count)	Can speak Welsh (%)
Burton	1267	1130	137	10.81
Camrose	1747	1488	259	14.83
Carew	1475	1312	163	11.05
Cilgerran	1509	798	711	47.12
Clynderwen	896	527	369	41.18
Clydau	703	375	328	46.66
Cosheston	815	744	71	8.71
Crymych	1713	702	1011	59.02
Cwm Gwaun	305	137	168	55.08
Dale	188	170	18	9.57
Dinas Cross	754	428	326	43.24
East Williamston	1860	1641	219	11.77
Eglwyswrw	763	344	419	54.91
Fishguard & Goodwick	5326	3785	1541	28.93
Freystrop	526	462	64	12.17
Haverfordwest	11742	10284	1458	12.42
Hayscastle	447	312	135	30.2
Herbrandston	410	359	51	12.44
Hook	933	824	109	11.68
Hundleton	793	726	67	8.45
Jeffreyston	558	488	70	12.54
Johnston	2148	1935	213	9.92
Kilgetty/Begelly	2206	1969	237	10.74
Lampeter Velfrey	1115	926	189	16.95
Lamphey	877	788	89	10.15

Community	Total: All usual residents aged 3 years and over	Cannot speak Welsh (Count)	Can speak Welsh (Count)	Can speak Welsh (%)
Letterston	1217	807	410	33.69
Llanddewi Velfrey	383	282	101	26.37
Llandissilio West	478	225	253	52.93
Llangwm	803	724	79	9.84
Llanrhian	884	533	351	39.71
Llanstadwell	785	710	75	9.55
Llawhaden	613	484	129	21.04
Maenclochog	730	360	370	50.68
Manorbier	1243	1109	134	10.78
Manordeifi	540	294	246	45.56
Marloes & St Brides	307	258	49	15.96
Martletwy	576	496	80	13.89
Mathry	491	334	157	31.98
Merlin's Bridge	2152	1896	256	11.9
Milford Haven	14329	13195	1134	7.91
Mynachlogddu	505	335	170	33.66
Narberth	2952	2328	624	21.14
Nevern	854	489	365	42.74
New Moat	417	281	136	32.61
Newport	1027	609	418	40.7
Neyland	3232	3012	220	6.81
Nolton & Roch	807	700	107	13.26
Pembroke	7742	7109	633	8.18
Pembroke Dock	9344	8638	706	7.56
Penally	803	687	116	14.45
Pencaer	422	276	146	34.6

Community	Total: All usual residents aged 3 years and over	Cannot speak Welsh (Count)	Can speak Welsh (Count)	Can speak Welsh (%)
Puncheston	521	272	249	47.79
Rosemarket	555	502	53	9.55
Rudbaxton	1135	950	185	16.3
Saundersfoot	2313	2075	238	10.29
Scleddau	1044	747	297	28.45
Solva	789	627	162	20.53
Spittal	480	404	76	15.83
St Davids	1739	1314	425	24.44
St Dogmaels	1205	705	500	41.49
St Florence	908	819	89	9.8
St Ishmaels	446	403	43	9.64
St Mary Out Liberty	780	675	105	13.46
Stackpole & Castlemartin	548	491	57	10.4
Templeton	1038	881	157	15.13
The Havens	1102	969	133	12.07
Tiers Cross	543	461	82	15.1
Uzmaston, Boulston and Slebech	676	553	123	18.2
Walwyns Castle	301	271	30	9.97
Wiston	1096	858	238	21.72
Wolfscastle	637	450	187	29.36
Tenby	3996	3547	449	11.24



#### Welsh Language dialect (Pembrokeshire)

Parts of Pembrokeshire are known as the land of "Wês, wês" due to the dialect of Welsh spoken in these areas. One of the central characteristics of Pembrokeshire Welsh is that the syllable 'oe' is pronounced as 'ŵe' or 'wê' in single syllables in the dialect. So 'oes' becomes 'wês' (yes), 'oer' becomes 'wer' (cold) 'ddoe' becomes 'dwê' (yesterday) and 'coed' becomes 'cwêd' (tree).

Other words found in the Pembrokeshire dialect include 'perci' for 'caeau' (fields), 'cered' for 'cerdded' (to walk), 'tewi" for 'tywydd' (weather) and 'wsnoth' for 'wythnos' (week)[1].

The distinct Welsh dialect of Pembrokeshire can be heard in the northern area of the National Park.

## The South Pembrokeshire dialect

The South Pembrokeshire dialect is highly flavoured by the Anglo-Norman settlement of the area when the Welsh language was increasingly replaced with the English spoken by settlers from the West Country. Many Flemish traders were encourage to settle here in the early twelfth century, with Flemish still being spoken some four centuries later.

The historically intermediate zone between the 'Englishry' and 'Welshry' (later labelled the 'Landsker') is still apparent linguistically. However the 'Landsker' is likely to continue to become less distinct over time as Welsh-speaking develops across Pembrokeshire, supported by Welsh language education opportunities.

Many words commonly used in the area stem from the settlers from the west of England - words such as culm (small coal), drang (alleyway), lake (confusingly, river) and evil (hay-fork).

<sup>[1]</sup> Rhint y Gelaets a'r Grug, Tafodiaith Sir Benfro, Wyn Owens, Y Lolfa, 2013

A few words have Flemish origins such as 'slop' (gap in a hedge) and hadridge (wild charlock).

Many placenames exist from this period, for example the suffix 'ton' is typical of English settlement. The survival also of many Welsh placenames across the area, such as Pwllcrochan and Rhoscrowther, suggests that pockets of the Welsh language also continued to thrive. Some older placenames did inevitably change - Merthyr Tywai becoming Martletwy for example.

There are many wonderful dialect words still in use today. 'Why aye' and 'Why no' are still common, 'in a caffle' or 'all to clush' (muddled), 'kift (awkward), 'pile' (to throw), grip' (ditch) and 'stumming' (hot) or stivvling (cold). Some lovely words and phrases describe personal characteristics such as 'tamping' (angry) 'plenty of kidney' (boastful) a 'hernie' (sly person), 'talking rammas' (telling tall tales) and 'slammocky' (untidy person).

Local people still use their own pronunciation for placenames. These include 'Langum' (Llangwm), 'The Ross' (The Rhos), 'La-hadden' (Llawhaden), 'Landewy' (Llanddewi Velfey) and Sandersfoot (Saundersfoot). Some placenames are clipped such as 'Harfat' (Haverfordwest), 'Tish' (St Ishmaels) and 'Satson' (Sageston).

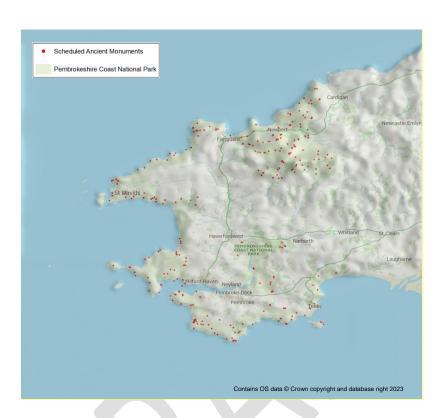
Finally, there is the almost forgotten Tenby 'backslang' invented to confound the Brixham trawlermen in the nineteenth century. The rule is to move the first letter of a word to its end and then add an 'a'. Thus, Tenby becomes 'Enbyta'.

#### 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 10000 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 (September 2021). However, the data is not comprehensive and no trend data is currently available.

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

Current Condition	Count
Favourable	196
not assessed	5
Unfavourable	68

Source: CADW (2021)

There are 14 Conservation Areas within the National Park, with the addition of Newport Parrog in 1999. Tenby Conservation area was extended in 2019. The National Park Authority also produced and adopted a "Conservation Area Proposals" Supplementary Planning Guidance (SPG) in October 2022.

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.

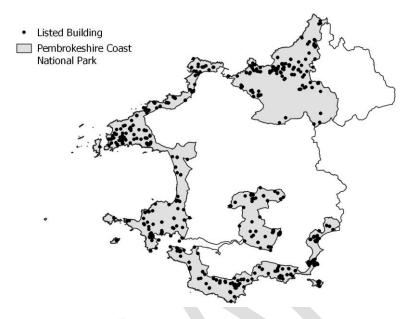
Details of the Park's Conservation areas including size and location can be found in the table and map below.

