

Monmouthshire
Replacement Local Development
Plan

Sustainability Appraisal
Scoping Report

The Baseline Characteristics of
Monmouthshire

June 2021



monmouthshire
sir fynwy

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1. Introduction

This appendix provides the baseline social, economic, cultural and environmental data for Monmouthshire and is used to help undertake the following aspects of the Integrated Sustainability Appraisal (ISA):

- Identify the current baseline social, economic, cultural and environmental situation within Monmouthshire against which the likely effect of the RLDP will be predicted;
- Identify key trends issues and opportunities for the ISA and RLDP to consider;
- Develop the ISA Framework to use for the appraisal of the RLDP; and
- Ultimately assist the development of a monitoring framework to monitor the significant effects of the RLDP.

The appendix has been structured around each of the seven well-being goals and within these goals, the baseline data has been sub-divided into a series of ISA topics. The baseline data is derived from specific facts and statistics that are gathered by different organisations including, for example, the Welsh Government, the UK Government, or statutory bodies such as Natural Resources Wales (NRW), amongst others. These data sources provide information for Monmouthshire as a whole and where available at town and community council level. Where data isn't available at the local level data at the national scale is used.

2. A Prosperous Wales

2.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.’

The data relates primarily to:

- The Economy, Employment and Income in Monmouthshire; and
- Education in Monmouthshire.

2.2 Employment & Economy

2.2.1 Employment Land & Vacancy Rates

A significant issue for Monmouthshire in the past has been the slow uptake of allocated employment land, which has led to pressure for it to be used for other purposes such as housing and retail. Tables 1 through 3 indicate the current situation across the various industrial and employment sites around the County. Currently, 19.5% of the total area of industrial and business sites identified in the adopted LDP remain available for development in 2021.

Table 1: SAE1 Identified Industrial and Business Sites

Site Ref.	Site Name	Area (Ha)	Remaining land at site (approx Ha)	Use Class
SAE1a	Wales One, Magor (West)	4.0	4.0	B1
SAE1b	Quay Point, Magor	19.6	Approx. 13.76	B1, B2, B8
SAE1c	Gwent Europark, Magor	13.3	13.3	B8
SAE1d	Westgate Business Park, Llanfoist	5.0	1.3	B1,B2
SAE1e	Ross Road, Abergavenny	1.5	1.5	B1,B2
SAE1f	Newhouse Farm, Chepstow	4.0	4.0	B2, B8
SAE1g	South Woodside, Usk	1.3	1.3	B1
SAE1h	Pill Row, Severn Bridge Industrial Estate, Caldicot	1.0	1.0	B1,B8
SAE1i	Beaufort Park Chepstow	0.42	0	B1

Source: Monmouthshire Employment Land Availability Study 2020-2021

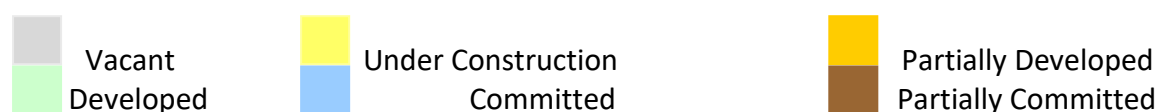


Table 2: SAE2 Protected Employment Sites

Site Ref.	Site Name	Area (Ha)	Remaining land at site (approx Ha)	Use Class
SAE2a	Mill, Street, Abergavenny	2.13	0	B1,B2, B8
SAE2b	Lower Monk Street, Abergavenny	1.21	0	B1, B2, B8
SAE2c	Union Road, Abergavenny	3.53	0	B1,B2, B8
SAE2d	Hatherleigh Place, Abergavenny	2.44	0	B1,B2, B8
SAE2e	Ross Road (Junction Yard), Abergavenny	1.03	0	B1,B2, B8
SAE2f	School Hill, Chepstow	0.30	0	B1,B2, B8
SAE2g	Station Road, Chepstow	2.29	0	B1,B2, B8
SAE2h	Job Centre, Chepstow	0.07	0	B1,B2, B8
SAE2i	Bulwark Road, Chepstow	5.46	0	B1,B2, B8
SAE2j	Beaufort Park, Chepstow	2.92	0	B1,B2, B8
SAE2k	Newhouse Farm, Chepstow	60.59	0	B1,B2, B8
SAE2l	Wonastow Road, Monmouth	13.10	0	B1,B2, B8
SAE2m	Mayhill/ Hadnock Road, Monmouth	7.39	0	B1,B2, B8
SAE2n	Tri-Wall, Wonastow Road, Monmouth	4.08	0	B1,B2, B8
SAE2o	Magor Brewery	21.53	0	B1,B2, B8
SAE2p	Severn Bridge, Caldicot	35.55	0	B1,B2, B8
SAE2q	Cheeseman's Industrial Estate, Rogiet	1.18	0	B1,B2, B8
SAE2r	Progress Industrial Estate, Rogiet	0.75	0	B1,B2, B8
SAE2s	Former Railway Goods Yard, Usk	0.86	0	B1,B2, B8
SAE2t	Cuckoo's Row, Raglan	1.72	0	B1,B2, B8
SAE2u	Raglan Enterprise Park	0.27	0	B1,B2, B8
SAE2v	Mamhilad	3.54	0	B1,B2, B8
SAE2w	Wales One, Magor	3.3	Approx. 0.57	B1,B2, B8
SAE2x	Woodside Industrial Estate, Usk	2.22	0	B1,B2, B8
SAE2y	Cranberry Foods, Abergavenny	4.43	0	B1,B2, B8

Source: Monmouthshire Employment Land Availability Study 2020-2021













	Vacant		Under Construction		Partially Developed
	Developed		Committed		Partially Committed

Table 3: SAH2-5 Identified Mixed Use Sites

Site Ref.	Site Name	Area (Ha)	Remaining land at site (approx Ha)	Use Class
SAH2	Crick Road, Portskewett	1.0	1.0	B1
SAH3	Fairfield Mabey, Chepstow	0.65 (reduced from 2.8 as allocated)	0.65	B1
SAH4	Wonastow Road,	6.5	2.78	B1

	Monmouth			
SAH5	Rockfield Farm, Undy	2.0	2.0	B1

Source: Monmouthshire Employment Land Availability Study 2020-2021

	Vacant		Under Construction		Partially Developed
	Developed		Committed		Partially Committed

2.2.2 Business Registrations

Table 4: Enterprise Births and Deaths in Monmouthshire

Year	Births	Deaths	+/-
2004	500	370	+130
2005	425	375	+50
2006	380	360	+20
2007	395	365	+30
2008	420	345	+75
2009	355	415	-60
2010	305	450	-145
2011	325	345	-20
2012	325	340	-15
2013	450	345	+105
2014	440	305	+135
2015	455	365	+95
2016	430	370	+30
2017	415	425	-10
2018	415	345	+70
2019	415	395	+20

Source: Office for National Statistics - (Accessed 15/04/2021)

Business births have exceeded business deaths in Monmouthshire in 4 of the past 5 years and the number of enterprise births remained consistent from 2017 through to 2019. Between 2014 and 2019, Monmouthshire saw an 9.4% increase in the number of active enterprises, this compares to an increase of 17.2% for the South East Wales Region and 12.3% for Wales as a whole. The South East Wales Region accounted for 46.9% of the active enterprises in Wales in 2019, with enterprises in Monmouthshire accounting for just over 8.7% of these.

2.2.3 Number of Enterprises in Monmouthshire by Size and industrial sector

Table 5: Number of enterprises by size and Industrial sector 2020 (%)

Industrial Sector	Micro (0 to 9 employees)	Small (10 to 49 employees)	Medium-sized (50 to 249 employees)	Large (250+ employees)	All Enterprises
Agriculture, forestry & fishing	680 (15.1%)	10 (0.22%)	0	0	690 (15.3%)
Mining, quarrying & utilities	20 (0.44%)	0	0	0	20 (0.44%)
Manufacturing	180 (4%)	25 (0.55%)	15 (0.33%)	5 (0.11%)	225 (5%)
Construction	445 (9.9%)	20 (0.44%)	5 (0.11%)	0	470 (10.4%)
Motor trades	125 (2.8%)	10 (0.22%)	0	0	135 (3%)
Wholesale	100 (2.21%)	20 (0.44%)	0	5 (0.11%)	125 (2.8%)
Retail	235 (5.2%)	25 (0.55%)	5 (0.11%)	0	265 (5.9%)
Transport & storage	130 (2.9%)	10 (0.22%)	5 (0.11%)	0	145 (3.2%)
Accommodation & food services	225 (5%)	65 (1.4%)	5 (0.11%)	0	295 (6.5%)
Information & communication	270 (6%)	10 (0.22%)	0	0	280 (6.2%)
Financial & insurance	60 (1.3%)	0	0	0	60 (1.3%)
Property	125 (2.8%)	5 (0.11%)	0	0	130 (2.9%)
Professional, scientific & technical	755 (16.7%)	30 (0.7%)	5 (0.11%)	0	790 (17.5%)
Business administration & support services	315 (7%)	15 (0.33%)	5 (0.11%)	0	335 (7.4%)
Public administration & defence	30 (0.7%)	0	0	0	30 (0.7%)
Education	45 (1%)	10 (0.22%)	0	5 (0.11%)	60 (1.3%)
Health	120 (2.7%)	45 (1%)	10 (0.22%)	0	175 (3.9%)
Arts, entertainment, recreation & other services	245 (5.4%)	20 (0.44%)	0	0	265 (5.86%)
Column Total	4,110 (91%)	335 (7.4%)	55 (1.2%)	15 (0.33%)	4,515

Source: Nomis - (Accessed 12/05/2021)

In 2020, 91% of enterprises in Monmouthshire employed less than 10 people. The highest percentage of enterprises is accounted for by professional, scientific & technical services, (17.5%). Agriculture, forestry and fishing accounted for 15.3% and construction 10.4%.

2.2.4 Working Age Population

Monmouthshire has a lower percentage of its population at working age (16-64) than Wales as a whole, 58.6% compared to the Wales figure of 61.1%. At the time of the 2011 Census 59.2% of Monmouthshire's population was of working age compared to the Welsh figure of 59.7%, indicating that Monmouthshire's working age population has decreased whilst the working age population in Wales has increased.

Table 6: Working age population (2019)

	Monmouthshire (numbers)	Monmouthshire (%)	Wales (%)
All people – working age	55,394	58.6	61.10
Males – working age	27,512	29.10	30.5
Females – working age	27,882	29.40	30.6

Source: ONS Mid-year population estimates 2019 - (Accessed 15/04/2021)

2.2.5 Economic Activity

Table 7: Economically active (January 2020– December 2020)

	Economically active (1)	In employment (1)	Employees (1)	Self employed (1)	Model- based unemployed (2)
Monmouthshire	83.4	80.0	67.1	12.3	2.6
Newport	79.7	77.0	69.9	6.9	3.4
Torfaen	74.9	72.1	64.2	7.3	3.6
Blaenau Gwent	74.0	70.8	63.7	6.7	4.3
Powys	79.9	75.9	55.7	18.3	4.6
Wales	75.7	72.8	63.0	9.3	3.7

Source: ONS annual population survey

(1) numbers are for those aged 16 and over, % are for those of working age (16-64)

(2) numbers and % are for those aged 16 and over. % is a proportion of economically active - (Accessed 29/04/2021)

Table 8: Economically Inactive (January 2020- December 2020)

	Economically Inactive	Wanting a job	Not wanting a job
Monmouthshire	16.6	21.9	78.1
Newport	20.3	27.5	72.5
Torfaen	25.1	14.6	85.4
Blaenau Gwent	26.0	17.9	82.1
Powys	20.1	27.8	72.2
Wales	24.3	21.6	78.4

Source: ONS annual population survey

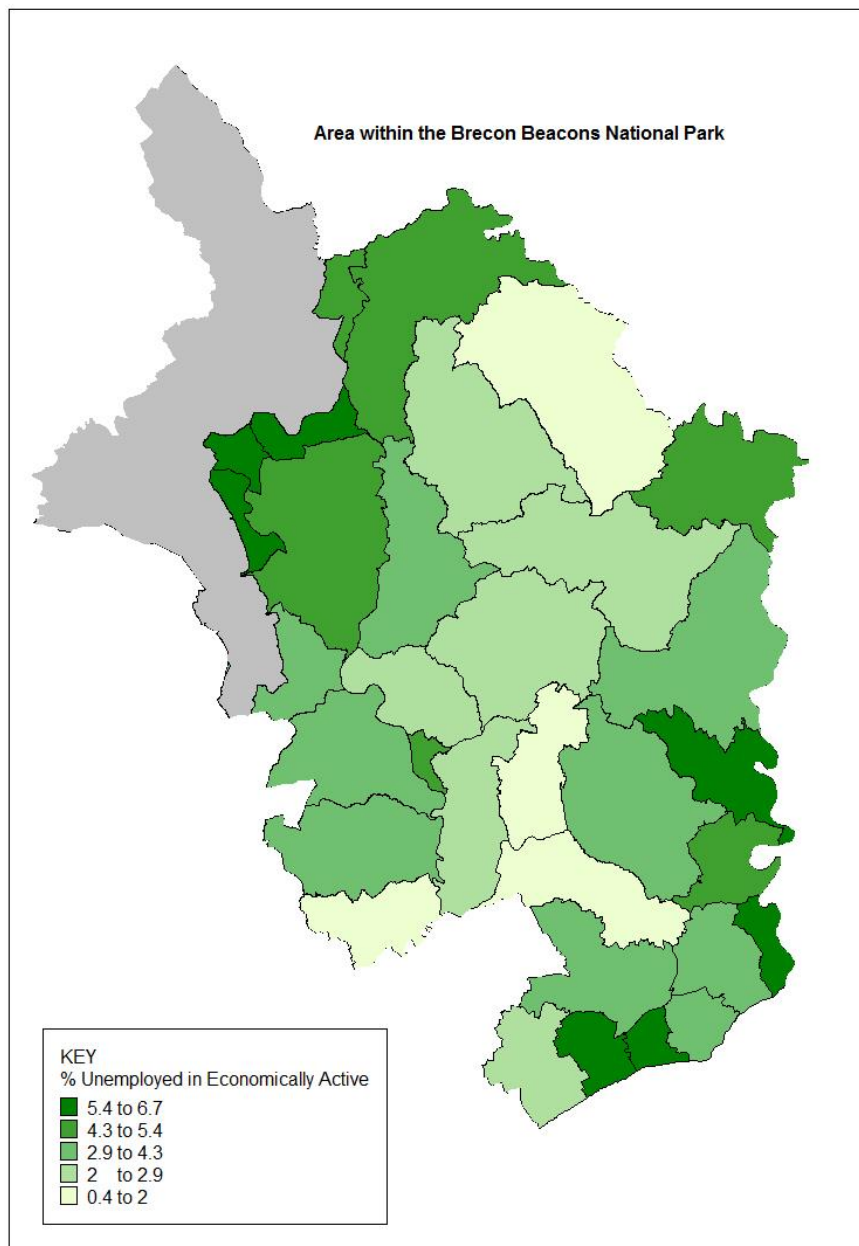
(1) numbers are for those aged 16 and over, % are for those of working age (16-64)

(2) numbers and % are for those aged 16 and over. % is a proportion of economically active - (Accessed 29/04/2021)

Monmouthshire has a higher percentage of the working age population economically active than in all the surrounding authorities and in Wales as a whole. The County also has, with the exception of Powys, a higher percentage of the economically active who are self-employed. There are also higher levels of those who are in employment who work at home, 15% at the time of the 2011 Census, compared to a Welsh average of 11.9%.

Despite these higher levels of economic activity there are pockets of higher unemployment within the County. At the time of the 2001 Census 4.4% of the working age population were unemployed this compares to 5.1% in 2011 and 4.1% in 2020. The highest levels of unemployment amongst the economically active in 2011 were recorded in the towns of Abergavenny, Caldicot, Chepstow and in the Community Council areas of Llanfoist and Llantilio Pertholey who all recorded levels of unemployment in the economically active of above 6% (Map 1).