Settlement	Area (hectares)
Angle	166.815
Caerfarchell	9.836
Caldey Island	97.028
Little Haven	5.435
Manorbier	41.266
Newport &Parrog	33.43
Portclew	2.85
Porthgain	112.32
Saundersfoot	20.73
Solva	62.366
St Davids	32.75
Tenby	120.614
Trefin	9.797



There over 1200 listed buildings in the National Park, 33 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 Pembrokeshire Coast National Park



Designated Historic Asset GIS Data, The Welsh Historic Environment Service (Cadw), 2023, licensed under the Open Government Licence, Contains OS data © Crown copyright [and database right] 2023.



Listed buildings in Newport

Designated Historic Asset GIS Data, The Welsh Historic Environment Service (Cadw), 2023, licensed under the Open Government Licence, Contains OS data © Crown copyright [and database right] 2023.



Designated Historic Asset GIS Data, The Welsh Historic Environment Service (Cadw), 2023, licensed under the Open Government Licence, Contains OS data © Crown copyright [and database right] 2023.

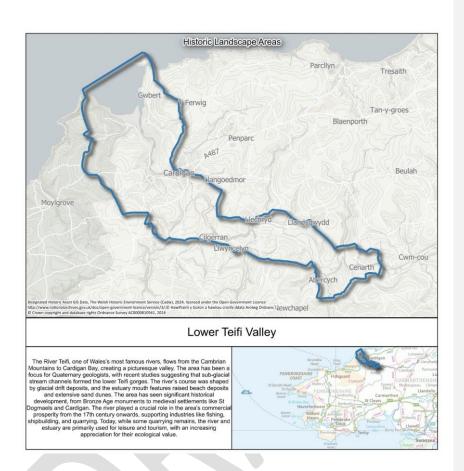


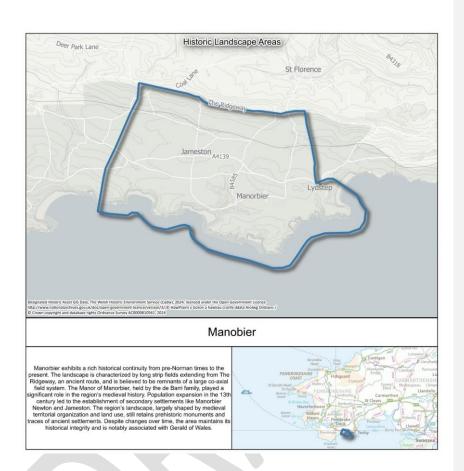
Listed buildings in Tenby

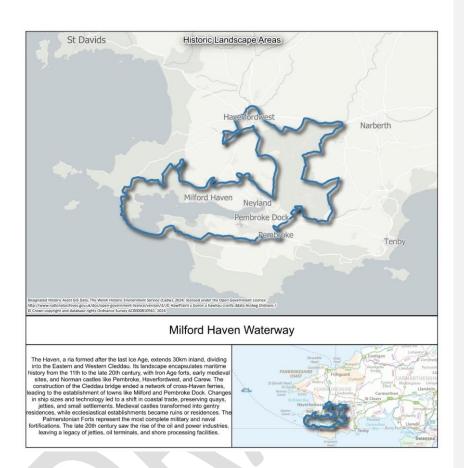
Designated Historic Asset GIS Data, The Welsh Historic Environment Service (Cadw), 2023, licensed under the Open Government Licence, Contains OS data © Crown copyright [and database right] 2023.

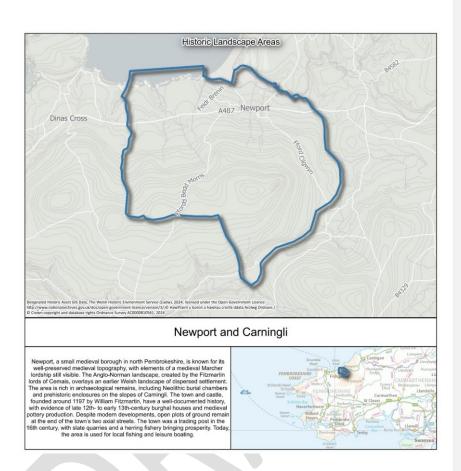
There are 9 Historic Landscape areas all or partly within the National Park. These are: Mynydd Preseli; St David's Peninsula & Ramsey Island; Skomer Island; Milford Haven Waterway; Newport & Carningli; Pen Caer; Stackpole Warren; the Lower Teifi Valley; and Manorbier. They are shown on the following maps:

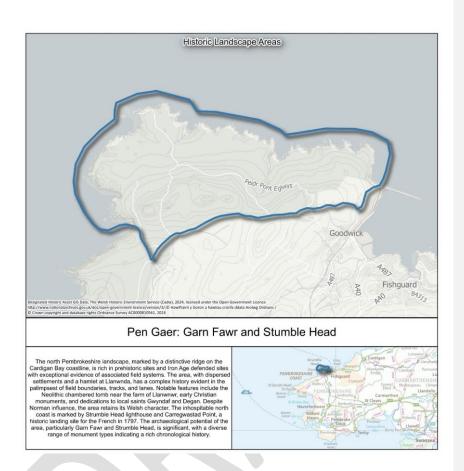


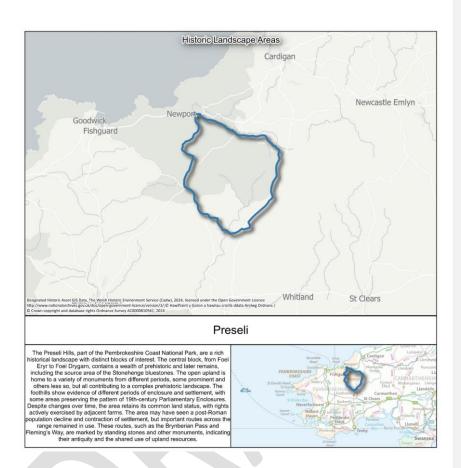


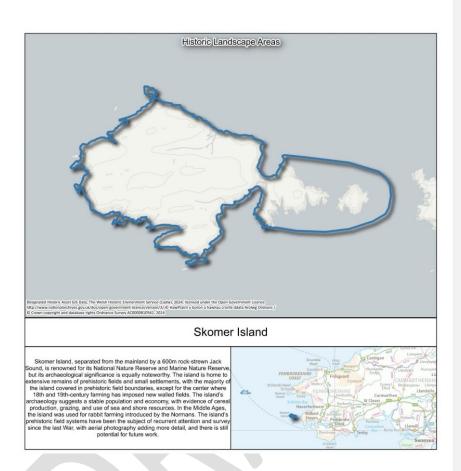


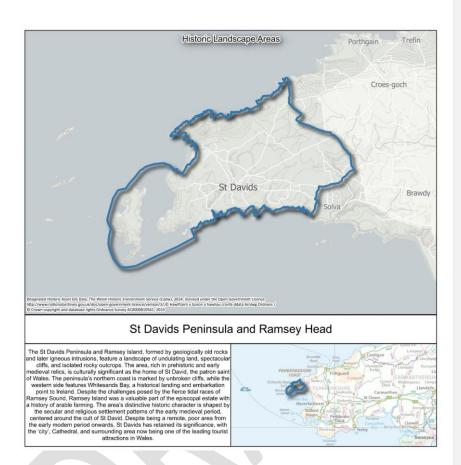


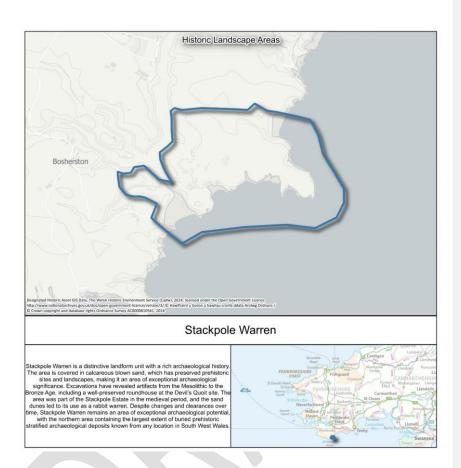




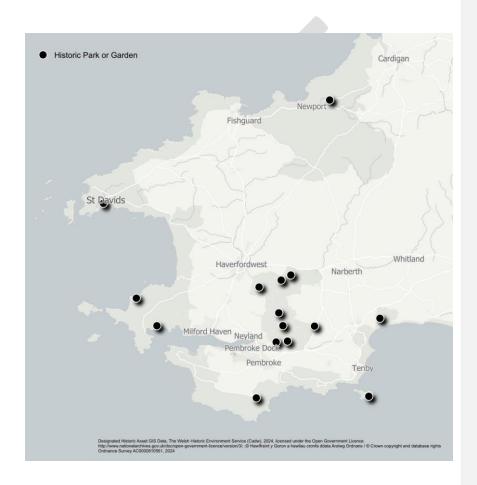








There a 15 historic Parks and Gardens in the National Park: Boulston Old Hall; Colby Lodge; Cosheston Hall; Cresselly; Lawrenny; St Brynachs Churchyard; St Brides Castle; Upton Castle; Warpool Court Hotel; Caldey Priory; Trewarren; Picton Castle; Slebech Park; Coedcanlas; and Stackpole Court. These are shown on the map below:





B50

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.

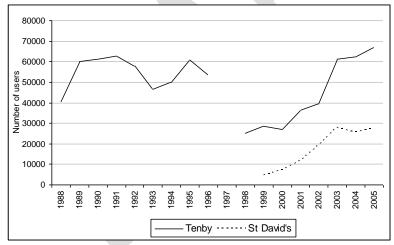
#### Transport

# Car ownership

At the 2021 Census 86.2% of households owned at leas one car or van with just 13.7% owning no cars or vans at all. Compared to Wales as a whole, where 19.4% of households have no cars or vans.

#### Use of cars by visitors

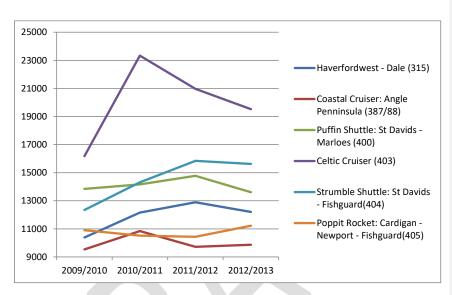
The Pembrokeshire Visitor Survey conducted in 2012 found that 88% of visitors travelled to Pembrokeshire by car (this is down 3% on 2003/4). Park and Ride schemes have operated in Tenby since 1988 and St David's since 1999. The numbers of users of the Park and Ride schemes are shown in the following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



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

Service	2009/2010	2010/2011	2011/2012	2012/2013
Haverfordwest - Dale (315)	10386	12155	12892	12205
Coastal Cruiser: Angle Penninsula (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

Service	2009/2010	2010/2011	2011/2012	2012/2013
Poppit Rocket: Cardigan - Newport - Fishguard(405)	10905	10520	10433	11221
Total	73195	85321	84616	82046



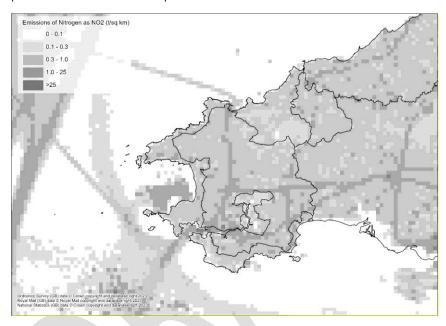
## **Pembrokeshire County Council**

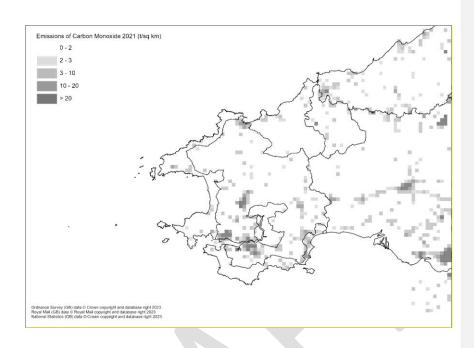
In order to monitor use of private road transport, more monitoring data for roads within and leading into the National Park is needed.

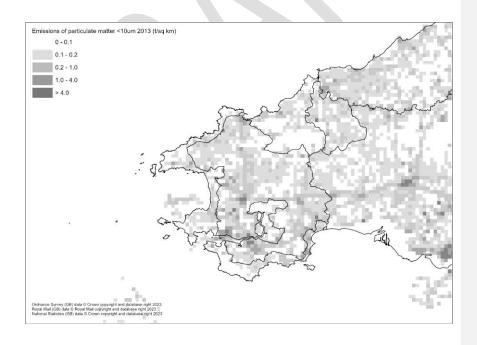
# Pollution

# 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 (National Atmospheric Emissions Inventory). Emissions maps for Pembrokeshire in 2021 are presented below for Oxides of Nitrogen (NOx) and Carbon Monoxide, and the 2021 emissions map for particulate matter smaller than  $10\mu m$ .







There is one automatic air quality monitoring station operating in Pembrokeshire:

Near Narberth on a rural site near the B4314 (grid ref SN146127), operated on behalf of DEFRA since 1997.



# Narberth Automatic Air Quality Monitoring Station: Annual Averages

Emissions	2018	2019	2020	2021	2022	2023
NOx as NO <sub>2</sub> (max daily mean μm <sup>-3</sup> )	21	19	17	17	16	18
Particulates <10µm (max daily mean µm <sup>-3)</sup>	28	44	62	41	60	39

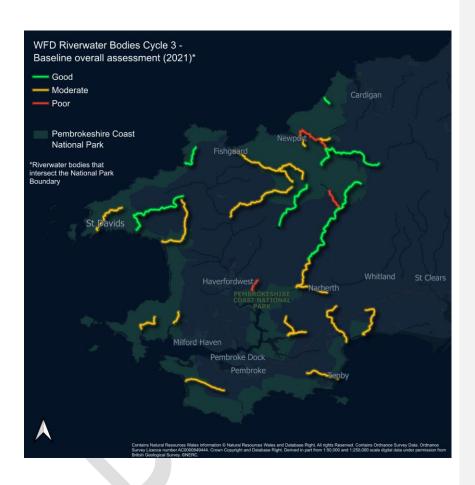
Source: Welsh Air Quality Forum

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 2021. 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



Status	Length(m)	Percent
Good	29183	28.70%
Moderate	60726	59.73%
Poor	11761	11.57%

Data source: NRW (Water Framework Directive (WFD) Regulations Cycle 3 Classification | DataMapWales (gov.wales))

# Overall status of water bodies in the National Park under the WFD classification system

Water Body Category	Total No. Water Bodies	High	Good	Moderate	Poor	Bad	Not yet assessed
River	85	0	13	69	3	0	0
Lake	4*	0	1	2	1	0	0
Transitional	5	0	2	3	0	0	0
Coastal	5	0	2	3	0	0	0
Ground Water	5	0	2	0	3	0	0

Source: Natural Resources Wales (2021)

· Bosherston Lily Ponds is divided into three distinct sections

#### Water resources

Water availability for licensing is set out in Natural Resources Wales' Abstraction Licensing Strategies. These provide an overview of where and how much water is available for new abstraction licences, taking into account existing abstractions and environmental requirements.

River flows change naturally throughout the year, and the objective is to protect flow variability. Resource availability is calculated at four different flows, Q95 (lowest flows), Q70, Q50 and Q30 (highest flows). This information gives a realistic picture of the current resource availability within a given water body (sub-catchment surface water unit or groundwater unit).

The legal framework provides a very high level of protection to Special Areas of Conservation and Special Protection Areas. Ramsar sites and Sites of Special Scientific Interest also carry a high level of environmental importance. All new licence applications near or within these sites are subject to assessment under the Habitats Directive for potential impacts on site features, alone and in combination with other licences. The Habitats Directive Review of Consents led to some licences being changed and the Eastern and Western Cleddau now have a status of 'No Water Available' (rather than 'Over Licensed').

Natural Resources Wales' *Cleddau and Pembrokeshire Coastal Rivers Abstraction Licensing Strategy* (May 2014) sets out resource availability for specified assessment points. The published resource availability has not been updated since 2014, but Natural Resources Wales updates the source data in order to advise on applications for new abstraction licences and changes to existing ones.