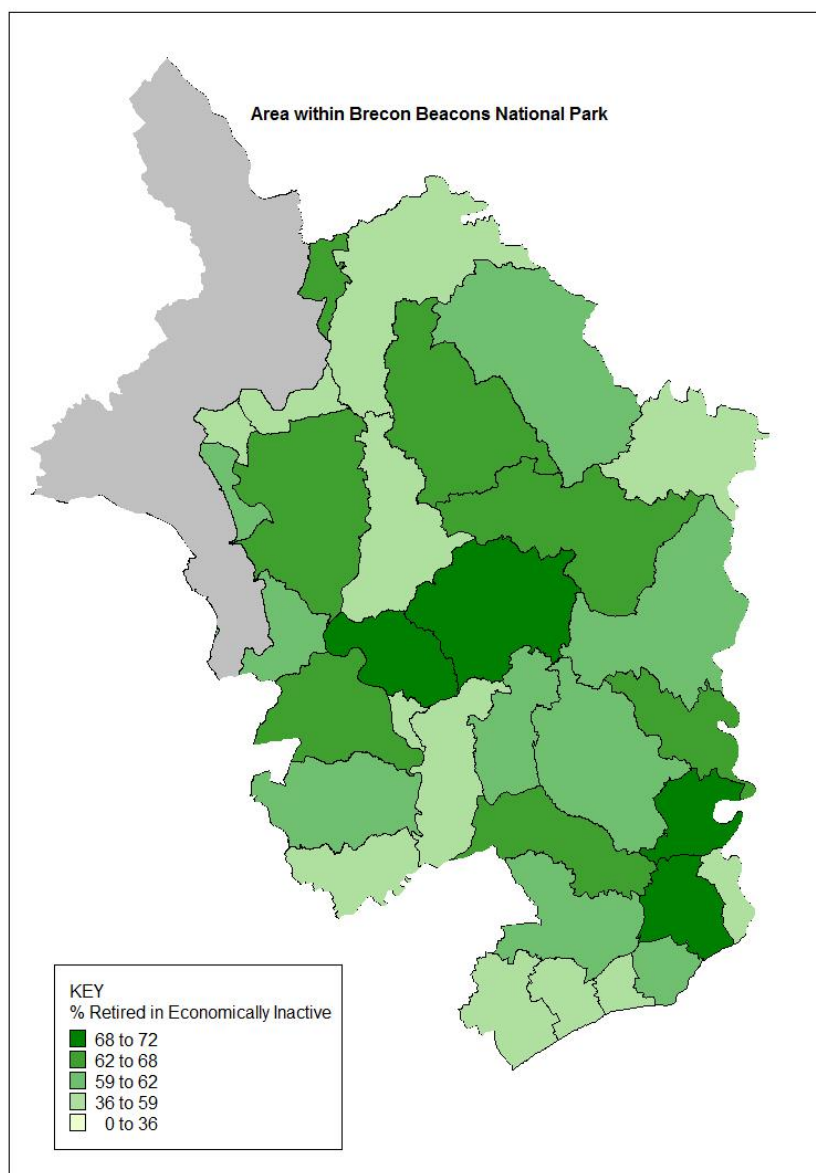
Map 1: % of Economically Active Population Unemployed by Town and Community Council Area (2011)



Source: ONS Census 2011

The economically inactive are made up of a number of different groups, including the retired, students, permanently sick/disabled and those looking after the home and family. At the time of the 2011 Census Monmouthshire had a higher percentage of retired in this group than any other group, and also had a higher proportion than Blaenau Gwent, Merthyr Tydfil and Torfaen. Map 2 shows the distribution, by Community Council area, of the economically inactive who were retired at the time of the 2011 Census. Of those areas Mathern, Raglan and Gwehelog Fawr record the highest levels with at least 70% of their inactive population retired.

Map 2: % of Economically Inactive Population who are Retired (2011)



Source: ONS Census 2011

In November 2018 the largest proportion of benefit claimants in Monmouthshire (excluding those claiming a state pension) were those claiming Employment and Support Allowance; however, this was considerably less than in surrounding

authorities. ONS Claimant count data, suggests that in April 2021 in Monmouthshire 3.9% of those aged 16-64 were claiming benefits. This compares to 5.7% in Wales as a whole (ONS Claimant Count; Nomis 20/05/2021).

Table 9: Key benefit claimants (Number) (November 2018)

	Monmouthshire	Torfaen	Blaenau Gwent	Newport	Powys	Wales
Employment and Support Allowance	2,900	4,420	4,930	6,600	4,660	147,750
Incapacity Benefit and Severe Disablement	90	110	110	140	140	3,580
Income Support	440	760	930	1,460	710	29,300
Job Seekers Allowance	260	120	460	620	350	15,230
Carers Allowance	950	1,790	1,590	2,770	1,500	53,640
Disability Living Allowance	2,200	3,810	3,480	4,630	3,560	117,660
Pension Credits	2,160	3,040	2,830	4,570	4,020	100,060
State Pension	22,760	18,820	13,590	26,520	35,060	640,820

Source: Nomis (Accessed 20/05/2021)

2.2.6 WIMD Employment Domain

The purpose of the WIMD 2019 Employment domain is to capture lack of employment and is based upon 1 indicator, namely, employment related benefits. The ranks reflect a count of individuals who claim Employment and Support Allowance (ESA), Job Seekers Allowance (JSA), Incapacity Benefit and Universal credit claimants not in employment. Those who claim a combination of benefits are only counted once. More information on benefit claimants in Monmouthshire can be found in Table 9 above.

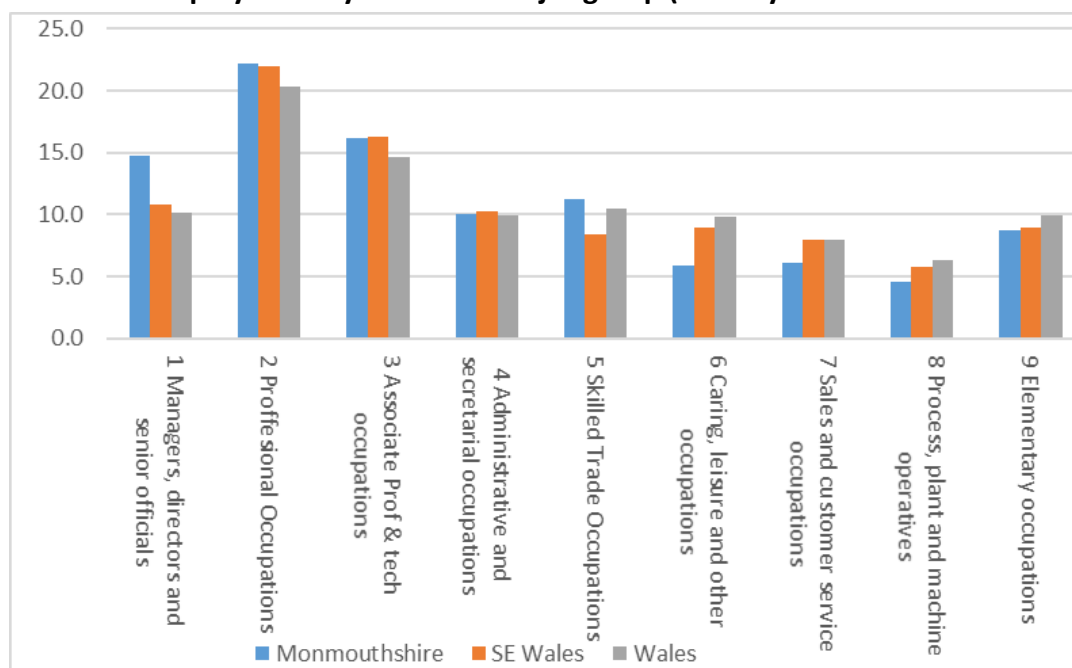
Table 10: WIMD 2019 – Monmouthshire Employment Domain Summary (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	0	1	5	13

Source: WIMD 2019

According to the Welsh Index of Multiple Deprivation (WIMD) 2019 employment domain (Table 10), Monmouthshire had no LSOAs in the most deprived 10%. Of the 56 output areas within Monmouthshire 13 are within the 50% most deprived, of these, 5 are within the 30% most deprived and 1 within the 20% most deprived. The LSOAs with the lowest ranks were Overmonnow 2 (357) in Monmouth, Llanover 1 (406) and Cantref 2 (439), Lansdown (464) and Croesonen (519) in Abergavenny all of which fall in the 30% most deprived.

2.2.7 Employment by Standard Occupation Classification

Chart 1: % Employment by SOC 2010 major group (January 2020-December 2020)

% is a proportion of all persons in employment

Source: ONS annual population survey (Accessed 29/04/2021)

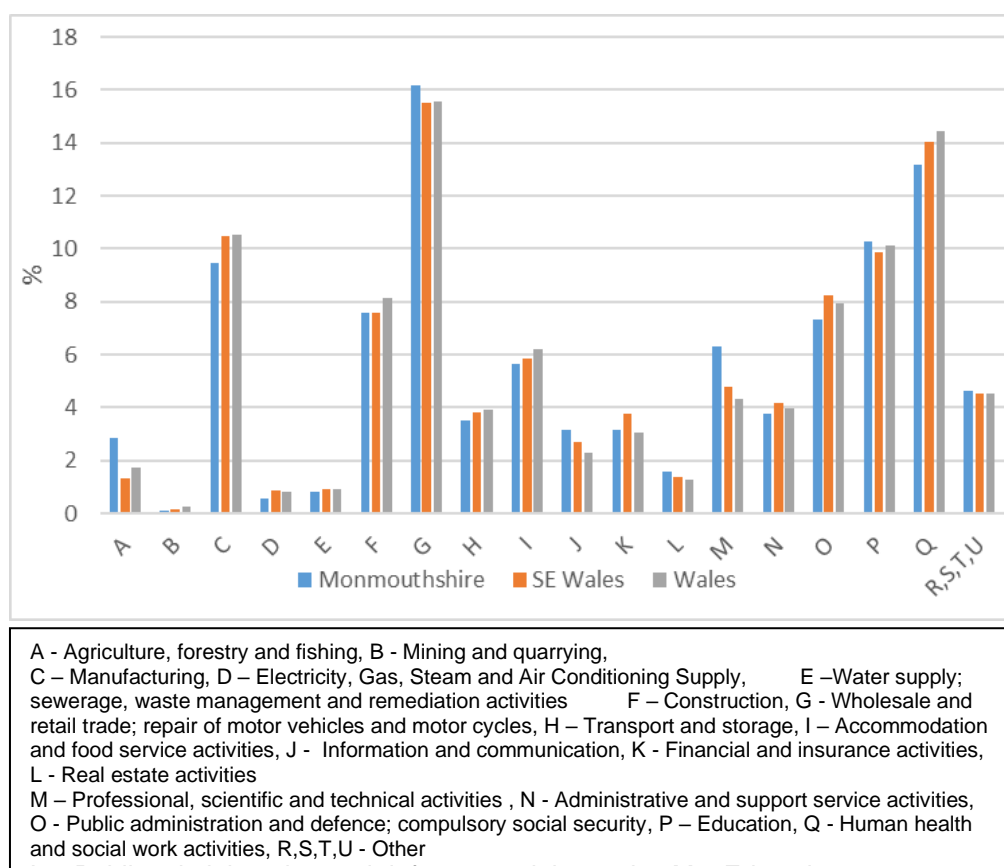
Monmouthshire has a higher percentage of its working population in the standard occupation classifications 1 and 2, i.e. managers (14.8%) and professional occupations (22.2%) than the South East Wales area; 10.2% and 22.0% or Wales as a whole; 10.2% and 20.3%. The smallest proportion in Monmouthshire is accounted for by the process, plant and machine operative occupations. This is also the case in both the SE Wales region and Wales as a whole. Chart 1 illustrates the relatively high number of

those who are managers, directors and senior officials in Monmouthshire in comparison to SE Wales and Wales as a whole, with a difference of 4% and 4.6% respectively.

2.2.8 Employment by Sector

The largest employment sector in Monmouthshire in 2011 was the wholesale and rental trade (G) accounting for 16.2% of all employment, this is followed by human health and social work activities with 13.2%. As a rural authority it is not surprising that Monmouthshire had more people employed in farming and forestry (2.8%) than either South East Wales (1.3%) or Wales as a whole (1.7%). However, this has declined, at the time of the 1991 Census 5.7% of Monmouthshire's working population were employed in this sector, which was 4%, by 2001, and 2.8% at the time of the 2011 Census.

Chart 2: Employment by Sector 2011



Source: ONS Census 2011

2.2.9 Employee Jobs in Monmouthshire

In comparison to Wales, Monmouthshire has a marginally higher proportion of employee jobs accounted for by part-time employment. The largest proportion of jobs in Monmouthshire are accounted for by the wholesale and retail trade and human health and social work both with 16.7%, compared to 15.4% and 15.8% respectively in

Wales as a whole. Human health and social work with 15.8%, is the largest sector for Wales as a whole.

Table 11: Employee Jobs (2019)

	Monmouthshire (employee jobs)	Monmouthshire %	Wales %
Total employee jobs	36,000		
Full-time	23,000	63.9	65.0
Part-time	13,000	36.1	35.0
Employee jobs by industry			
B. Mining and Quarrying	10	0.0	0.2
C. Manufacturing	3,500	9.7	11.3
D. Electricity, Gas, Steam and Air Conditioning Supply	10	0.0	0.6
E. Water Supply; Sewerage, Waste Management and Remediation Activities	300	0.8	1.0
F. Construction	2,500	6.9	4.7
G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	6,000	16.7	15.4
H. Transportation and Storage	1,500	4.2	3.4
I. Accommodation and Food Service Activities	3,500	9.7	9.4
J. Information and Communication	800	2.2	2.2
K. Financial and Insurance Activities	350	1.0	2.5
L. Real Estate Activities	600	1.7	1.3
M. Professional, Scientific and Technical Activities	2,250	6.2	5.1
N. Administrative and Support Service Activities	1,750	4.9	6.6
O. Public Administration and Defence; Compulsory Social Security	2,000	5.6	7.6
P. Education	2,500	6.9	9.1
Q. Human Health and Social Work	6,000	16.7	15.8
R. Arts, Entertainment and Recreation	1,000	2.8	2.2
S. Other Service Activities	500	1.4	1.5

Source: ONS Business Register and Employment Survey – (Accessed 16/04/2021)

2.2.10 WIMD Income Domain

The WIMD 2019 Income domain is based upon a single indicator, income deprivation, comprising 3 elements; those receiving Tax Credits, Income Related Benefits and Supported Asylum Seekers. The domain attempts to highlight the proportion of people below a defined level. More information on income and earnings can be found in Tables 13 and 14.

Table 12: WIMD Income Domain 2019 (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	0	2	3	15

Source: WIMD 2019

According to the Welsh Index of Multiple Deprivation (WIMD) 2019 income domain (Table 12), Monmouthshire had no LSOAs in the most deprived 10%. Of the 56 output areas within Monmouthshire 15 are within the 50% most deprived, of these 2 are within the 20% most deprived. The LSOAs with the lowest ranks were Cantref 2 in Abergavenny (238) and Thornwell 1 in Chepstow (349), both within the 20% most deprived.

2.2.11 Average Earnings

The average (mean) annual wage for a full-time worker living in Monmouthshire in 2020 was £41,219, compared to £36,531 in 2011, this compares to £32,241 in Wales for 2020. The median wage at £34,589 is 84% of the mean, compared to nearly 87.7% for Wales, this appears to indicate a degree of income inequality in Monmouthshire (there are a small number of high earners with the majority of workers earning less than average). There is also a large degree of inequality between the annual wage for a full time worker working in Monmouthshire and a full time worker living in Monmouthshire, with those living in the County earning on average nearly 21% more than those who work in the County, this compares to 2.4% for Wales as a whole.

Average earnings in Monmouthshire for full time employment decreased by 0.8% between 2019 and 2020 against a Welsh increase of 1.6%. Average earnings for part time employment in Monmouthshire decreased as well at a faster rate of 7.4% compared to an increase of 8.3% for Wales as a whole.

From Tables 13 and 14 it can be seen that the average annual earnings of those living in Monmouthshire continue to exceed those of surrounding local authorities.