# Water availability for the assessment points of the Cleddau catchments

Ref	Name	Water Resource availability at Q95
1	Western Cleddau at tidal limit	Water not available for licensing
2	Western Cleddau at Prendergast Mill gauging station	Restricted water available for licensing
3	Western Cleddau at Treffgarne	Restricted water available for licensing
4	Western Cleddau at Castlemorris	Restricted water available for licensing
5	Cartlett Brook	Water available for licensing
6	Anghof at Wolfscastle	Restricted water available for licensing
7	Eastern Cleddau at tidal limit	Water not available for licensing
8	Eastern Cleddau at Canaston Bridge gauging station	Water not available for licensing
9	Eastern Cleddau upstream of Syfynwy	Water not available for licensing
10	Syfynwy upstream of Eastern Cleddau confluence	Water not available for licensing

# Water availability for the assessment points of the Pembrokeshire Coastal Rivers catchments

Assessment Point	Name	Water Resource availability at Q95
1	Nevern at tidal limit	Water available for licensing
2	Gwaun at tidal limit	Water available for licensing
3	Gwaun at Cilrhedyn Bridge gauging station	Water available for licensing
4	Alun at St. Davids gauging station	Water available for licensing
5	Solfach at Middle Mill gauging station	Water available for licensing
6	Gann Flats Stream	Water available for licensing

Assessment Point	Name	Water Resource availability at Q95
7	Westfield Pill	Water available for licensing
8	Castlemartin Corse	Water available for licensing
9	Ritec	Water available for licensing
10	Cresswell River	Water available for licensing

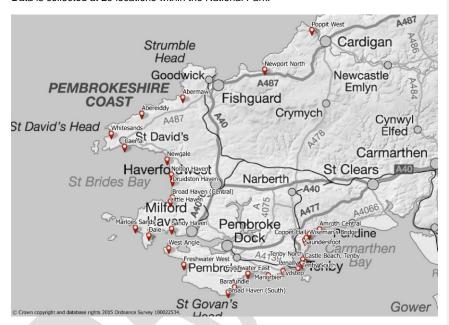
The Water Resources (Transitional Provisions) Regulations 2017 removed most groundwater exemptions from licensing control. Relevant abstractions in Pembrokeshire are covered by the transitional licensing arrangements.



#### **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>6</sup>.

Data is collected at 29 locations within the National Park:



Bathing Water Quality Classification Scale:



In 2022 all of the bathing water locations assessed in the National Park were classified as "Good" or "Excellent" (2 or 3 stars). In 2023, water quality in Tenby North returned to excellent, Amroth dropped to good and Wisemans Bridge dropped to sufficient.

**B60** 

<sup>&</sup>lt;sup>6</sup> For more information see Natural Resources Wales Bathing Water Quality web pages

Location	2011	2012	2013	2014	2015	2016	2022	2023
Year								
Abereiddy	No classification	Excellent						
Abermawr	No classification	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	No classification
Amroth Central	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good
Barafundle	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Broad Haven (Central)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Broad Haven (South)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Caerfai	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Castle Beach, Tenby	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Excellent	Excellent
Coppet Hall	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Dale	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Druidston Haven	No classification	Excellent						
Freshwater East	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Freshwater West	No classification	Excellent						

Location	2011	2012	2013	2014	2015	2016	2022	2023
Year								
Little Haven	No classification	Excellent	Excellent	Good	Good	Good	Excellent	Excellent
Lydstep	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Manorbier	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Marloes Sands	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Newgale	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Newport North	Good	Good	Good	Excellent	Good	Excellent	Excellent	Excellent
Nolton Haven	No classification	Sufficient	Excellent	Good	Good	Sufficient	Excellent	Excellent
Penally	No classification	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Poppit West	Excellent	Good	Good	Good	Excellent	Excellent	Excellent	Excellent
Sandy Haven	No classification	Good	Good	Good	Good	Sufficient	Excellent	Excellent
Saundersfoot	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Tenby North	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent
Tenby South	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Location Year	2011	2012	2013	2014	2015	2016	2022	2023
West Angle	Excellent	Good	Good	Good	Excellent	Excellent	Excellent	Excellent
Whitesands	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Wiseman's Bridge	No classification	Sufficient	Sufficient	Good	Good	Good	Good	Sufficient

#### Nitrate Vulnerable Zones

The Nitrates Directive (91/676/EEC) is designed to protect waters against nitrate pollution from agricultural sources. In April 2021, the designated Nitrate Vulnerable Zones in Wales were revoked by the introduction of the Water Resources (Control of Agricultural Pollution (Wales) Regulations. The Welsh Government has declared the whole of Wales a Nitrate Vulnerable Zone (NVZ).

#### **Climate Change**

#### Overview

Projections by the Met Office indicate that Wales can expect to experience more intense rainfall, more flooding in low-lying and coastal areas along with hotter drier summers. <sup>7</sup>

Projections for sea level rise set out in UKCP18<sup>8</sup> indicate that, in a moderate scenario, Wales would experience a sea level rise of 0.5m by 2100 with a high scenario of 1m. As a result of this it would be likely that coastal areas of Wales would suffer more frequent and severe flooding, coastal erosion would increase. The risk to infrastructure and communities would increase significantly as well.

#### **Flooding**

Risk of flooding in the National Park is mostly confined to river valleys and certain low lying coastal areas. Flood risk data and maps are provided by Natural Resources Wales in on DataMapWales (Welsh Government: DataMapWales) and as a interactive web application on the Natural Resources Wales website (Natural Resources Wales / Check your flood risk on a map (Flood Risk Assessment Wales Map). At present (Winter 2023) around 6% of addresses (residential, commercial and industrial) in the National Park are within areas identified as at risk of flooding from rivers or the sea by Natural Resources Wales. A further 1% are in areas identified to be at risk from flooding from surface water and small water courses. The table below provides a break down of the type and zone of risk:

	Address count	Addresses in a flood zone as a percentage of all address in the National Park
Total Addresses in a River or Sea Flood zone	1008	6%

#### **Broken Down into Flood Zone:**

	Address Count	Percentage of addresses in flood zone
Flood Zone 2	160	16%
Flood Zone 3	848	84%

<sup>&</sup>lt;sup>7</sup> Natural Resources Wales / Climate change overview

<sup>8</sup> UK Climate Projections (UKCP) - Met Office

	Address count	Addresses in a flood zone as a percentage of all address in the National Park
Addresses in a surface water or small water course flood zone	160	1%

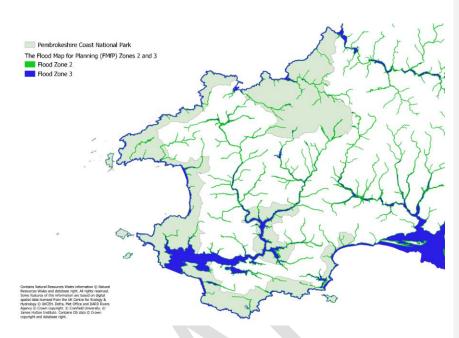
The data in the tables above is derived from The Flood Map for Planning (FMfP) and from OS Address Base Core (as accessed on 13/12/2023). Flood zones 2 and 3 are defined as the following:

#### Flood Zone 2:

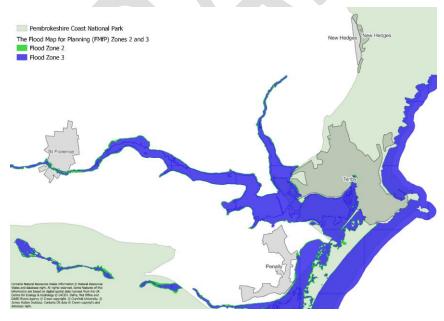
- Rivers with less than 1% (1 in 100) but greater than or equal to 0.1% (1 in 1,000) chance of happening in any given year, including an allowance for climate change.
- the Sea with less than 0.5% (1 in 200) but greater than or equal to 0.1% (1 in 1,000) chance of flooding in any given year, including an allowance for climate change.
- Surface water & small watercourses with less than 1% (1 in 100) but greater than or
  equal to 0.1% (1 in 1,000) chance of happening in any given year, including an
  allowance for climate change.

#### Flood Zone 3:

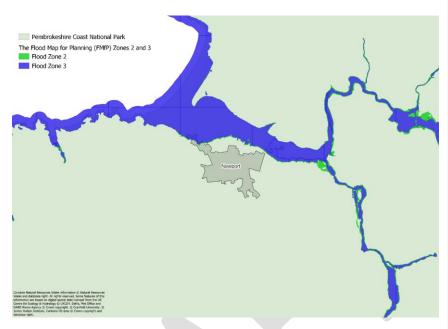
- rivers with a 1% (1 in 100) chance or greater of happening in any given year, including an allowance for climate change.
- the sea with a 0.5% (1 in 200) chance or greater of happening in any given year, including an allowance for climate change.
- Surface water & small watercourses with a 1% (1 in 100) chance or greater of happening in any given year, including an allowance for climate change.



Flood Map for Planning flooding zones. Source: Natural Resources Wales (December 2023)



Flood Map for Planning flooding zones Tenby area. Source: Natural Resources Wales (December 2023)

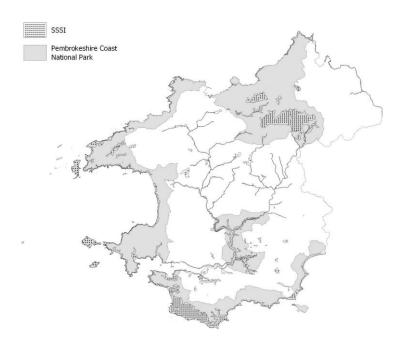


Flood Map for Planning flooding zones Newport area. Source: Natural Resources Wales (December 2023)

# **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 the national site network sites - Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) - has been provided by Natural Resources Wales, or obtained from the website of the Joint Nature Conservation Committee. More information on national site network 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.

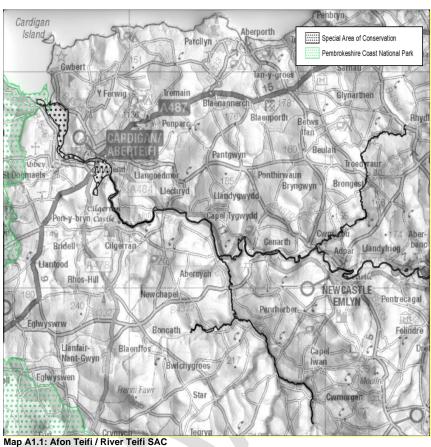
## **Special Areas of Conservation**

#### 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%).

Commented [PB1]: Yup! <u>Afon Teifi/ River Teifi - Special</u> Areas of Conservation (incc.gov.uk)



Feature	Condition
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Favourable: Unclassified
3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	Favourable: Unclassified
1096 Brook lamprey Lampetra planeri	Unfavourable: Recovered
1099 River lamprey Lampetra fluviatilis	Unfavourable: Recovered
1106 Atlantic salmon Salmo salar	Unfavourable: No change
1163 Bullhead Cottus gobio	Unfavourable: Unclassified
1355 Otter Lutra lutra	Favourable: maintained
1831 Floating water-plantain Luronium natans	Favourable: maintained
1095 Sea lamprey Petromyzon marinus	Unfavourable: Unclassified
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Favourable: Maintained

Feature	Condition
7110 Active raised bogs	Unfavourable: Un-classified
91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Unfavourable: Un-classified

More information: Joint Nature Conservation Committee: Afon Teifi / River Teifi. NRW have commented that they need to confirm the condition of the river features which has not yet been checked.

# 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%).

Mancroven

Map A1.2 Afonydd Cleddau / Cleddau Rivers SAC

**Commented [EG2]:** NRW comment that general site character text is wrong here

Commented [PB3R2]: Looks right on JNCC?

<u>Afonydd Cleddau/ Cleddau Rivers - Special Areas of Conservation (incc.qov.uk)</u>

Feature	Condition
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	
7110 Active raised bogs * Priority feature	
91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) * Priority feature	
1096 Brook lamprey Lampetra planeri	Unfavourable
1099 River lamprey Lampetra fluviatilis	Unfavourable
1163 Bullhead Cottus gobio	Unfavourable
1355 Otter Lutra lutra	Unfavourable
1095 Sea lamprey Petromyzon marinus	Unfavourable
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Favourable: Maintained
7110 Active raised bogs	Unfavourable

Commented [EG4]: Table is not correct

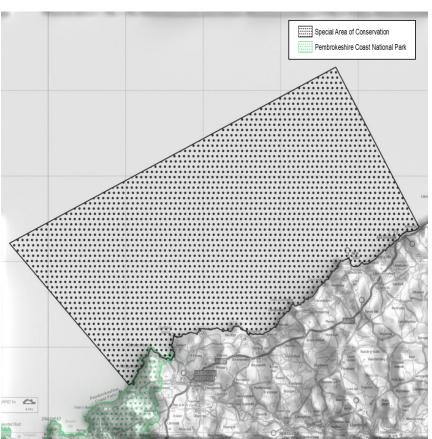
Commented [EG5R4]: Need to add in alluvial woodland, river with floating vegetation often dominated by water crowfood - unfacourable

More information: Joint Nature Conservation Committee: Afonydd Cleddau / Cleddau Rivers

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

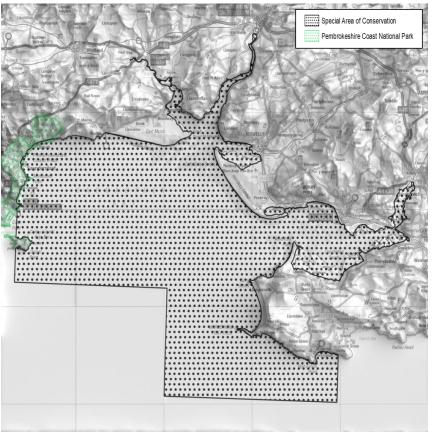
condition and trend information is provisional

More information: <u>Joint Nature Conservation Committee: Cardigan Bay / Bae Ceredigion</u>

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 Sandbanks which are slightly covered by sea water all the time	Favourable
1130 Estuaries	Favourable
1140 Mudflats and sandflats not covered by seawater at low tide	Favourable
1160 Large shallow inlets and bays	Favourable
1310 Salicornia and other annuals colonising mud and sand	Favourable
1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable
1103 Twaite shad Alosa fallax	Unfavourable: No Change
1095 Sea lamprey Petromyzon marinus	Unfavourable

Feature	Condition
1099 River lamprey Lampetra fluviatilis	Unfavourable
1102 Allis shad Alosa alosa	Unfavourable: No Change
1355 Otter Lutra lutra	Favourable

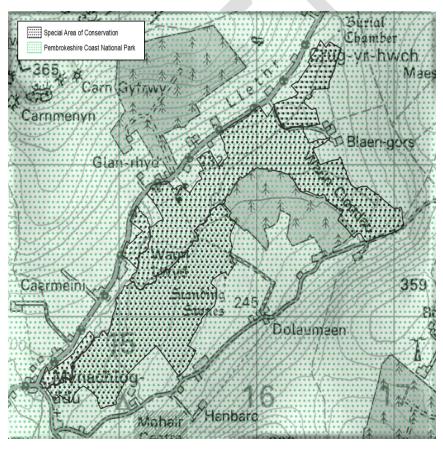
#### condition and trend information is provisional

More information: <u>Joint Nature Conservation Committee</u>: <u>Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd</u>

## 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

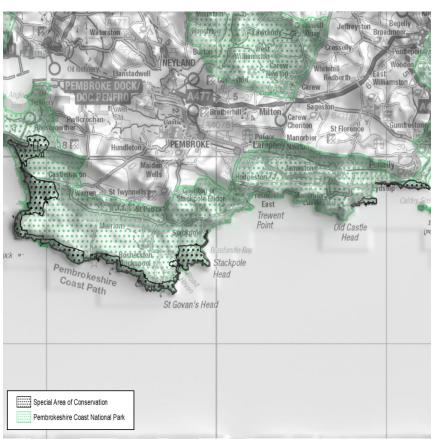
Feature	Condition
4010 Northern Atlantic wet heaths with Erica tetralix	Unfavourable: Recovering
7130 Blanket bogs	Unfavourable: Recovering
6410 Molinia Meadows	Unfavourable: Declining
7140 Transition mires and quaking bogs	Unfavourable: No change
7230 Alkaline fens	Favourable: Maintained
1065 <u>Marsh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

More information: Joint Nature Conservation Committee: Gweunydd Blaencleddau

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

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)

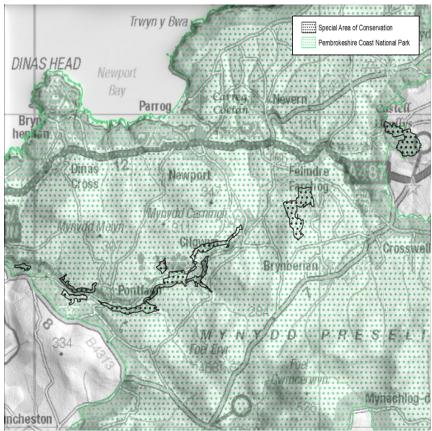
Feature	Condition
1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	Unfavourable: Un-classified
2130 Fixed dunes with herbaceous vegetation ('grey dunes')	Favourable
4030 European dry heaths	Unfavourable: Unclassified
6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates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