Table 13: Average annual earnings for full time employment 2020 (by place of residence)

	No of Jobs (Thousand)	Median income £	Annual % change	Mean income £	Annual % change
Wales	748	28,273	1.5	32,241	1.6
Monmouthshire	23	34,589	-0.8	41,219	-0.8
Newport	39	29,611	2.8	32,097	1.2
Torfaen	24	29,006	4.3	32,619	5.4
Powys	23	28,666	6.4	30,853	5.4
Blaenau Gwent	18	25,936	10.1	28,096	6.5
S Gloucs.	75	31,875	0.8	37,002	5.8
Gloucs.	147	31,623	5.0	36,432	-3.2
Herefordshire	40	28,468	8.5	32,839	2.5

Source: 2020 Annual Survey of Hours and Earnings (ASHE) Nomis (Accessed 29/04/2021)

Table 14: Average annual earnings for part time employment 2020 (by place of residence)

	No of Jobs (Thousand)	Median income £	Annual % change	Mean income £	Annual % change
Wales	302	11,455	7.0	13,322	8.3
Monmouthshire	8	No Data	No Data	14,035	-7.4
Newport	14	10,453	-3.5	13,385	11.8
Torfaen	8	No Data	No Data	13,607	-2.1
Powys	14	11,040	2.6	12,902	1.9
Blaenau Gwent	No Data	No Data	No Data	12,115	6.6
S Gloucs.	31	11,357	5.7	13,715	11.9
Gloucs.	63	10,909	1.6	13,997	5.2
Herefordshire	20	10,344	0.1	11,850	-6.8

Source: 2020 Annual Survey of Hours and Earnings (ASHE) Nomis (Accessed 29/04/2021)

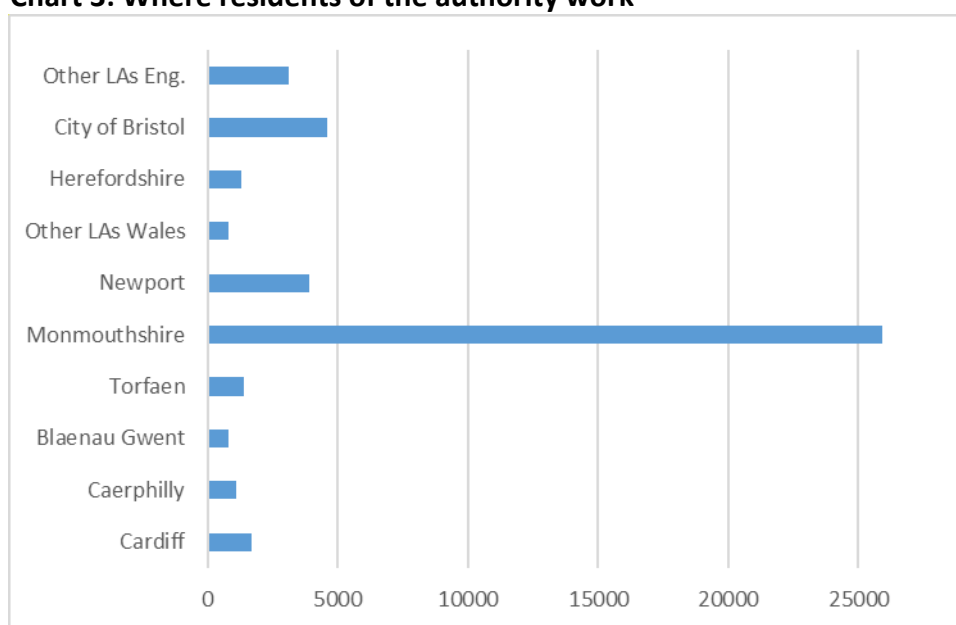
2.2.12 Commuting

Table 15: Summary Commuting Statistics 2020

Local Authority	Out-Commuters (No.)	In-Commuters (No.)	Live and Work in Area (No.)	Percentage who Live and Work in area as a Percentage of the Total Employed, percent
Blaenau Gwent	15,900	4,700	14,900	48.4
Monmouthshire	19,700	19,000	25,900	56.9
Newport	27,800	36,900	45,300	62.0
Torfaen	18,500	11,700	22,400	54.8

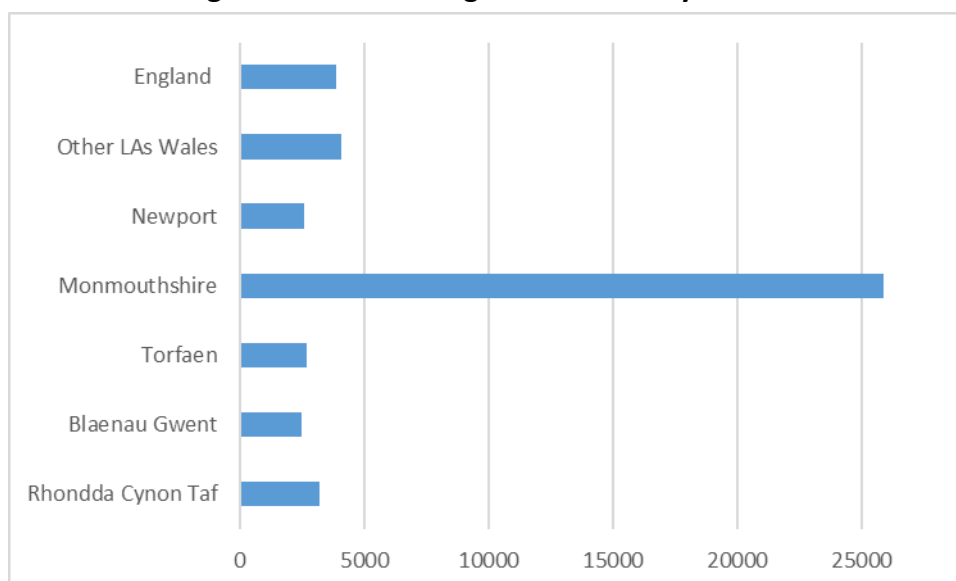
Source: Source: StatsWales and Monmouthshire Employment Land Review– (Accessed 20/05/2021)

Chart 3: Where residents of the authority work



Source: StatsWales

Chart 4: Origin of those working in the authority



Source: StatsWales

Hometrack have produced travel to work areas (TTWAs) based on the 2011 Census. The 243 current TTWAs were defined in 2007 using 2001 Census information on home and work addresses. From this data it can be seen that there has been a reduction in the number of TTWAs in the UK as a whole as the trend in more and longer distance commuting increases: in 1991 there were 314 TTWAs and in 1981, 334, there are now 228 (2011 TTWAs). The extract in Map 3 shows the TTWAs for the South East Wales region and Monmouthshire, from this the extent of the cross border and inter-authority commuting is shown.

Map 3: Travel to Work Areas



Source: Hometrack (24/09/2018)

2.2.13 Digital Connectivity

Digital connectivity has become increasingly important over the Adopted LDP period. Ofcom suggest that there are differences in digital connectivity throughout the UK. In Quarter 1 of 2021, the mean download speed (Mbit/s) was 45 in Wales compared to 59.4 in England. Equally, Wales has a higher proportion of coverage below 15mbps with 3.26% compared to England (1.43%).

Table 16: Digital Connectivity Quarter 1 of 2021

Area	Superfast UK (>24 Mbps) (1)	Superfast EU (>30 Mbps) (1)	Ultrafast (>100 Mbps) (1)	Mean Upload Speed (Mbps)	Mean Download Speed (Mbps)
Monmouthshire	88.6%	87.73%	23.77%	8.6	38.3
Torfaen	98.13%	98.01%	47.37%	10.2	53.6
Newport	97.71%	97.58%	75.54%	13.9	76
Powys	84.18%	83.41%	20.79%	7.9	31.4
Blaenau Gwent	98.85%	98.25%	3.51%	7.9	31.5
Wales	95.66%	95.25%	43.92%	9.8	45
England	97.59%	97.29%	67.86%	13.7	59.4

Source: ThinkBroadband (Accessed 12/05/2021)

(1) Coverage percentages include both residential and business premises and is based around postcode level data.

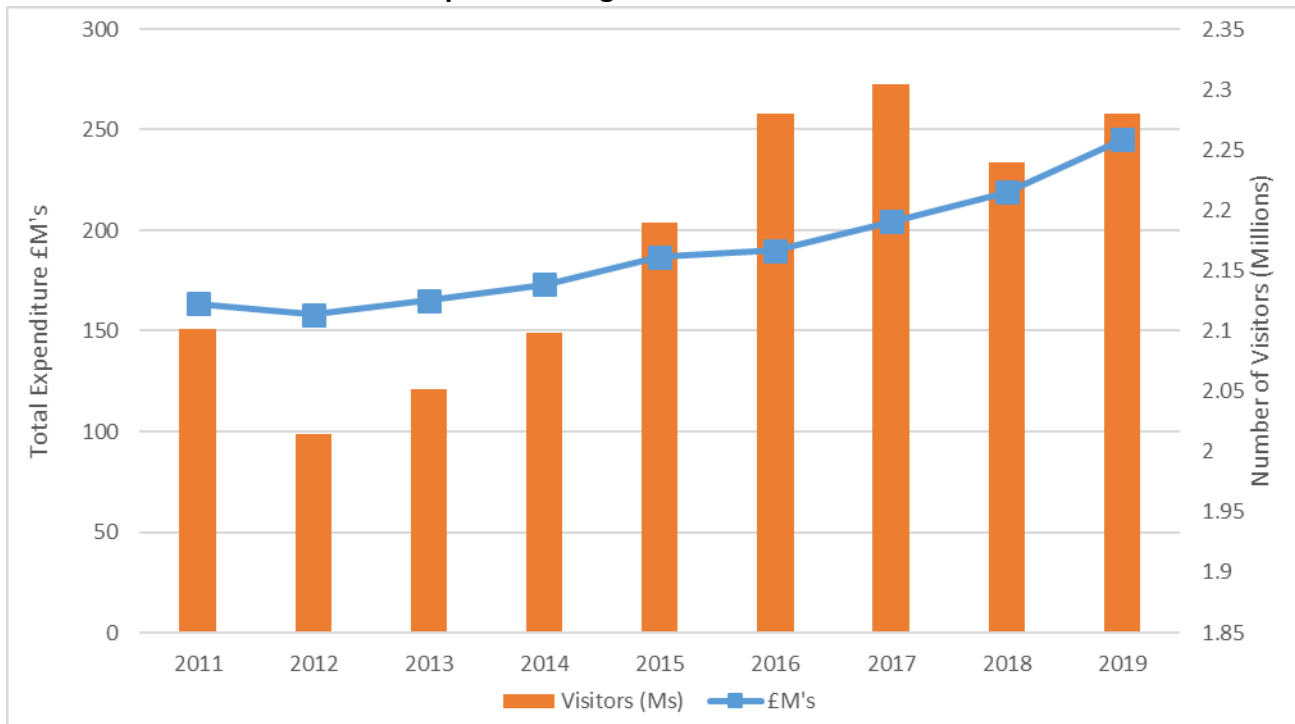
Table 16 indicates that Monmouthshire, with the exception of Powys, has the lowest proportion of properties with Superfast UK broadband, and has the lowest proportion, again with the exception of Powys, of properties with Superfast EU broadband. Both download and upload speeds in Monmouthshire are more in keeping with those for the surrounding authorities and both England and Wales, however, the County has the third lowest upload and download speeds. This reflects the largely rural nature of the County.

2.3 Tourism

2.3.1 Tourism Expenditure

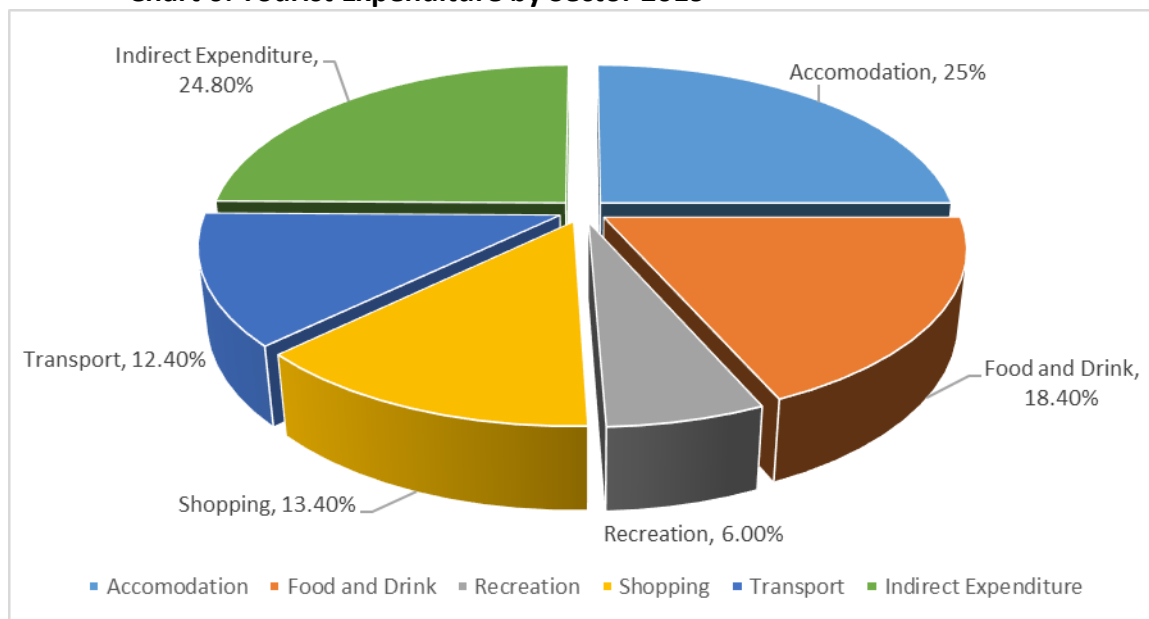
Tourism is an important sector of the economy for Monmouthshire. In 2019, there were 2.28m visitors to the County generating £244.99 million for the local economy in an industry which supports 3,119 jobs (STEAM Report 2019). From the yearly STEAM Report, it can be seen that tourist expenditure has shown an upward trend over the past 8 years. (Chart 5). However, visitor numbers reached a peak in 2017 before falling in 2018 and rising again in 2019 to levels similar to 2016. The majority of direct tourist expenditure in Monmouthshire in 2019 was accounted for by accommodation followed by food and drink, then shopping followed by transport. (Chart 6).

Chart 5: Total Tourist Expenditure against Tourist Numbers



Source: Monmouthshire County Council STEAM Report

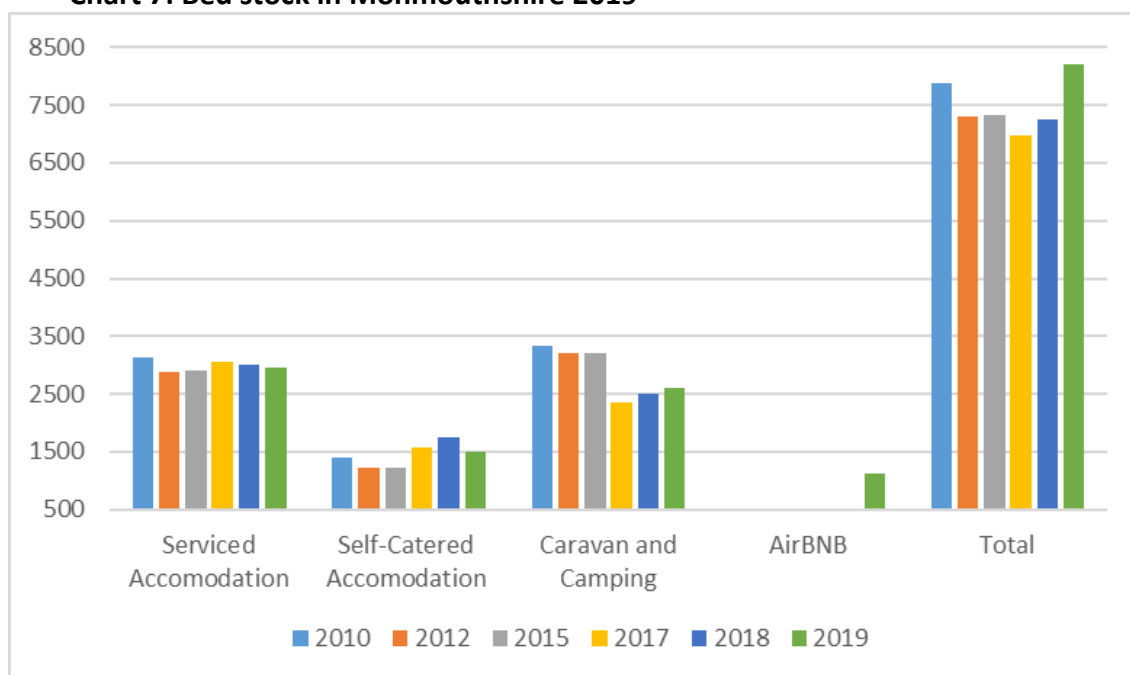
Chart 6: Tourist Expenditure by Sector 2019



Source: Monmouthshire County Council STEAM Report

2.3.2 Tourist Accommodation

Chart 7: Bed stock in Monmouthshire 2019



Source: Monmouthshire County Council STEAM Report

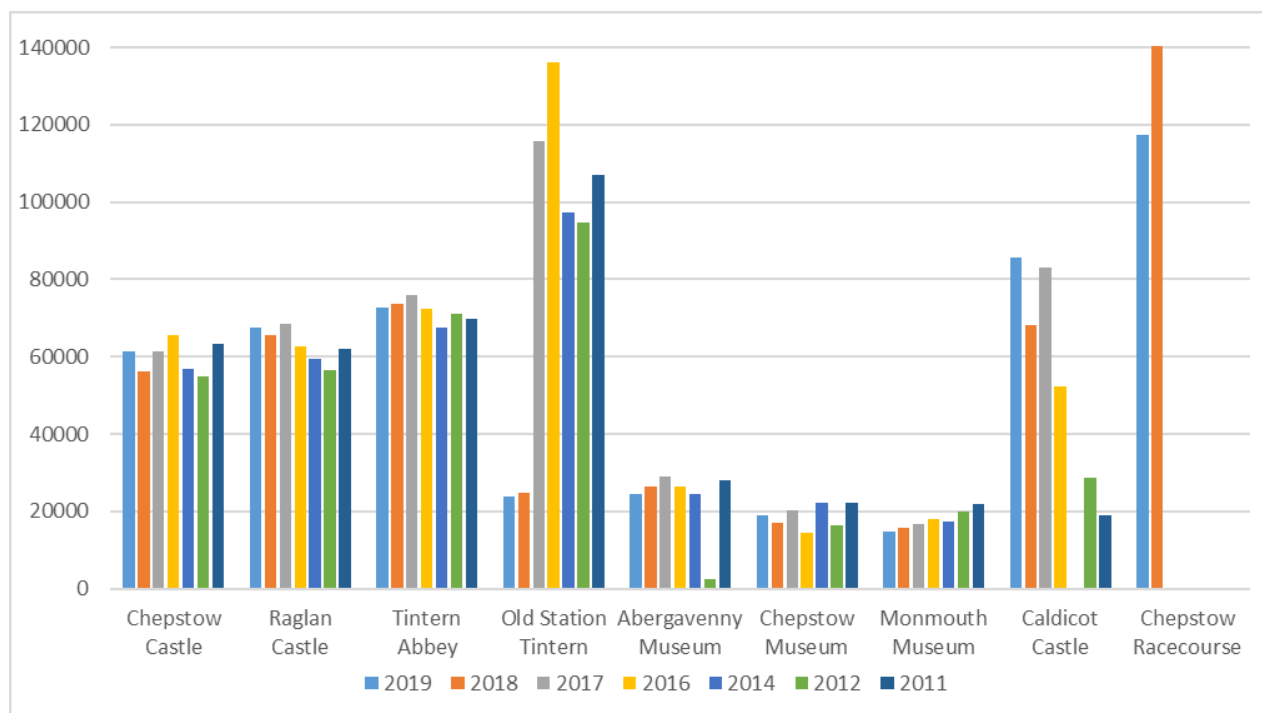
In total, the bedstock for Monmouthshire is 8,208 bedspaces. Over one third (36%) of these are serviced bedspaces, 18% are self-catered with 32% being caravan and camping bedspaces. In 2019, AirBNB bedspaces were also recorded which accounted for nearly 14% of bedspaces.. The total number of bedspaces has increased since a decline in 2017. Caravan and camping bedspaces have increased since 2017, whilst serviced accommodation bedspaces have fallen marginally in 2019.

2.3.3 Tourist Information Centres (TIC)

Monmouthshire has two Tourist Information Centres (TICs), one in the main market town of Abergavenny, and one in Chepstow. There are also additional 'Tourist Information Outlets' in Tintern and Usk, which open on a seasonal basis. Unlike in 2010, where the TIC situated in Abergavenny received the most visitors overall, the 2019 Monmouthshire County Council STEAM report suggests that the Abergavenny TIC received 12,966 visitors whereas the Chepstow TIC received 32,909 visitors, making it the more popular TIC.

2.3.4 Visitor Attractions

Chart 8: Visitor Figures



Source: Monmouthshire County Council STEAM Report

The most popular attraction in Monmouthshire with over 117,000 visitors in 2019 was Chepstow Racecourse, followed by Caldicot Castle with over 85,500 and then Tintern Abbey with over 72,500 visitors.

2.4 Retail

2.4.1 Retail Hierarchy

The Retail Hierarchy for Monmouthshire is defined by the Local Development Plan as follows:

COUNTY TOWNS:

Abergavenny
Caldicot
Chepstow
Monmouth

LOCAL CENTRES:

Magor
Raglan
Usk

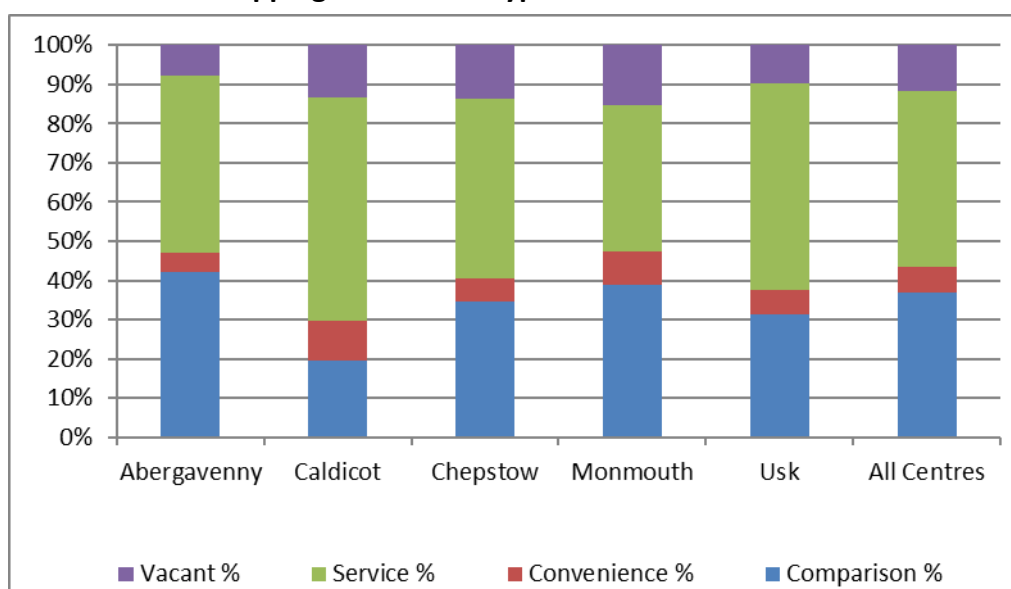
NEIGHBOURHOOD CENTRES:

Hillcrest Road, Abergavenny
Rother Avenue, Abergavenny
The Mardy, Abergavenny
West End, Caldicot
Bulwark, Chepstow
Thornwell, Chepstow
The Albion, Monmouth
Overmonnow, Monmouth
Wyesham, Monmouth

2.4.2 Retail uses in town centres

The 2020 Monmouthshire County Council Annual Retail Background Paper recorded a range of uses within the County's CSAs and reflects a wider trend of a decline in the proportion of convenience outlets and an increase in the proportion of service outlets.

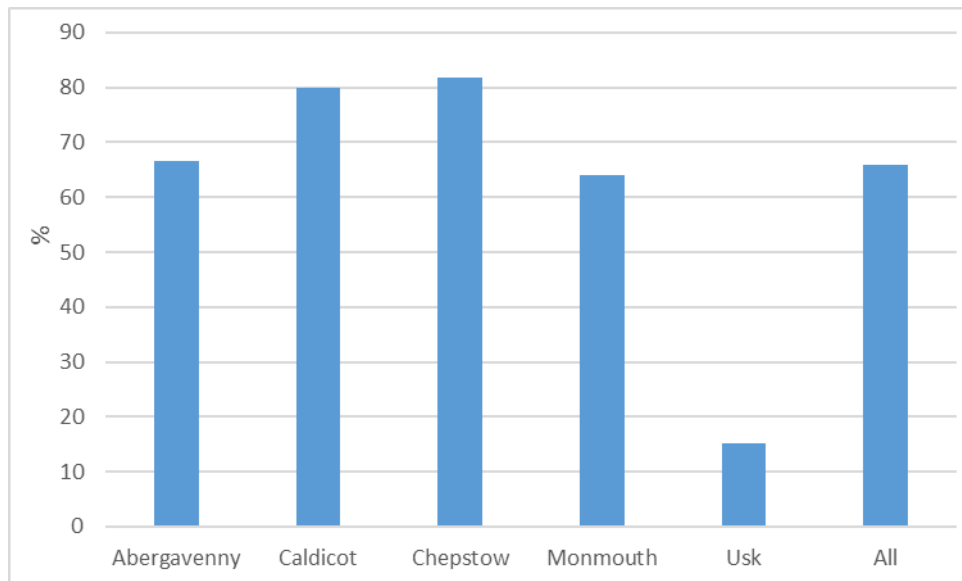
Chart 9: Central Shopping Area Retail Types 2020



Source: Monmouthshire County Council Annual Retail Background Paper 2020

A Retail and Leisure Study was undertaken in 2015 and as part of this a Household Survey was conducted. Of the County towns Chepstow recorded the highest level, 81.7%, of those asked stating that they undertake their main food shop in the County, this figure falls to 80% for Caldicot, 66.7% for Abergavenny and 64% for Monmouth. Chepstow has the highest level of self-containment with 71% of respondents doing their main food shop in the town, this falls to 65% for Abergavenny and 61% for Monmouth.

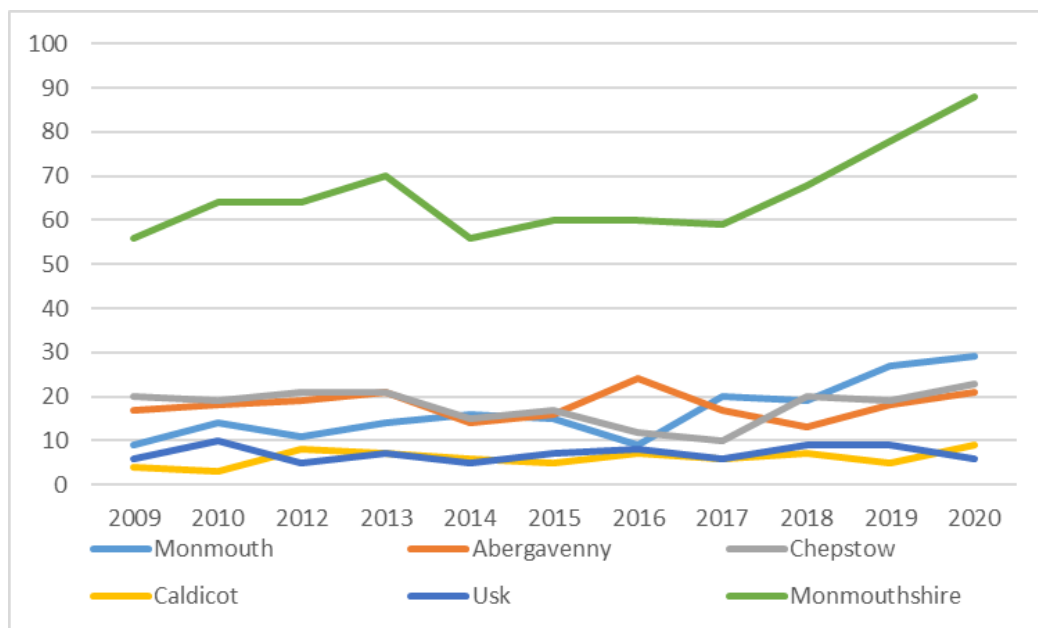
Chart 10: % Respondents doing main food shop in the County (2015)



Source: Monmouthshire Retail Study 2015

2.4.3 Vacancies

Chart 11: Number of vacant units in the Central Shopping Areas



Source: Monmouthshire County Council Retail Background Paper 2020

The number of vacant units in the Central Shopping Areas of the County's retail centres has been relatively stable overall since 2009, however, since 2017 Chepstow and Monmouth have seen increases in the number of vacant units. Since 2017, Abergavenny has seen a net gain of 4 vacant units, Chepstow 13 vacant units and Monmouth 9 vacant units. In 2020, all centres saw an increase in the number of vacant units apart from Usk, which saw a decrease in the number of vacant units by 3. When

looking at the percentage of total units, Usk has experienced consistently high vacancy rates when compared to the other centres (Table 17).

Table 17: Retail centre vacancy rates (% units)

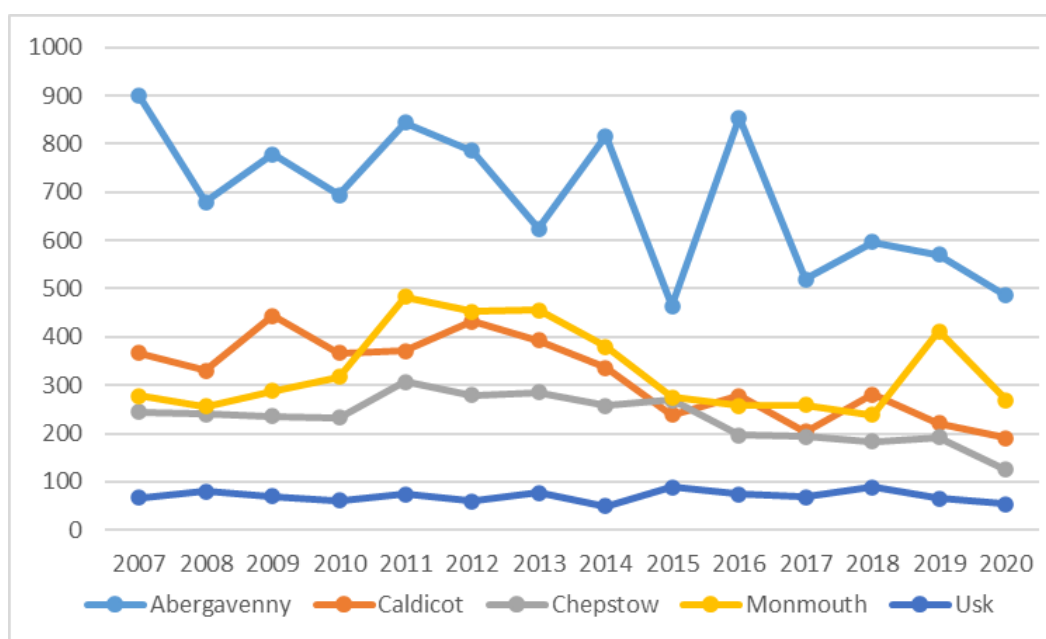
	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020
Abergavenny	6.6	6.9	7.3	7.7	5.1	5.8	8.7	6.3	4.7	6.6	7.6
Caldicot	6	4.5	11.9	10.1	9.2	7.6	10.4	9.1	10.6	7.5	13.4
Chepstow	11.9	11.3	12.4	12	8.8	10	7.1	5.9	11.8	11.2	13.5
Monmouth	5.1	8	6.2	7.4	8.3	8.1	4.9	10.7	10.1	14.4	15.4
Usk	10	16.9	8.5	10.9	7.8	11.1	13.1	10.5	15.8	15.3	9.8
All	7.7	8.8	8.7	9.1	7.3	7.9	7.9	7.9	9	10.3	11.6

Source: Monmouthshire County Council Retail Background Paper 2020

2.4.4 Footfall

As part of an annual retail survey carried out by the Council the average footfall in each of the retail centres is recorded. From the chart below it can be seen that whilst average footfall in Usk has remained relatively steady over the past 10 years, other centres have seen a lot more fluctuation and decline in recent years.

Chart 12: Average footfall by retail centre



Source: Monmouthshire County Council Retail Background Paper 2020

2.5 Education

2.5.1 Education Infrastructure

There are a total of 30 primary schools in Monmouthshire, spread throughout the County. There are 7 in and surrounding Abergavenny, 8 in Severnside, serving Caldicot, Magor, Undy, Portskewett and beyond, 4 in Chepstow and 3 in Monmouth.

The remaining 8 primary schools are located in settlements such as Raglan, Usk, Trellech, Llandogo and Cross Ash. There are 4 secondary schools in the county, in Chepstow, Caldicot, Abergavenny and Monmouth.

Monmouthshire has only one higher educational establishment within its boundary, Coleg Gwent at Usk, which runs courses in farming, horticulture, equestrianism, rural activities and animal care.

2.5.2 WIMD Education Domain

The WIMD 2019 Education domain comprises six indicators all with different weightings. The indicators include; Key Stage 2 average point score (11.7%), repeat absenteeism (21.7%), number of adults aged 25-64 with no qualifications (16%), proportion of Key Stage 4 leavers entering higher education (13.2%), Key Stage 4 average point score for core subjects (27.6%) and Foundation phase average point score (9.9%). The domain attempts to highlight deprivation in relation to education, aptitudes and training and to reflect educational disadvantage within an area. More information on qualifications and level of skill and attainment within Monmouthshire can be found below.

Table 18: WIMD Education Domain (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	0	1	4	12

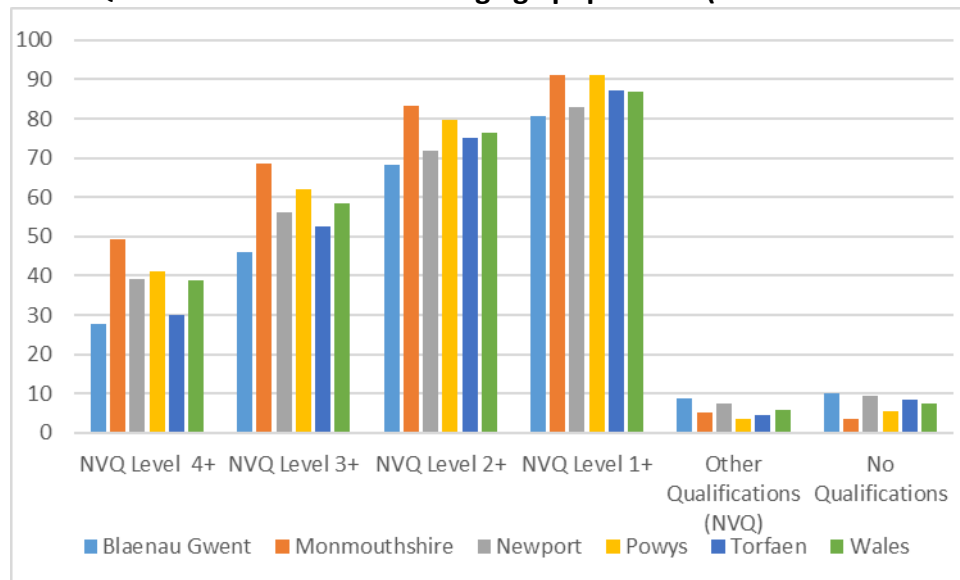
Source: WIMD 2019

According to the Welsh Index of Multiple Deprivation (WIMD) 2019 education domain (Table 18), Monmouthshire had no LSOAs in the most deprived 10%. Of the 56 output areas within Monmouthshire 13 are within the 50% most deprived, of these, 1 was within the 20% most deprived. The LSOAs with the lowest ranks were Overmonnow 2 in Monmouth (360), Thornwell 1 in Chepstow (413) and West End in Caldicot (419).