More information: Joint Nature Conservation Committee: Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru

## 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

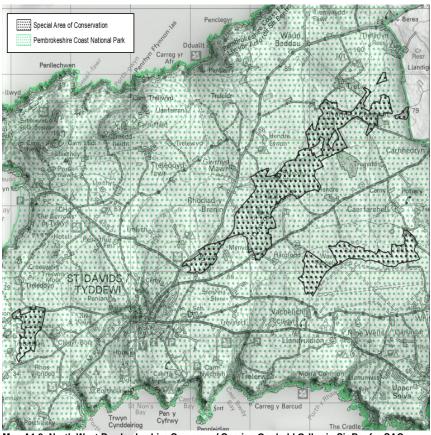
Feature	Condition
91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	Unfavourable: Declining
91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Favourable: Maintained
1308 Barbastelle Barbastella barbastellus	Favourable: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

More information: <u>Joint Nature Conservation Committee</u>: North Pembrokeshire Woodlands / <u>Coedydd Gogledd Sir Benfro</u>

# 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 Orllewin Sir Benfro SAC

Feature	Condition
4030 European dry heaths	Unfavourable: No-change
7140 Transition mires and quaking bogs	Unfavourable: No-change
4010 Northern Atlantic wet heaths with Erica tetralix	Unfavourable: Recovering
1831 Floating water-plantain Luronium natans	Unfavourable: Un-classified

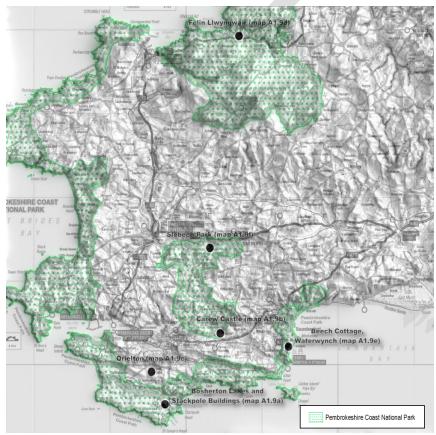
More information: <u>Joint Nature Conservation Committee</u>: North West Pembrokeshire <u>Commons / Comin Gogledd Orllewin Sir Benfro</u>

# <u>UK0014793 Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton</u>

#### 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%).

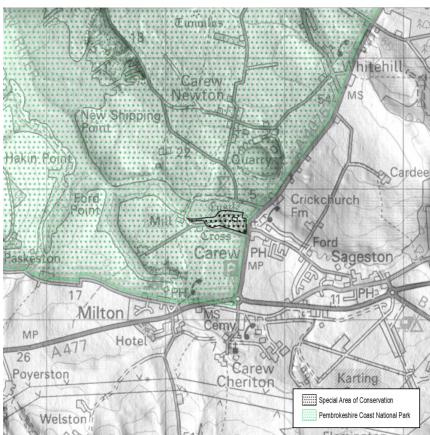
This SAC is comprised of a number of separate sites: Bosherston Lakes; Park House Outbuildings, Stackpole; Stackpole Courtyard Flats and Walled Garden; Felin Llwyngwair; Carew Castle; Beech cottage, Waterwynch; Slebech Stable Yard Loft, Cellars and Tunnels; and Orielton (outside the National Park).



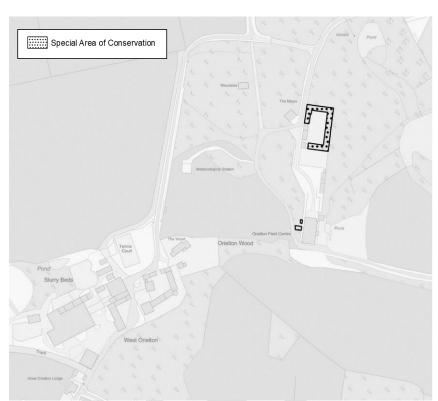
Map A1.9: Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC



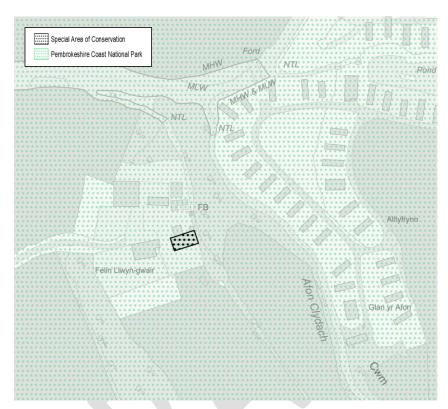
Map A1.9a: Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC



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



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



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



Map 1.9e: Pembrokeshire 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

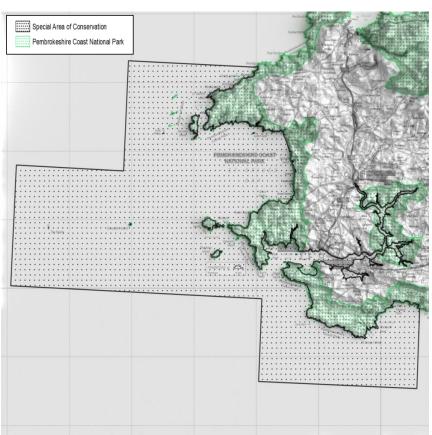
Feature	Condition
3140 <u>Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara spp.</i></u>	Unfavourable: Declining
1304 Greater horseshoe bat Rhinolophus ferrumequinum	Favourable: Maintained
1303 Lesser horseshoe bat Rhinolophus hipposideros	Unfavourable: Declining
1355 Otter Lutra lutra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

More information: <u>Joint Nature Conservation Committee</u>: <u>Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton</u>

# 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 Pembrokeshire Marine/ Sir Benfro Forol SAC

Feature	Condition
1130 Estuaries	Unfavourable: Declining
1160 Large shallow inlets and bays	Unfavourable: Declining
1170 <u>Reefs</u>	Unfavourable: No Change
1110 Sandbanks which are slightly covered by sea water all the time	Unfavourable: No Change
1140 Mudflats and sandflats not covered by seawater at low tide	Unfavourable: Declining
1150 Coastal lagoons	Favourable
1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable: Declining
8330 Submerged or partially submerged sea caves	Favourable
1364 Grey seal Halichoerus grypus	Unfavourable: No Change
1441 Shore dock Rumex rupestris	Favourable
1095 Sea lamprey Petromyzon marinus	Unfavourable: Declining
1099 River lamprey Lampetra fluviatilis	Unfavourable

Feature	Condition
1102 Allis shad Alosa alosa	No Data
1103 Twaite shad Alosa fallax	No Data
1355 Otter Lutra lutra	Favourable

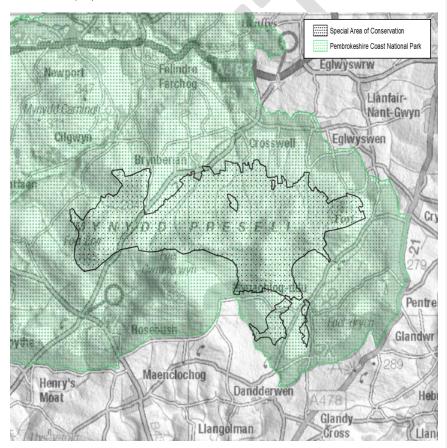
## condition and trend information is provisional

More information: <u>Joint Nature Conservation Committee: Pembrokeshire Marine / Sir Benfro Forol</u>

# 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

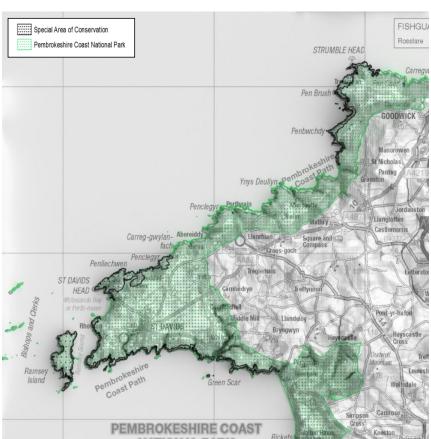
Feature	Condition
4010 Northern Atlantic wet heaths with Erica tetralix	Unfavourable: Un-classified
4030 European dry heaths	Unfavourable: Un-classified
7150 Depressions on peat substrates of the Rhynchosporion	Unfavourable: Declining
7230 Alkaline fens	Favourable: Un-classified
1044 Southern damselfly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