2.5.3 Qualifications

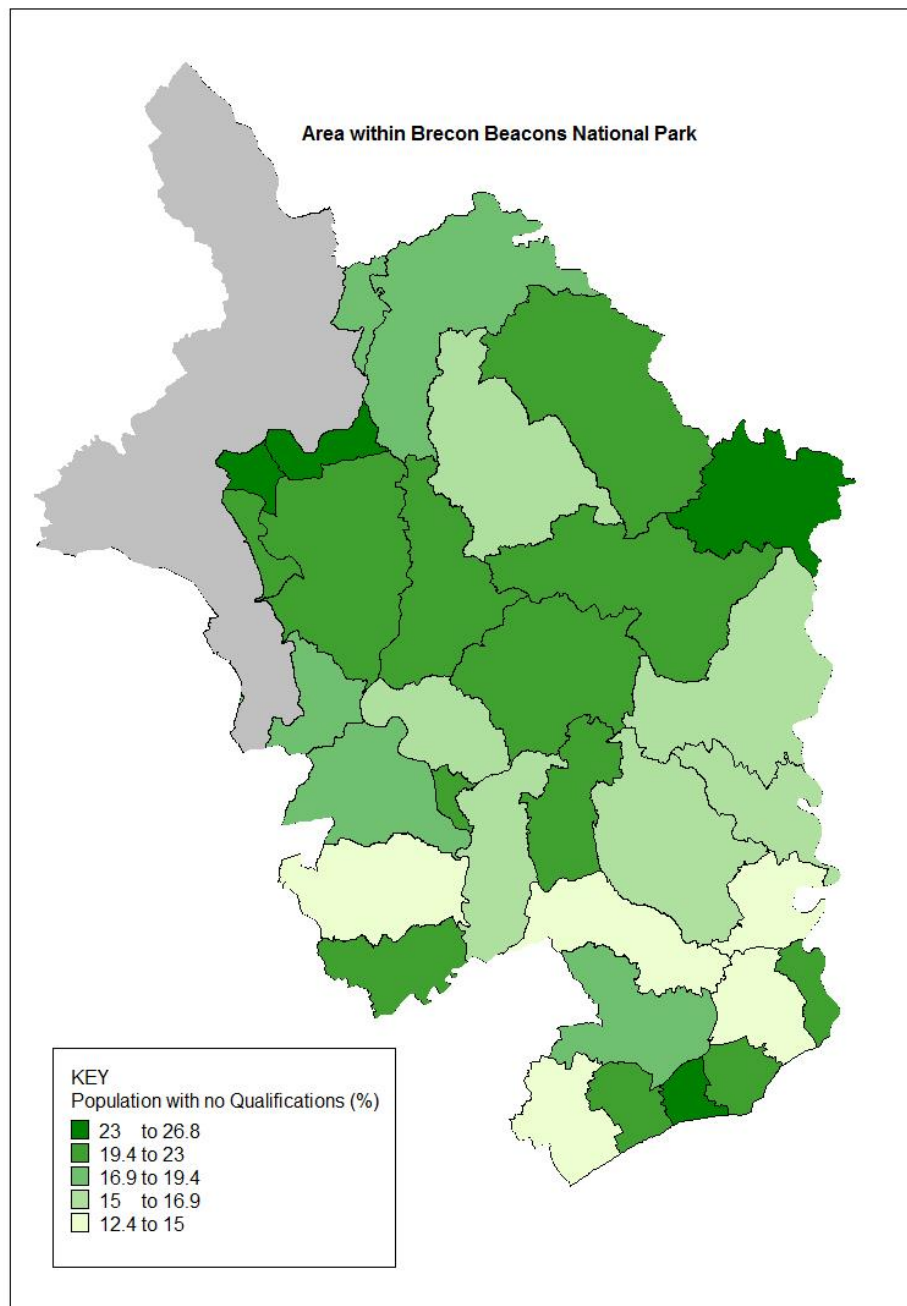
Monmouthshire has a higher percentage of its working age population qualified to NVQ4 and above than in surrounding authorities or for Wales as a whole. It also has a lower percentage of its working age population with no qualifications. Whilst Monmouthshire does have a lower percentage of its working age population with other or no qualifications there are town and community councils within the authority with higher concentrations, noticeably within the towns. The areas with the highest percentage of their working age population without qualifications are largely concentrated around the main settlements, more particularly Abergavenny and Monmouth

Chart 13: Qualifications as % of working age population (Jan 2020 – Dec 2020)



Source: ONS annual population survey (Accessed 30/04/2021)

Map 4: % of working age population with no qualifications or where the qualification level is unknown



Source: 2011 Census

2.6 Key Issues arising from a review of the Economic Baseline Characteristics

A strong local economy is vitally important for securing people's wealth, jobs and incomes. It makes a significant contribution to the quality of life and the economic, social, cultural and environmental well-being of people and communities in Monmouthshire. The following are the key issues to arise from a review of the economic baseline characteristics of the County:

- There has been a slow uptake of employment land in the County that has led to pressure for it to be used for other purposes such as housing and retail. There is a need to deliver sufficient good quality and appropriately located employment land to promote economic growth and increased employment opportunities in the County. There is also a need to consider the potential impact on the future demand for employment land given the potential impact the Covid-19 pandemic may have on levels of home working, the removal of the Severn Bridge tolls and the ambitions and opportunities associated with the Cardiff Capital Region City Deal.
- There are both opportunities and issues associated with Monmouthshire's location as a border county. Opportunities with regard to its location between Bristol and Newport and Cardiff (Great Western Cities) and issues with regard to the possible impacts of the economic growth of the Bristol/South West region.
- The ageing resident population of the County has implications for its economic base and future economic growth prospects.
- Generally, employment rates are good in Monmouthshire with 80% of the economically active in employment, higher than the Welsh average (72.8%).
- As a result of the 'dual economy' experienced by the County whilst gross weekly pay for those who live in the County is higher than the Welsh average, jobs within Monmouthshire are characterised by low average wages. Evidence continues to suggest that the income for economically active women who both live and work within the County is also significantly lower than that of men within the same category.
- There are high levels of out commuting from the County with distances travelled also relatively high.
- The County has high levels of educational attainment with the majority of people employed in higher paid/more skilled jobs, albeit that these are typically located outside of the County.
- Traditional industries such as agriculture are in decline impacting on the County's rural economy. Currently the largest proportion of jobs in the County are accounted for by the wholesale and retail trade and human health and social work.
- Tourism plays a significant part in Monmouthshire's economy particularly in assisting in the diversification of the rural economy.
- The County's town centres are generally performing well but there is a need to protect them from out of town developments and consider their evolving role/function in light of the Covid-19 pandemic.

- Higher levels of those in employment work at home (15%) compared to the Welsh average of 11.9%. An efficient digital infrastructure is needed to support home working and the general connectivity of the County's rural areas.

3.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).’

The data relates primarily to:

- Air Quality;
- Light Pollution;
- Biodiversity, Flora and Fauna;
- Geology and Soils;
- Water Environment; and
- Minerals and Waste.

3.2 Air Quality and Light Pollution

There are two Air Quality Management Areas (AQMA) within Monmouthshire, one in Chepstow and one in Usk. For several years Monmouthshire County Council has carried out the monitoring of pollutants liable to affect air quality to determine whether objective levels are being or likely to be exceeded. A Progress Report was completed in 2019 and concluded that nitrogen dioxide mean objectives continue to be exceeded at one location in Chepstow, but that for the fourth consecutive year all monitoring sites in Usk were below the annual mean objective nitrogen dioxide level in 2018. In addition, there were no recorded exceedances in either Abergavenny or Monmouth. The report identified that 2012 saw the highest concentration of nitrogen dioxide levels after a period of increases but that since 2013, with the exception of 2014, concentrations have reduced or remained stable.

The Air Quality Management Area in Usk was declared in November 2005 due to the level of NO₂ exceeding the objective level. Map 5 shows the location and boundary of the Usk AQMA.

Map 5: Usk Air Quality Management Area



Source: 2019 Air Quality Progress Report (Accessed 13/05/2021)

Table 19: Measured Annual Mean Concentrations at each Diffusion Tube Monitoring Site in Usk ($\mu\text{g}/\text{m}^3$)

Location	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
White Hart, Bridge Street	35.3	40.6	44.6	43.2	40.3	37.6	32.8	35.1	36.6	32.1
35 Bridge Street	35.4	41.7	44.9	37	42.0	40.4	34.1	35.2	35.1	30.4
Opposite 16 Bridge Street	41.9	45	44.6	46.1	43.1	40.9	38.2	37.8	35.2	30.0
4 Usk Bridge Street Mews	20.9	25.6	23.2	23.3	22.2	20.6	19.2	20.8	20.8	19.6
Castle Court	34.4	40.9	41.6	39.5	37.2	37.3	34.1	34.4	34.7	31.3
14A Castle Parade	-	34.9	37.0	34.0	33.5	34.3	30.1	30.5	31.7	27.2

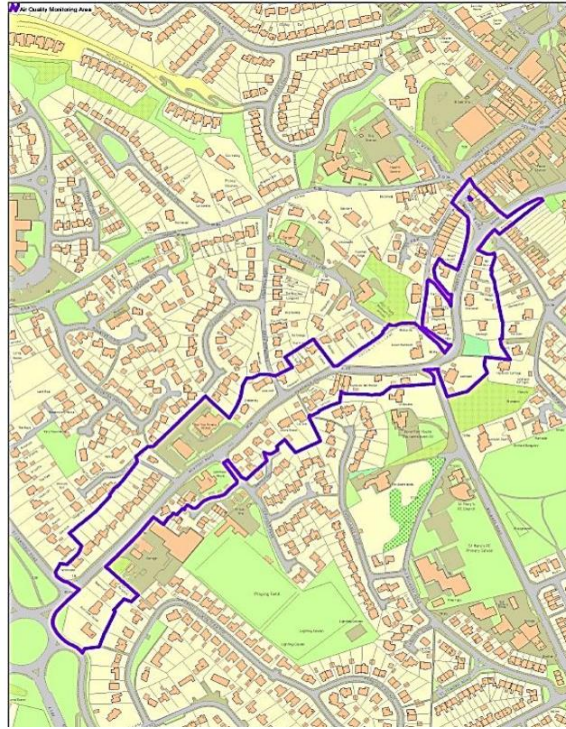
Source: 2019 Air Quality Progress Report (Accessed 13/05/2021)

<http://www.monmouthshire.gov.uk/>

Table 19 shows the annual mean concentrations at each of the monitoring sites in Usk, the figures in bold show where the level has exceeded the objective. The results show that there is a year-on-year variation at most of the locations within Usk. The

monitoring location opposite 16 Bridge Street, was consistently high up to 2014, however NO₂ Annual Mean Concentration has decrease considerably since and was at its lowest on record in 2018. Conversely, the site with the highest concentration in 2017 and 2018 was at The White Heart. This monitoring site is adjacent to a relatively narrow part of Bridge Street and is located at the junction with Porthycarne Street and Maryport Street.

Map 6: Chepstow Air Quality Management Area



Source: 2019 Air Quality Progress Report (Accessed 13/05/2021)

The Air Quality Management Area in Chepstow was declared in April 2007 due to the level of NO₂ exceeding the objective level. Map 6 shows the location and boundary of the Chepstow AQMA. Table 20 shows the annual mean concentrations at each of the monitoring sites in Chepstow, the figures in bold show where the level has exceeded the objective. The results show that there is also a year-on-year variation at the locations monitored within Chepstow. The highest measured concentration in 2018 was 42.5 µg/m³ at 2 Hardwick Hill, which is representative of relevant exposure and is higher than the objective of 40 µg/m³. However, this figure had decreased from a 67.5 µg/m³ high in 2011 and the 2018 figure of 42.5 µg/m³, is considerably below that of 2017 (51.1 µg/m³).

Table 20: Measured Annual Mean Concentrations at a selection of the Diffusion Tube Monitoring Sites in Chepstow (µg/m3)

Location	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
38 Larkfield Park	21.4	23.5	25.4	26.1	19.8	21.8	22.5	22.9	22.2	19.1
High Beeches at Larkfield School, Newport Road	30	31	34.5	33.0	30.4	40.9	38.0	31.0	27.9	27.8
Wayside, Hardwick Hill	-	-	36.8	36.7	32.7	32.5	29.8	31.1	29.9	26.5
Rainwater Pipe, Hill House, Hardwick Hill	36	39.2	45.7	44.0	40.0	40.0	36.8	37.6	37.1	34.3
2 Hardwick Hill	53.9	51.5	67.5	62.2	56.0	57.7	51.4	53.2	51.1	42.5
1 Ashfield Hs. Mt. Pleasant	-	-	34.2	34.3	28.4	26.1	25.9	26.7	26.8	23.5
2 Hardwick Terrace	-	-	34.2	34.7	30.6	28.4	26.9	27.9	25.9	25.1
Lamp Post, Moor Street	-	-	36.9	36.6	31.1	31.8	28.1	27.7	27.1	26.4
Garden City Way			34.3	31.7	28.1	27.8	25.5	27.2	26.8	23.6
AQMS Hardwick Hill	38	39	40.0	41.5	34.5	38.6	37	35	35	36

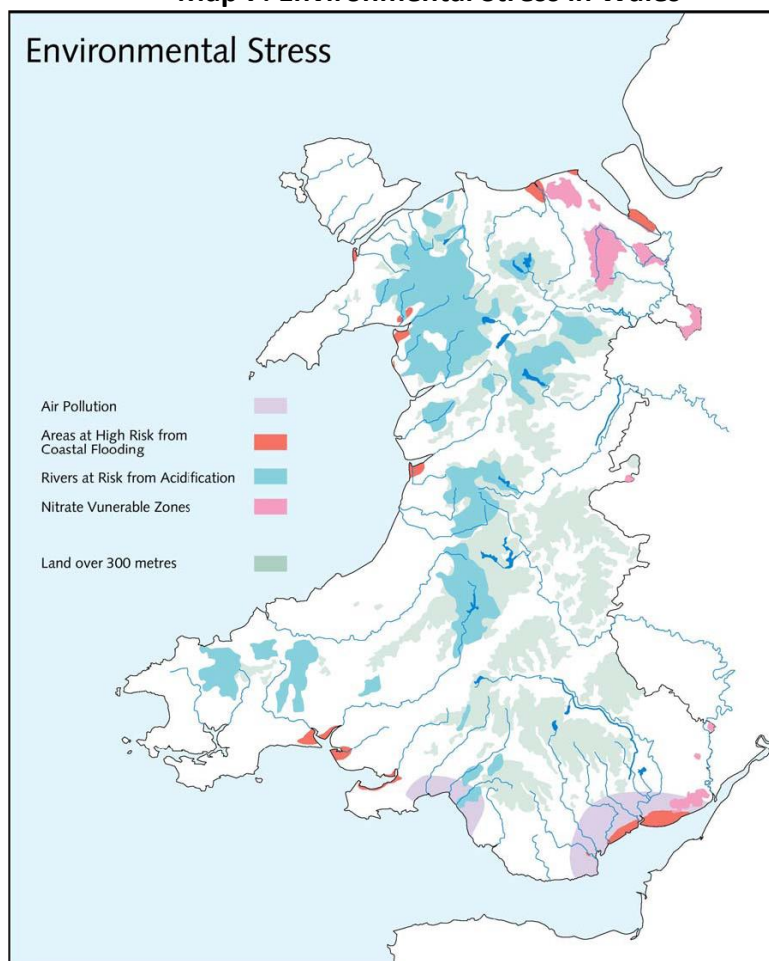
Source: 2019 Air Quality Progress Report (Accessed 13/05/2021)

In 2005, Data Unit Wales suggest that there were 10.2 tonnes of CO² emissions per resident of Monmouthshire. In 2010 this figure was 8.7 tonnes and in 2015 was 7.2 tonnes per resident. The latest data available (2018) suggests that there were 6.7 tonnes of CO² emissions per resident of Monmouthshire compared to the Welsh figure of 7.5 tonnes in 2018.

Data available from InfoBaseCymru suggests that in 2018, of the 634.5 kilotonnes of CO₂ emissions in 2018 in Monmouthshire, 345.8 were from road transport, accounting for 54.5% of CO₂ emissions in 2018. At the same time, the domestic environment accounted for 24.3%. In 2018, emissions from road transport in Monmouthshire accounted for 1.5% of total carbon emissions in Wales. In 2018, Monmouthshire accounted for 2.7% of CO₂ emissions in Wales and was 8th lowest out of the 22 Local Authorities.

Map 7 produced by the Welsh Government identifies areas of Environmental Stress in Wales. Air pollution is one of the indicators. This suggests that southern Monmouthshire, adjacent to the main urban area in South East Wales, may be at some risk on this indicator.

Map 7: Environmental Stress in Wales



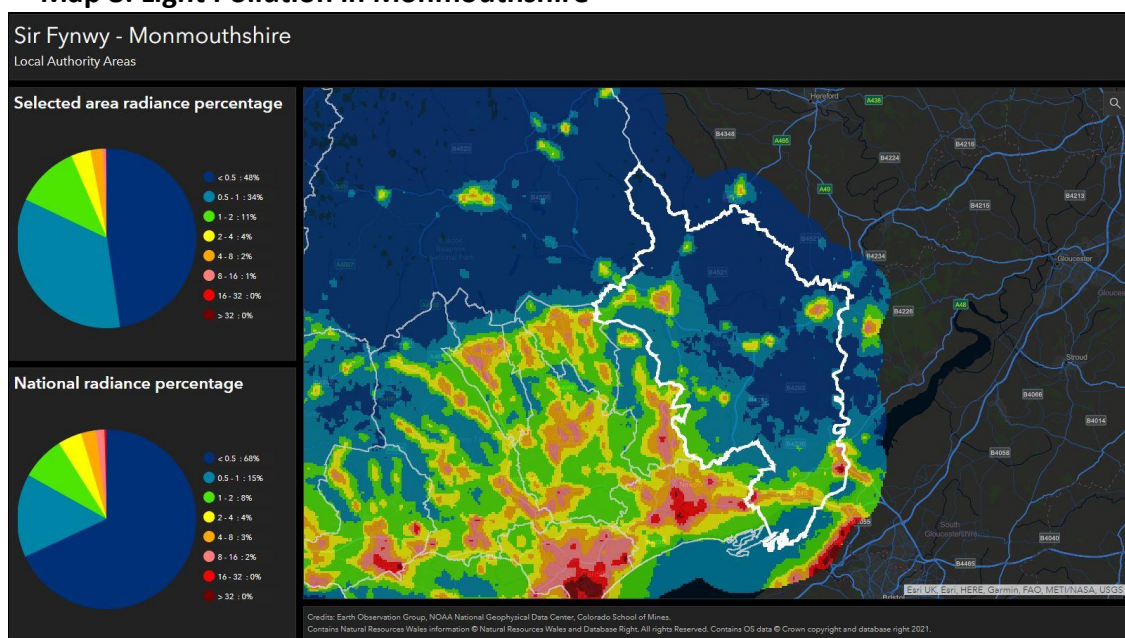
Source: Welsh Assembly Government (2004) Peoples, Places, Futures The Wales Spatial Plan

In December 2020 Natural Resources Wales (NRW) commissioned LUC (Land Use Consultants) to develop a new 'Tranquility & Place – Dark Skies' map that 'identifies the strategic and local resource in remote, rural, peri-urban and urban areas for use as an evidence base'. The report and study were undertaken in recognition that night skies free of light pollution are important to both human, wildlife and ecosystem wellbeing. The key findings from the report identified that more than two thirds of Wales are within the darkest skies (<0.5) category, as defined by the report and that Mid-Wales was the darkest region with more than 90% within the darkest category. Table 21 below illustrates the results for Monmouthshire in comparison to neighbouring authorities and Wales as a whole.

Table 21: Light Pollution in Monmouthshire and surrounding authorities (%)

	<0.5	0.5 - 1	1 - 2	2 - 4	4 - 8	8 - 16	16-32	>32
Wales	68.1	15.0	7.9	4.3	2.7	1.5	0.4	0.1
Monmouthshire	47.7	34.4	11.4	3.5	2.2	0.6	0.2	0
Torfaen	0	28.1	31.1	19.7	13	7.8	0.4	0
Blaenau Gwent	0	17.4	37.8	25.2	18.1	1.5	0	0
Powys	93.1	5.1	1.2	0.5	0.2	0	0	0
Newport	0	11.8	25.6	24.0	18.3	13.2	6.8	0.3
SE Wales	17.2	23.9	26.5	15.4	9.4	5.7	1.5	0.5

Light pollution is measured in brightness values (nw/cm²/sr) whereby the lower the value the lower the light pollution and the higher the value the greater the light pollution. In the darkest sky category (<0.5), Powys had the highest proportion in Wales with 93.1%. Conversely, in the brightest sky category (>32), Cardiff had the highest proportion with 7%. Monmouthshire had 47.7% in the darkest sky category and 0% in the brightest, in comparison to 68.1% and 0.1% for Wales respectively. Map 8 below illustrates the levels of light pollution in Monmouthshire and the wider South East Wales area. As expected, light pollution in Monmouthshire is concentrated around the larger settlements within the County, where relatively large areas to the north of Raglan and between Abergavenny and Monmouth and south of Monmouth in the Wye Valley Area of Outstanding Natural Beauty (AONB) have less light pollution. There is also a concentration of light pollution, in the Severnside area and around the M4 corridor.

Map 8: Light Pollution in Monmouthshire

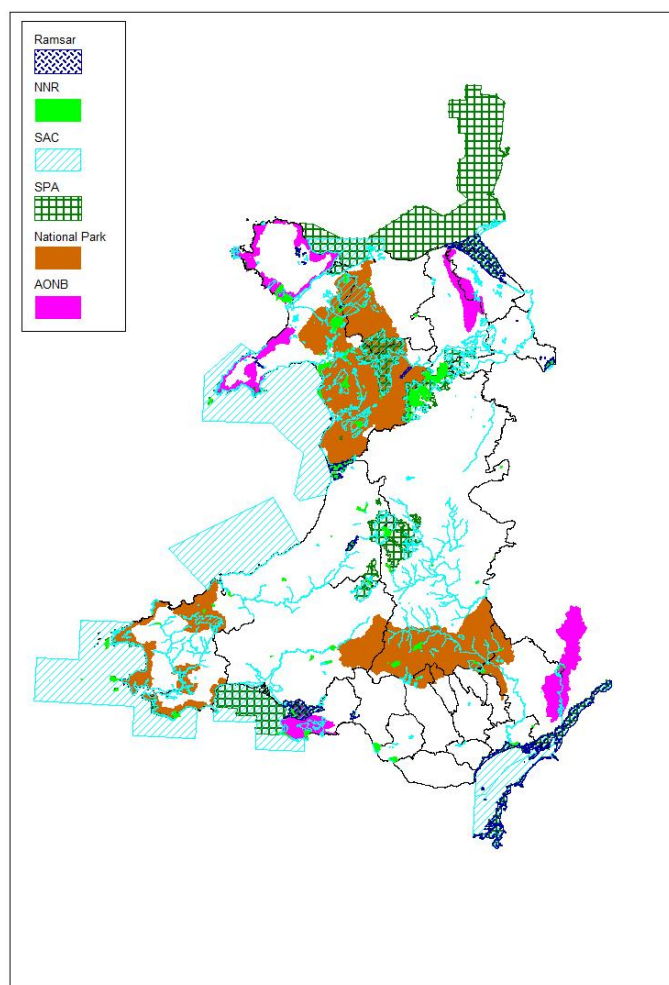
Source: NRW and LUC Dark Skies and Light Pollution in Wales Map -

<https://luc.maps.arcgis.com/apps/opsdashboard/index.html#/1cd6ba8a1d7d4a62aff635cfcbaf4a6c> (accessed 18/05/2021) Contains Natural Resources Wales Information © Natural Resources Wales and Database Right. All rights reserved. Contains OS data © Crown copyright and database rights 2021.

3.3 Biodiversity, Flora & Fauna

Monmouthshire has a broad biodiversity interest extending from the lowlands in the south of the County to the hills and uplands in the north. Map 8 identifies international and national designations of biodiversity value in Wales and illustrates the extent of the designations both within and adjacent to Monmouthshire. The primary locations for nature conservation resources within the County are the Severn Estuary, the three main rivers, the Gwent Levels, and the grasslands and woodlands in the Wye Valley. Maps 9 and 10, however, show that there is generally a wide distribution across the County of important areas of interest. Monmouthshire has a number of designated sites of international importance, designated under the EU Birds Directive (Directive 2009/147/EC/ on the conservation of wild birds) as Special Protection Areas or under the European Habitats Directive (Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna) as Special Areas of Conservation. The Severn Estuary is also a Ramsar site. The County has a range of areas designated as Sites of Special Scientific Interest under the Wildlife and Countryside Act 1981. There is one Local Nature Reserve that is also a SSSI. The County is also important for a range of Habitats and Species of Principle Importance for Conservation in Wales (Section 7, Environment Wales Act 2016) and Monmouthshire County Council must seek to maintain and enhance these and ecosystem resilience through the exercise of their functions (Section 6, Environment Wales Act 2016). Local Wildlife Sites and Sites of Importance for Nature Conservation have also been designated across the County including a range of habitat types from Ancient Woodland to Open Mosaic (brownfield) sites.

Map 9: International and National Designations of Biodiversity Value in Wales



Source: Countryside Council for Wales (2011)

3.3.1 The Severn Estuary

The Severn Estuary is the only area within Monmouthshire identified as a Special Protection Area (SPA); it is also designated as a Special Area for Conservation (SAC) owing to its importance for bird conservation, supporting a wide range of nationally and internationally important habitats and species. The Severn Estuary SPA covers approximately 6846 hectares in Wales (the full extent of which is shown in Map 9, of which some 3664 hectares are within the Monmouthshire area. The Severn Estuary consists of intertidal mudflats and sandflats, sandbanks, sabellaria reefs, saltmarsh, shingle and rocky shore, coastal grazing marsh and ditches. The estuary is an important habitat for migratory fish and has the second highest tidal range in the world. The Severn Estuary is also designated as a Ramsar Site - a Wetland of International Importance; it is an important wintering ground for a range of migratory wildfowl and waders (approximately 60,000) including the key species of the European white-fronted goose, bewick's swan, shelduck, dunlin and redshank. The Severn Estuary is also a Site of Special Scientific Interest (SSSI).

3.3.2 Special Areas for Conservation

There are 4 other Special Areas for Conservation (SAC) within the Monmouthshire Planning Area; the River Wye, the River Usk, the Wye Valley woodlands and the Wye Valley bat sites. The Usk Bat Sites SAC and the Sugar Loaf Woodlands SAC are located within the Brecon Beacons National Park but are close enough to the boundary to need consideration. As bats are particularly mobile they rely on other sites for feeding, passage and roosting including the town of Abergavenny and its surrounding area. The Sugar Loaf woodlands are vulnerable to changes in air quality with one unit of the SAC sitting close to the town of Abergavenny. SACs along with SPAs are collectively known as European sites and (post Brexit) as National Site Network sites (replacing the term Natura 2000 sites) and have the highest possible protection for a nature conservation site in planning law.

The part of the River Usk SAC that runs through the Monmouthshire Planning area measures approximately 253.2 hectares and the part of the River Wye SAC running through the County measures approximately 220.4 hectares. Both rivers provide valuable wildlife corridors and connectivity between habitats that are important for many species. The total area of SAC's within the Monmouthshire area however measures approximately 871.6 hectares showing that it is not only the rivers within the County that are of European Importance.

3.3.3 Sites of Special Scientific Interest

There are 50 nationally designated Sites of Special Scientific Interest (SSSIs) within the Monmouthshire planning area. Most are woodland or grassland sites, with others designated for their wetland or geological interest, there are also a few designated for bat interest. The total area covered by SSSIs within Monmouthshire (excluding the Severn Estuary) measures some 2,147 hectares.

3.3.4 National Nature Reserves

National Nature Reserves (NNR) represent the very best examples of our wildlife habitats and geographical features. There are two NNRs within Monmouthshire; Fiddler's Elbow (woodland) and Lady Park Wood. Lady Park Wood is partly in England, although 39.22 hectares are located within Monmouthshire. The National Nature Reserves within Monmouthshire cover approximately 82.52 hectares in total, the locations of which are shown on Maps 8 and 9.

3.3.5 Local Nature Reserves

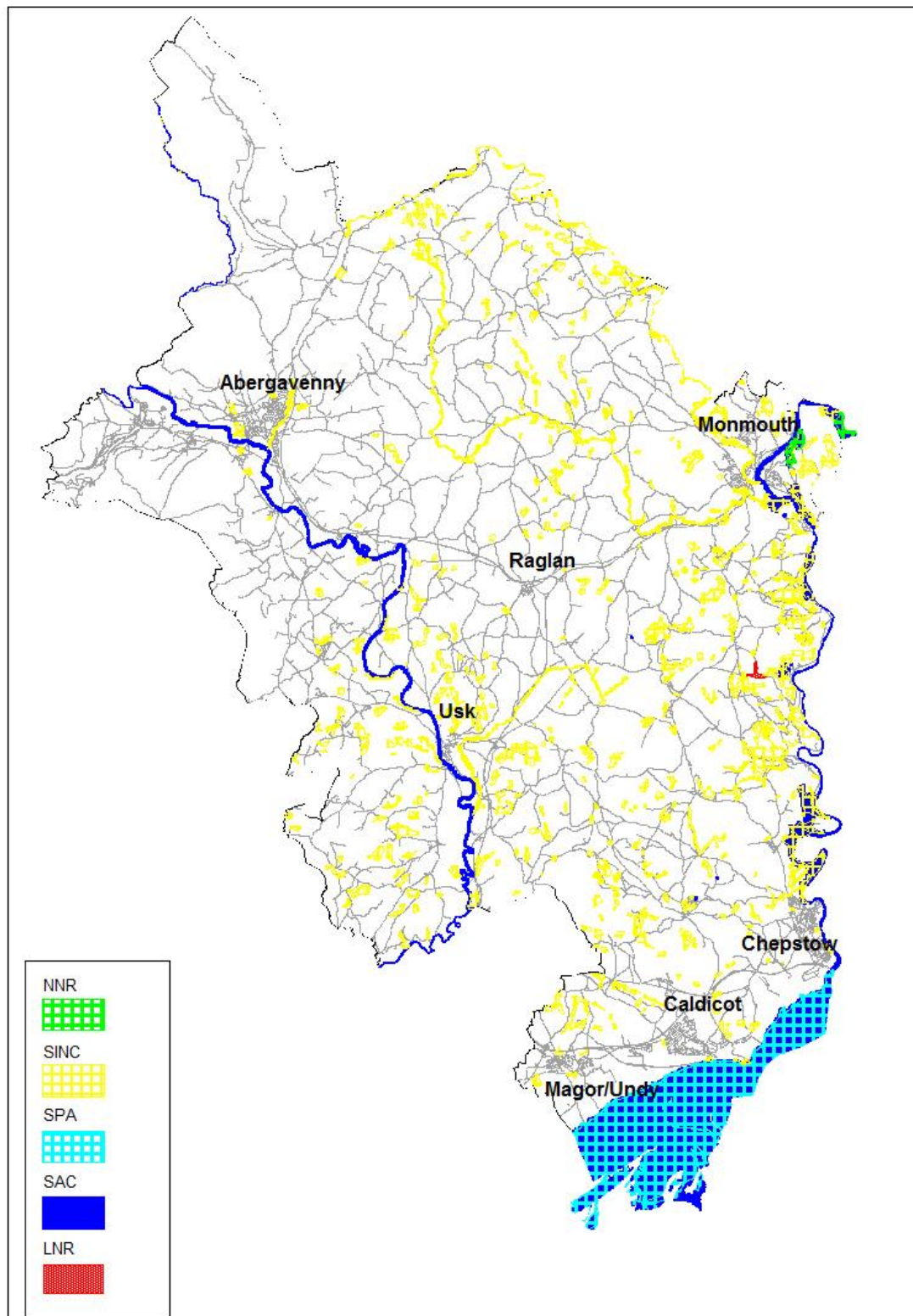
Many local authorities in Wales have set up Local Nature Reserves (LNRs) which have natural features of special interest to their local area. LNRs can help protect habitats and species whilst making people more aware of local wildlife and offer an ideal place for children to learn about nature. Cleddon Bog is currently the only local authority designated LNR within Monmouthshire, measuring approximately 14.12 hectares. This

nature reserve is also wholly designated as a SSSI, Cleddon Bog can be identified on Map 10.

3.3.6 Sites of Importance for Nature Conservation

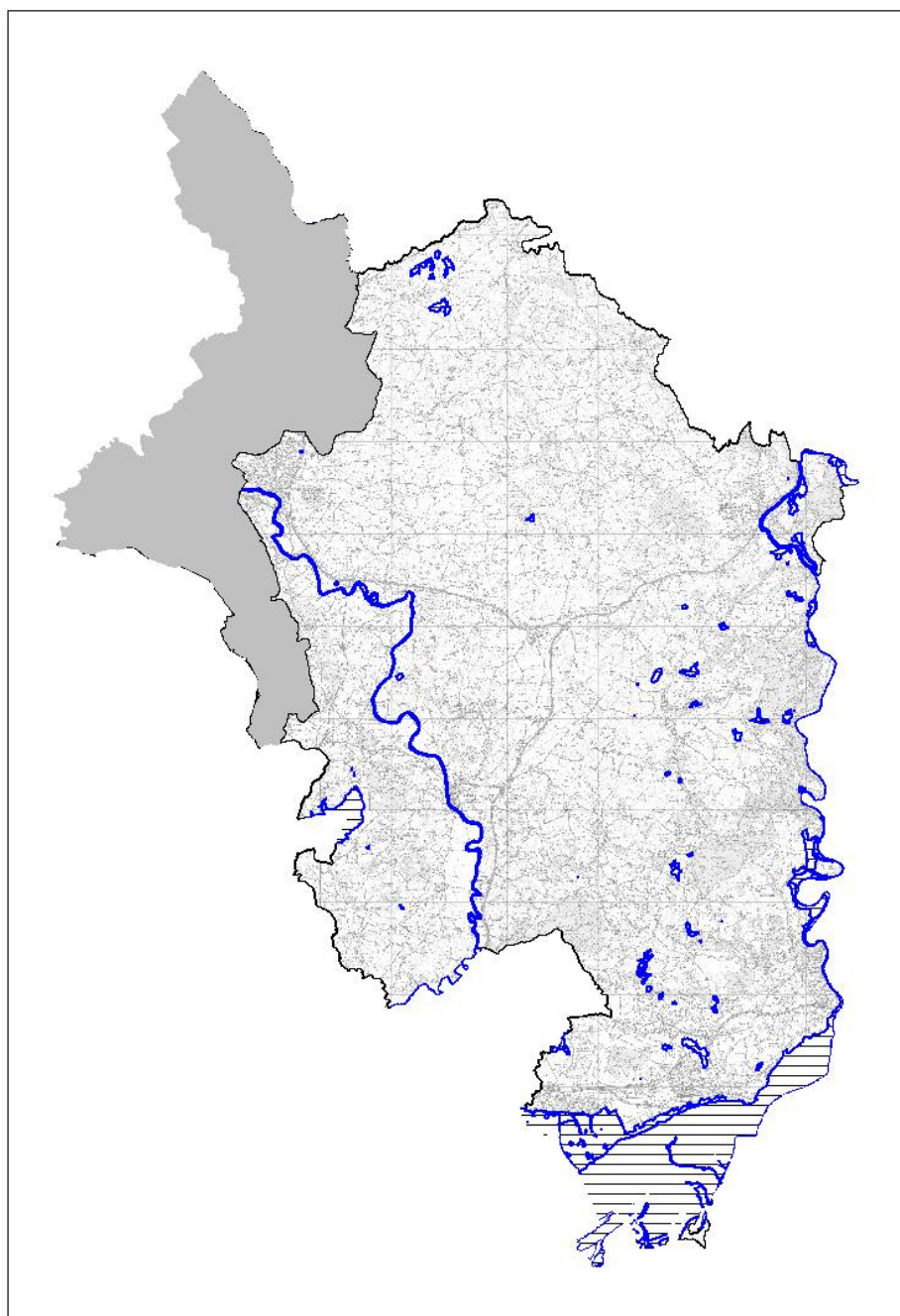
Sites of Importance for Nature Conservation (SINCs) are also known as Local Wildlife Sites. SINCs are locally valued non-statutory sites for biodiversity. They are defined areas identified and selected for their substantive nature conservation value. Their selection takes into consideration the most important, distinctive and threatened habitats within a national, regional and local context. They are sites that do not have the statutory protection of European or Nationally important sites but are often of a very high quality and important for maintaining biodiversity. There are approximately 680 SINCs identified in the County predominantly in relation to grassland and ancient and semi-natural woodland areas. Four watercourse SINCs have been designated covering approximately 88km, the River Gavenny, River Trothy, River Monnow and the Olway Brook.