More information: Joint Nature Conservation Committee: Preseli

# 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 Vegetated sea cliffs of the Atlantic and Baltic coasts	Unfavourable: Recovering
4030 European dry heaths	Unfavourable: Recovering
1831 Floating water-plantain Luronium natans	Favourable: Maintained

More information: Joint Nature Conservation Committee: St David's / Ty Ddewi

## 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%).

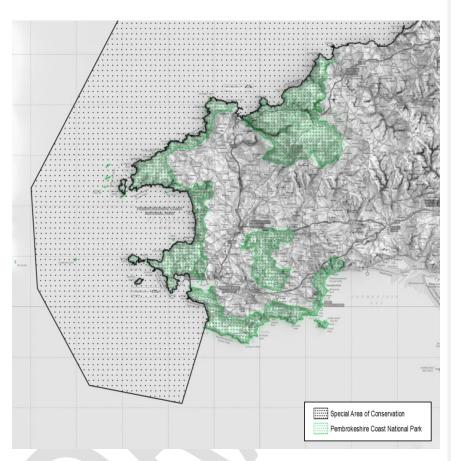


Map A1.13 Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC

Feature	Condition
1315 Harbour porpoise	No data at present

## More information:

<u>Joint Nature Conservation Committee: Bristol Channel Approaches / Dynesfeydd Môr Hafren MPA</u>

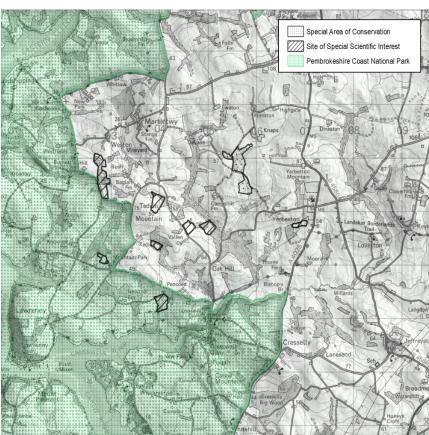


Map A1.14 West Wales Marine / Gorllewin Cymru Forol SAC

Feature	Condition
1315 Harbour porpoise	No data at present

More information:

Joint Nature Conservation Committee: West Wales Marine / Gorllewin Cymru Forol



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

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

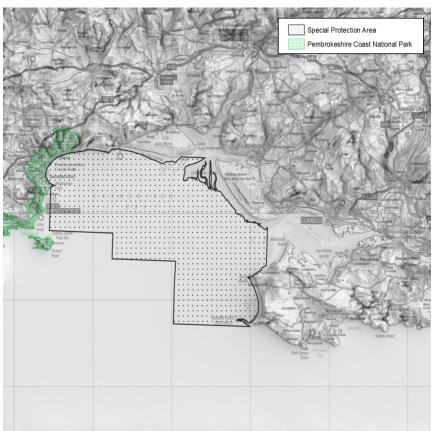
More information: Joint Nature Conservation Committee: Yerbeston Tops

# **Special Protection Areas**

UK9014091 Bae Caerfyrddin / Carmarthen Bay

General site character

Marine areas. Sea inlets (100%).



Map A1.16 Bae Caerfyrddin / Carmarthen Bay SPA

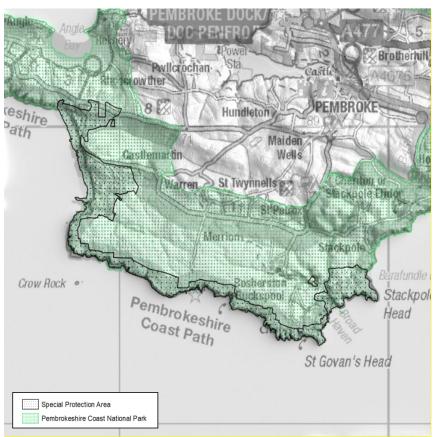
Annex 1 bird species	Condition
Common Scoter ( <i>Melanitta nigra</i> ), over-wintering area (Not available)	

More information: Bae Caerfyrddin / Carmarthen Bay: Natura 2000 - Standard Data Form

# 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 (Pyrrhocorax pyrrhocorax)	Favourable

More information: Castlemartin Coast: Natura 2000 - Standard Data Form;

# UK9014041 Grassholm

General site character

Shingle. Sea cliffs. Islets (100%)



Map A1.18 Grassholm SPA

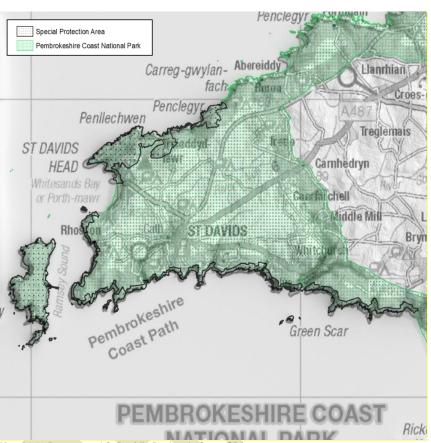
Annex 1 bird species		Condition
Gannet (Morus bassanus), breeding area		Favourable: Maintained

More information: Grassholm: Natura 2000 - Standard Data Form;

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

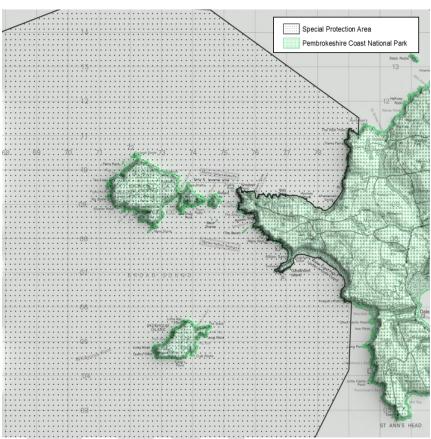
Annex 1 bird species	Condition
Chough (Pyrrhocorax pyrrhocorax)	Favourable: Un-classified

More information: Ramsey and St David's Peninsula: Coast Natura 2000 - Standard Data Form;

UK9014051 Skokholm and Skomer

General site character

Shingle. Sea cliffs. Islets (100%).

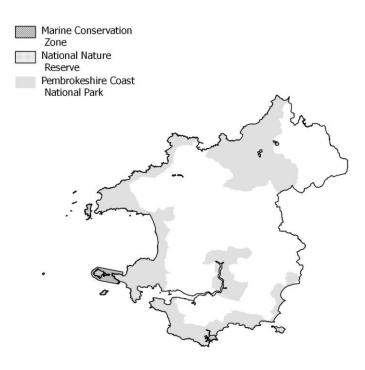


Map A1.20 Skokholm and Skomer SPA

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

More information: Skokholm and Skomer: Natura 2000 - Standard Data Form;

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



The 2016 State of Wildlife in Pembrokeshire update indicates that 22% of the conservation features in Pembrokeshire are improving; 35% are in a stable condition and 30% are in a state of decline. The remaining 13% are unknown due a lack of data. The Nature Recovery Plan for Pembrokeshire (2018) sets out the Pembrokeshire Nature Partnership's strategy for nature recovery in the county.