Map 10: Location of International, National and Locally Designated Sites for Biodiversity Value.



Source: CCW 2011/Monmouthshire County Council 2011

Map 11: Location of Sites of Special Scientific Interest within Monmouthshire.



Source: Monmouthshire County Council 2011

3.3.7 Conservation Objectives

Each of the National Site Network sites within the Monmouthshire Planning Area has a core management plan which includes a set of conservation objectives for each of the site interest features. There is no trend data available in relation to the status of conservation objectives, which is considered to be a data gap.

3.3.8 Protected and Rare Species

The Conservation of Habitats and Species Regulations 2017 set out the European protected species and the Wildlife & Countryside Act 1981 sets out those that are Nationally protected. A large number of protected species are located within Monmouthshire among which are; bats, dormouse, great crested newt, otter, barn owl, Peregrine falcon, goshawk, adder, slow worm, among others. A number of species listed on Schedule 4 of the Conservation of Habitats and Species Regulations 2017 which may not be taken or killed in certain ways, are also found in Monmouthshire, often on protected sites, such as the River Wye SAC. The following fish within this schedule are identified within Monmouthshire; allis shad, twaite shad, river lamprey, Atlantic salmon and grayling. This list is not exhaustive.

Monmouthshire supports many important habitats and species. Over 470 species are identified so far that are important in Monmouthshire. Over 225 of these species are listed on Section 7 of the Environment Wales Act 2016 as living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales including 16 Mammals, 44 Birds and 113 Invertebrate species. The Local Planning Authority has a duty to maintain and enhance these species in accordance with the Section 6 duty of the Act

Among the nationally scarce and declining habitats, perhaps the most important and most threatened in Monmouthshire is the scattering of remnant species-rich grassland many of which have been designated as Local Wildlife Sites. Other Section 7 habitats important in Monmouthshire include woodlands and those habitats associated with the coast and marine habitats.

3.3.9 Invasive Plants

The issue of invasive plants is an on-going problem within Monmouthshire, there is a duty in terms of development not to spread any more invasive species. Some site specific project work has been undertaken in the AONB and adjacent the river Usk, there is however a considerable data gap in relation to invasive species.

3.3.10 Biodiversity Loss

Species extinction is a process that occurs naturally. However, the natural rate of extinction has rapidly accelerated as a direct result of the expansion and development of human society. The primary cause of species extinction globally is habitat loss. Any

loss of habitat in Monmouthshire is picked up as part of the annual monitoring of the Adopted LDP.

3.3.11 Habitat Fragmentation

Habitat fragmentation involves the breaking up of large areas of habitat into small, unconnected 'islands'. These habitat fragments are often too small to support viable populations of many plant and animal species, leaving them vulnerable to extinction. As a result, species that have taken tens or hundreds of thousands of years to evolve naturally can be lost very quickly and cannot be recreated. Examples of habitat fragmentation within Monmouthshire include fragmentation of hedgerow caused by development and canalised streams and rivers. There is however a data gap in relation to habitat fragmentation in Monmouthshire.

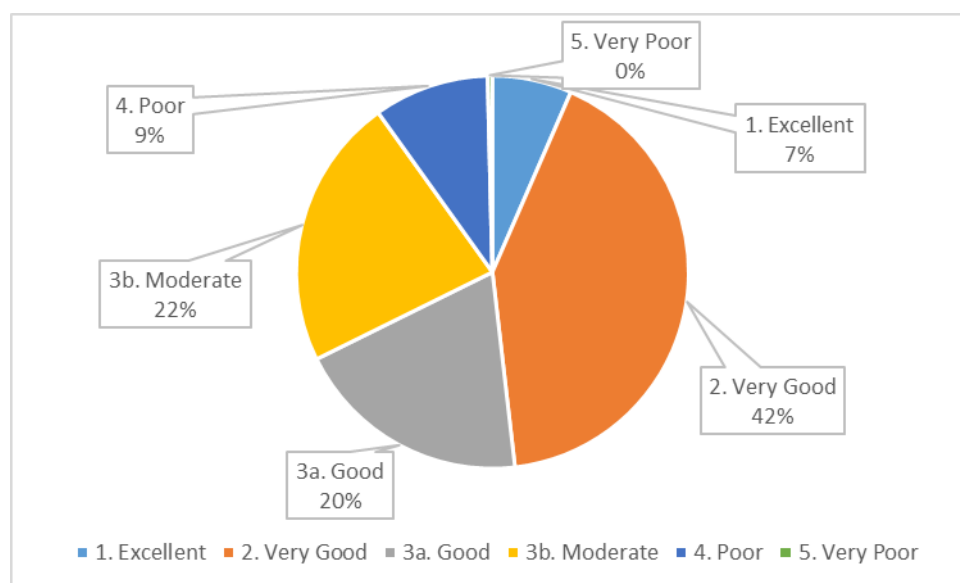
3.4 Geology & Soils

3.4.1 Soil types

The soil type for the majority of the County has been identified as 'brown earths' with some 'ground water gleys' to the South of the County in the Gwent levels Site of Special Scientific Interest (SSSI). Approximately 30.22% of soils in the UK are identified as brown earths and are characteristically deep, well-drained fertile soils suitable for agricultural use. There are significantly less ground water gleys within the UK, approximately 3.26%, these soils are best described as permeable, seasonally waterlogged soils affected by the groundwater table. (Source: 'Soils in the Welsh Landscape' Royal Agricultural College accessed 15/10/07)

3.4.2 Agricultural Land

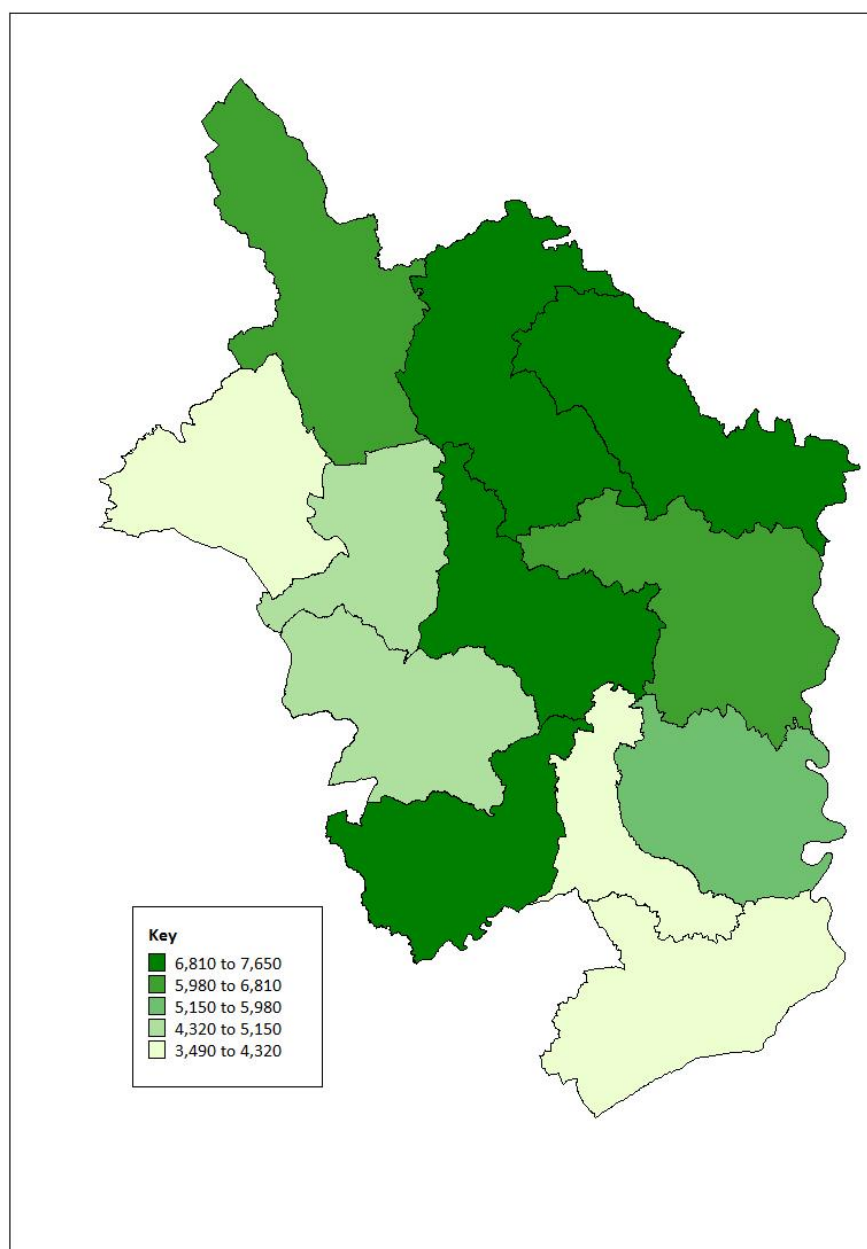
Chart 14: Agricultural Land Classification, proportion by grade



Source: Welsh Government – Agricultural Land Classification Maps (November 2017)

Agricultural land is classified by the Agricultural Land Classification (ALC) system which helps identify the quality of farmland in both England and Wales. The system classifies land into five grades, where 1 is the best and 5 the worst. Grade 3 is subdivided into subgrades 3a and 3b. Chart 14 shows that the largest proportion of agricultural land (42%) in Monmouthshire falls under grade 2, 'very good' agricultural land. This land is mainly identified near Caerwent, Llanvair Discoed, Caldicot and Mathern in the South of the County. A further 7% of the land is classified as grade 1 (excellent). The proportion of 'good to moderate' (grade 3) agricultural land within the County also represents 42%. The percentage of 'poor' (grade 4) quality agricultural land in Monmouthshire is 9%.

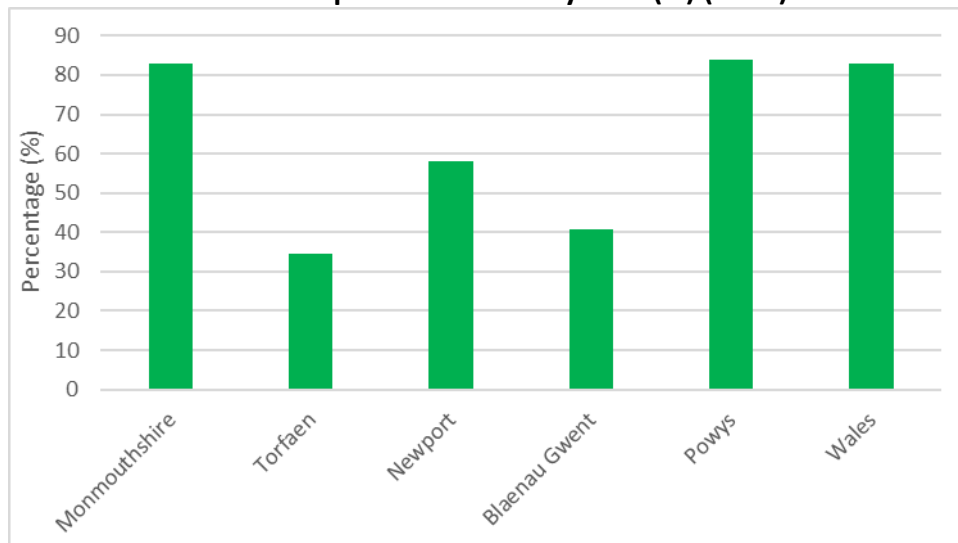
Map 12: Total area farmed within Monmouthshire in hectares (2018)



Source: Statistical Bulletin 46/2018: Agricultural Small Area Statistics for Wales, Welsh Government

Map 12 shows the total area farmed within Monmouthshire as of 2018. The areas with the highest proportion of farming land in 2018 were in the centre and north east of the County. Chart 15 shows that whilst the percentage of farming land within Monmouthshire is in line with the Welsh average, it is considerably higher than Torfaen, Blaenau Gwent and Newport. Powys, however, has a marginally higher proportion of farming land within its local authority area.

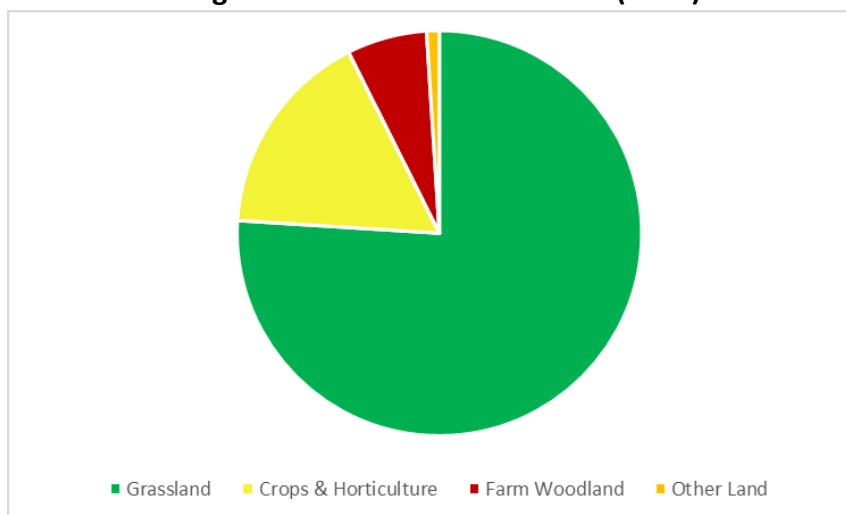
Chart 15: Total area farmed per local authority area (%) (2018)



Source: Agricultural Small Area Statistics for Wales, Welsh Government

3.4.3 Use of Farming Land

Chart 16: Use of farming land within Monmouthshire (2018)



Source: Agricultural Small Area Statistics for Wales, Welsh Government

Chart 16 breaks down the use of farming land within Monmouthshire, approximately three quarters of land (76%) is identified as grassland compared to a Welsh average of

approximately 73%. A further 16.6% is being used for crops and horticulture which compares to a 4.6% average in Wales, there is also a small proportion of farm woodland (6.4%) within Monmouthshire which compares to a Welsh average of 4.7%. The majority of farmland in Monmouthshire is used as grassland, and the proportion is marginally higher than the Welsh proportion. The proportion of farming land in use for crops and horticulture is significantly higher than the Welsh average. The grassland classification has been broken down further, indicating that within the County, there is a considerably larger percentage of Permanent Pasture, totalling approximately 84.1%; approximately 2.6% is identified as Rough Grazing land; and approximately 7.8% is identified as New Grassland.

3.4.4 Land quality- contaminated land

Monmouthshire has 330 separate areas of contaminated land, excluding the Brecon Beacons National Park (BBNP). These 330 sites represent a total area of approximately 520 hectares.

3.4.5 Use of brownfield sites- previously developed land

Chart 17: Number of housing completions on greenfield/brownfield land.



Source: Monmouthshire Housing Land Availability Surveys 2008-2021

The figures for the percentage of housing completions on greenfield/brownfield land have been determined using the Monmouthshire County Council Housing Land Availability Surveys, which are conducted on an annual basis. The average percentage of housing completions on brownfield land over the period totals approximately 50%. The limited supply of brownfield land is a significant issue in the Monmouthshire County.

3.5 Water

3.5.1 Water Framework Directive

The Water Framework Directive (WFD) establishes a framework for the protection of surface waters (rivers, lakes, estuaries and coastal waters) and groundwaters. Its purpose is to prevent deterioration and improve the status of aquatic ecosystems, promote sustainable water use, reduce pollution of groundwater and contribute to mitigating the effects of floods and droughts. The WFD originates from the European Union (EU) but has been retained in UK law despite the UK's departure from the EU. The WFD requires member states to strive to meet the objective of at least good water status by defining and putting in place measures whilst accounting for community requirements. This means that we must protect and improve the quality of our water bodies so that they can support natural biological communities and are free from pollution and where there is an increase in pollution, this should be identified and reversed.