## 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
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>9</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

<sup>&</sup>lt;sup>9</sup> Two widely separated areas

GCR number	GCR site Name	Type of site (GCR 'Block')	GCR FEATURE CONDITION & TREND
pGCR	Freshwater West (South)	OLD RED SANDSTONE	FAVOURABLE no change
1765	Gasworks Lane	SILURIAN: LLANDOVERY	UNFAVOURABLE declining
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 – Abereiddi	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>10</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

<sup>&</sup>lt;sup>10</sup> Two widely separated areas

GCR number	GCR site Name	Type of site (GCR 'Block')	GCR FEATURE CONDITION & TREND
1072	Robeston Wathen	ORDOVICIAN: Caradoc - Ashgill	UNFAVOURABLE declining
1073	Shoalshook	ORDOVICIAN: Caradoc Ashgill	FAVOURABLE improved
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	VARSICAN 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	VARSICAN 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

GCR number	GCR site Name	Type of site (GCR 'Block')	GCR FEATURE CONDITION & TREND
621	Trwyn Cyndderiog	CAMBRIAN	UNKNOWN
1458	West Angle Bay	QUATERNARY, WALES	UNKNOWN
1733	West Angle Bay (North	OLD RED SANDSTONE	FAVOURABLE no change
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

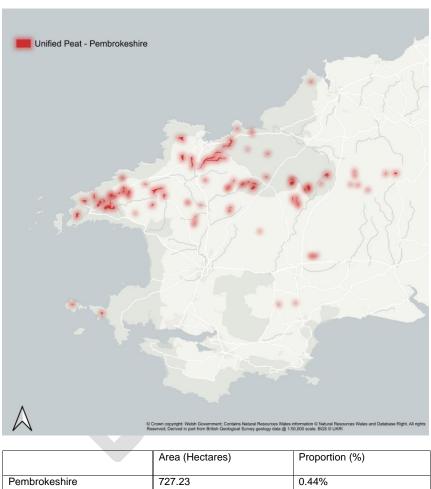
The National Soil Resources Institute (NSRI) at Cranfield University (<u>Cranfield University</u>) produce a range of soils data for use in Geographic Information Systems. Unfortunately, this data is only available at a cost that is beyond that justifiable for this authority.

**Commented [EG6]:** NRW suggest adding about peatland to the baseline

Commented [PB7]: Remove?

## Peatland

The unified peat map of Wales was produced as part of the Glastir Monitoring and Evaluation Programme in order to provide improved data on the extent and condition of peatland in Wales. The map below is a subset of the unified peat map of Wales for Pembrokeshire, with figures for the estimate extents of peat in the National Park.



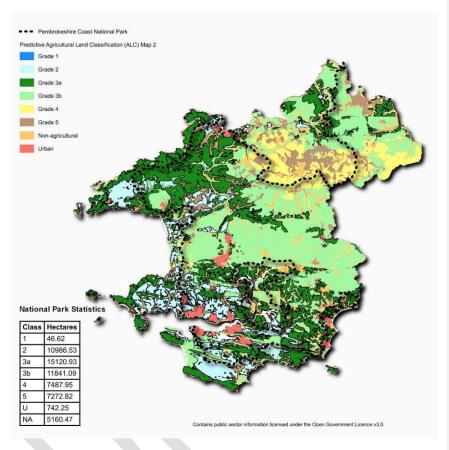
Area (Hectares) Proportion (%)

Pembrokeshire 727.23 0.44%

Pembrokeshire Coast National Park 0.63%

The Predictive Agricultural Land Classification (ALC) Map 2 by Welsh Government provides indicative data as to where in Wales the Best and Most Versatile (BMV) Agricultural land can be found. BMV is defined as agricultural land classes 1, 2 and 3a. The map below shows the

Predictive ALC 2 map data for Pembrokeshire and provides statistics for the National for each agricultural land classification.



Data source: Predictive Agricultural Land Classification (ALC) Map 2 | DataMapWales (gov.wales)

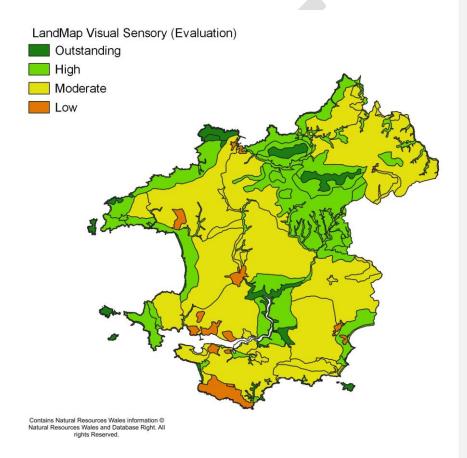
BMV makes up approximately 45% (44.59%) of the land in the National Park, with over a quarter (25.78%) of the land being classified as 3a; 18.73% as 2 and 0.08% as 1.

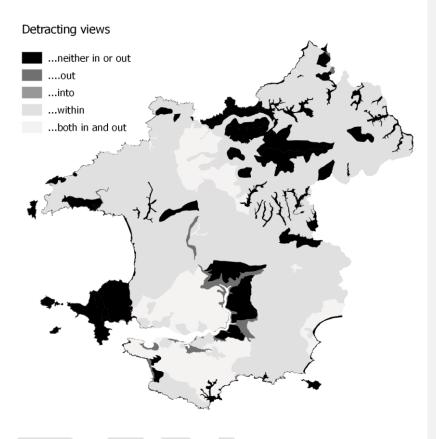
The proportion of BMV in the National Park is significantly higher than it is for Wales as a whole for classes 2 and 3a.

Class	PCNP (%)	Wales (%)
1	0.08	0.25
2	18.73	6.38
3a	25.78	9.58

## Landscape

LANDMAP is the national information system, devised by the Natural Resources 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.





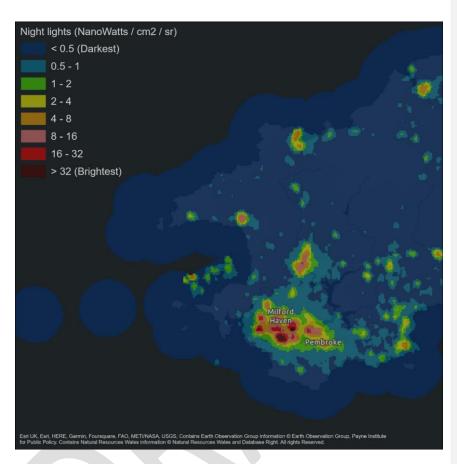
The Pembrokeshire Coast NPA has commissioned an integrated landscape characterisation based on the LandMap aspects; this has been published as a Background Paper to the Local Development Plan.

## **Tranquility/ Disturbance**

Major components of disturbance in rural areas are light and noise pollution.

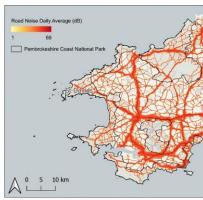
## Light Pollution:

Whilst there is no mapping available that shows light pollution over time accurately, a good baseline is the VIIRS Satellite data, the map below was produce by Natural Resources Wales as part of their tranquility and place work.

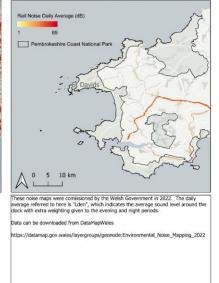


The major sources of light pollution within the National Park are the larger settlements. Some more localised sources include intensive agriculture and installations that sit outside of but close the National Park. The uplands (Preseli Hills) are largely undeveloped and represent the darkest parts of the National Park.

## Noise:



Contains public sector information licensed under the Open Government Licence v3.0. Contains OS data ® Crown copyright [and database right] 2024. Cynnwys data OS ∰ Hawlfraint y Goron [a hawliau cronfa ddata] OS 2024.



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.

Management	2018-19	2019-20	2020-21	2021-22	2022-23
Total Municipal Waste Collected/Generated	71044.55	66157.53	57727.02	64590.3	60443.52
Total Waste Reused/Recycled/Composted (Statutory Target)	44021.13	47403.01	42267.28	47307.1	43304.7
Waste sent for other recovery	0	20.97	0	0	0
Waste Incinerated with Energy Recovery	13801.58	13491.41	11184.93	13077.76	13247.63
Waste Incinerated without Energy Recovery	0	0	0	27.85	26.2
Waste Landfilled	13040.67	5053.8	3669.61	4275.09	3289.86

Management	2018-19	2019-20	2020-21	2021-22	2022-23
Percentage of Waste Reused/Recycled/Composted (Statutory Target)*	61.96	71.65	73.22	73.24	71.64

Source: Stats Wales

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.

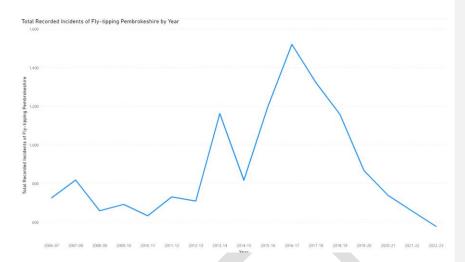
#### Litter

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.

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



# Recorded fly-tipping incidents by Local Authority. Source: <u>StatsWales</u>

After spiking significantly between 2014-15 and 2016-17, the frequency of fly tipping in Pembrokeshire has declined rapidly to its lowest point in temporal coverage of the dataset in 2022-23.

Minerals

As of April 2024, 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.