The characterisation of water bodies has been part of a two-stage assessment under the WFD. Stage 1 identified water bodies and described their natural characteristics. Stage 2 assessed the pressures and impacts on them from human activities. The assessment identified those water bodies that are at risk of not achieving the environmental objectives set out in the WFD. The cycle 2 interim classification on the status of freshwater WFD water bodies in Wales has now been published. This is an update of the WFD second cycle 2015 classification and is named the WFD Cycle 2 Interim Classification 2018. It enables NRW to review progress mid-point in the WFD cycle.

There are 45 water bodies within Monmouthshire, 38 surface waters, such as rivers, lakes, canals and reens, and 7 groundwaters. 37 of these water bodies have been designated as protected areas, these are areas requiring special protection under other EC directives and waters used for the abstraction of drinking water.

3.5.2 Ecological and Chemical Water Quality

The maps below show the baseline, 2009, classification of WFD water bodies. The Water Framework Directive requires there to be no deterioration from this baseline. The aim was to achieve at least Good status by 2015. Where this was not possible and subject to the criteria set out in the Directive, the aim is to achieve Good status by 2021 or 2027.

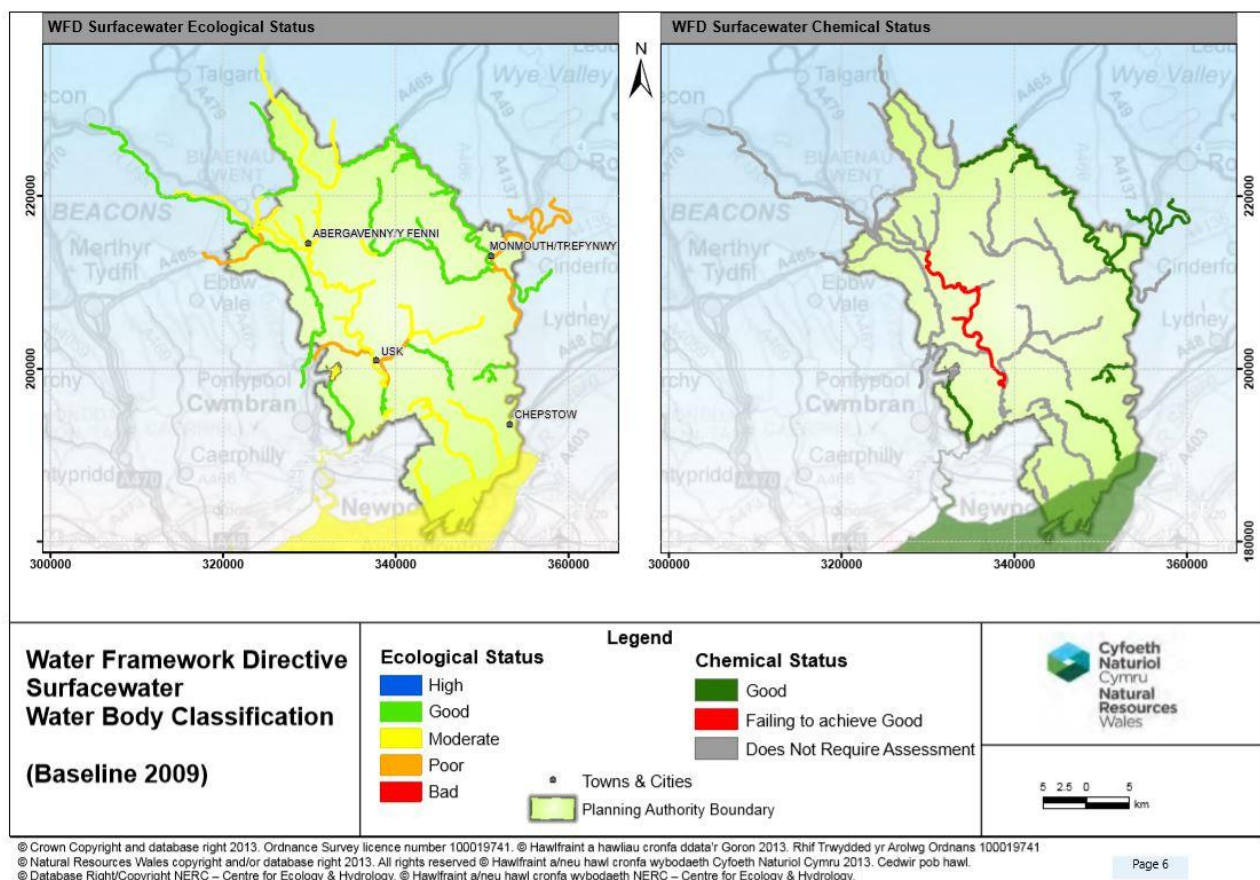
The ecological river quality is a measure of the present ecological condition of a surface water body and is based on biological quality, general chemical and physico-chemical quality, water quality with respect to specific pollutants both synthetic and non-synthetic and hydromorphological quality. There are five classes of ecological status of surface waters (high, good, moderate, poor or bad).

The chemical quality is a measure of the present chemical condition of a water body (also called Chemical Status). This is assessed by compliance with the environmental standards for chemicals that are listed in the Environmental Quality Standards Directive 2008/105/EC and include priority substances, priority hazardous substances and 8 other pollutants. There are two classes of chemical status of a water body good or fail. Not all water bodies are required to be assessed for chemical status, of the 15 in Monmouthshire which are required to be assessed 2 are failing to achieve good status, one groundwater and one river. The river that is failing is the section of the River Usk between the confluence with the River Gavenny and the confluence with the Olway Brook.

The main reasons for the failures identified by these assessments have been identified as diffuse pollution from agriculture, low flows/abstraction and physical modifications to watercourses, predominantly barriers to fish migration. In addition, there are some known urban diffuse sources from combined sewer overflows/misconnections, affecting the Nedern Brook and the Gavenny River.

In the latest 2018 (Interim) Water Framework Directive Classification, 32% of rivers in Monmouthshire achieve Good status. (Contains Natural Resources Wales information © Natural Resources Wales and database right. All rights reserved.)

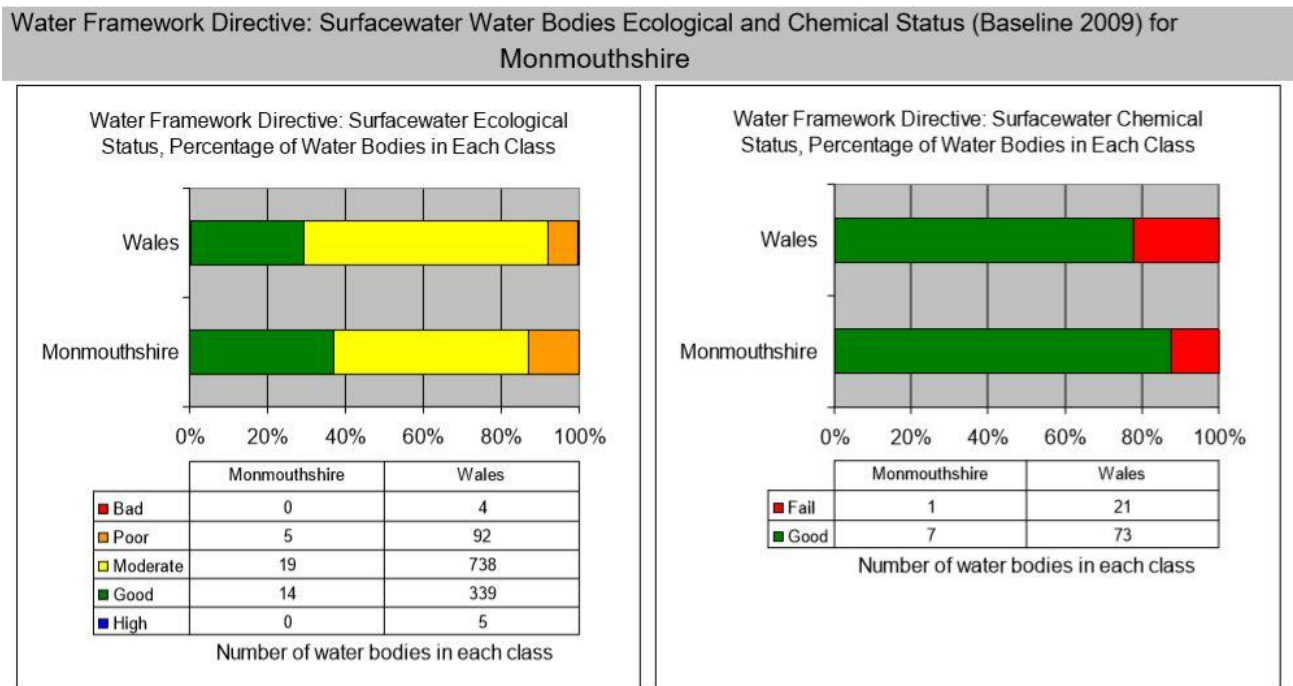
Map 13: Ecological Quality and Chemical Water Quality



Source: NRW Local Evidence Package – Monmouthshire (Accessed 01/10/2018)

The Environment Agency's 2009 water body's status summary for Monmouthshire shows that 24 of the surface water bodies, 1 lake, 20 rivers and 3 transitional water bodies, that is those water bodies which are intermediate between fresh and marine water, are failing to achieve good ecological status. Among these are Llandegfedd Reservoir, sections of the Rivers Wye, Gavenny, Usk and Monnow and the Olway and Neddern Brooks.

Chart 18: % of Water Bodies in Each Class

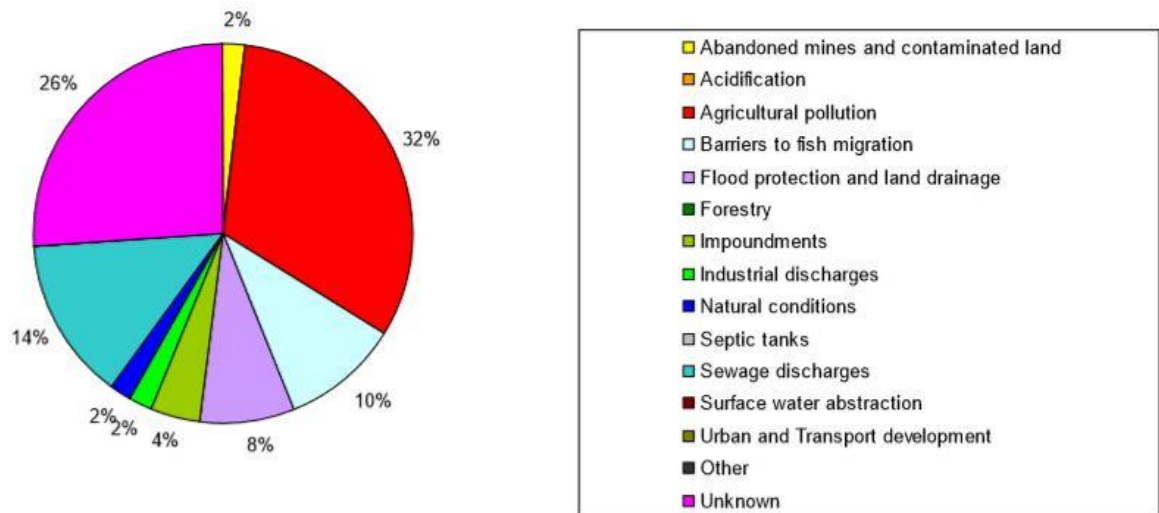


Source: NRW Local Evidence Package – Monmouthshire (Accessed 01/10/2018)

From chart 18 it can be seen that Monmouthshire has a higher percentage (36.8%) of surface water bodies classified as good in terms of their ecological status than Wales as a whole (28.8%). The County also has a higher percentage (87.5%) of surface water bodies whose chemical status is classed as good than Wales (77.7%).

Chart 19 shows confirmed or suspected reasons for water bodies in Monmouthshire that are failing to meet WFD objectives. It includes all water body types. The chart does not show the number of water bodies failing for particular reasons. It shows the number of times each reason for failure has been identified and is indicative only. There can be more than one reason for failure for each water body. For Monmouthshire the main reason for failure is agricultural pollution.

Chart 19: Reasons for Failure for Water Bodies



Source: NRW Local Evidence Package – Monmouthshire (Accessed 01/10/2018)

3.5.3 Groundwater sources

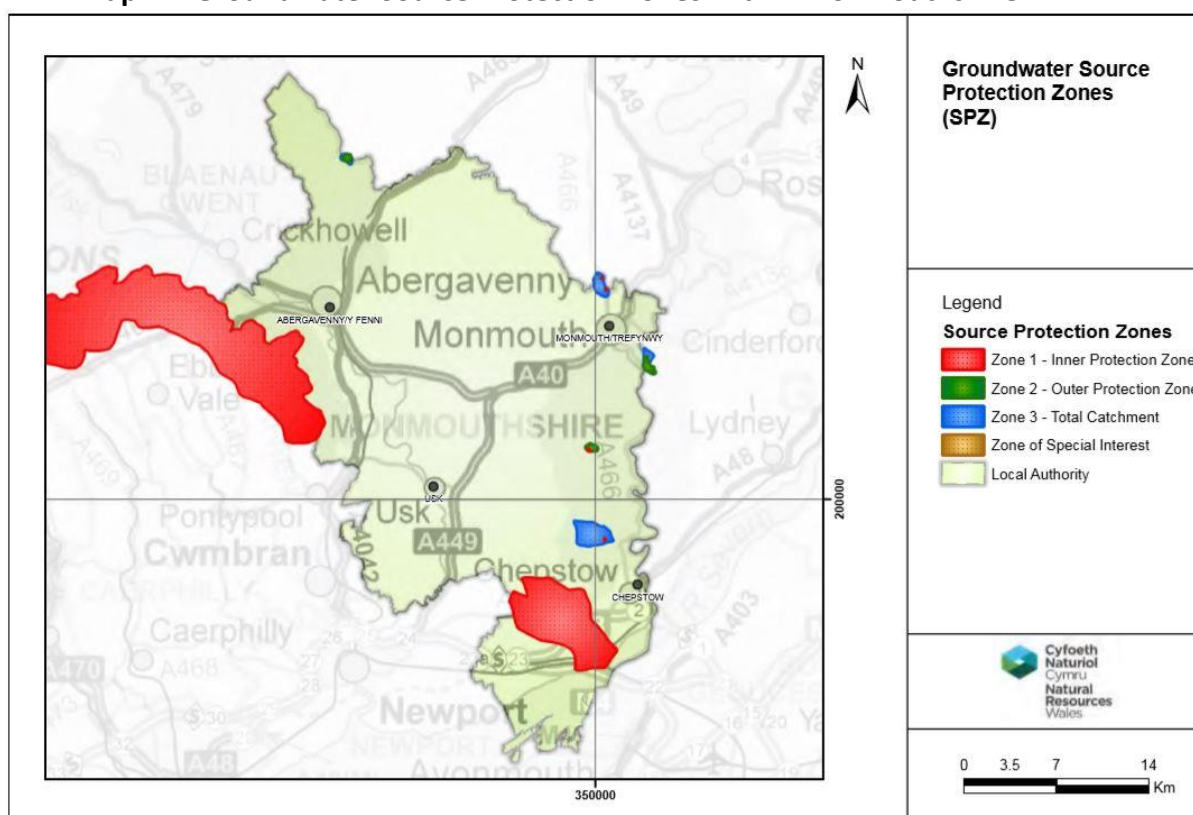
Source Protection Zones (S.P.Z.s) are defined by the Environment Agency for groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones monitor the risk of contamination from any activities that might cause pollution in the area. Groundwater supplies about 10% of drinking water in Wales and is a key resource. Groundwater also helps to maintain the flow in many of our rivers and wetland ecosystems.

Map 14 shows the location of the Source Protections Zones (S.P.Z.) in the Monmouthshire planning administrative area. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk. The maps show three main zones (inner, outer and total catchment) and a fourth zone of special interest, which occasionally apply, to a groundwater source.

- Zone 1 (Inner protection zone) Defined as the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50 metres.
- Zone 2 (Outer protection zone) Defined by the 400-day travel time from a point below the water table. Additionally this zone has a minimum radius of 250 or 500 metres, depending on the size of the abstraction.
- Zone 3 (Total catchment) this zone is defined as the total area needed to support the abstraction or discharge from the protected groundwater source.
- Zone of special interest a fourth zone SPZ4 or 'Zone of Special Interest' was previously defined for some groundwater sources. These zones highlighted areas (mainly on non-aquifers) where known local conditions meant that potentially polluting activities could impact on a groundwater source even though the area is outside the normal catchment of that source. In future this

zone will be incorporated into one of the other zones (1, 2 or 3), whichever is appropriate in the particular case.

Map 14: Groundwater Source Protection Zones within Monmouthshire



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Source: NRW Local Evidence Package – Monmouthshire (Accessed 01/10/2018)

3.6 Minerals

3.6.1 Marine Aggregates

Compared with other regions of England and Wales, South Wales ranks third (after South East and London) in terms of the volume of marine sand and gravel landed. The region is dependent to a far greater extent than any other upon marine sources for sand. All of the marine aggregate landed in the South Wales region comprises sand and this fulfils a demand for the fine component in concrete and building sand. There is a shortage of suitable concreting sand from land-based resources. This situation has driven the continuation of aggregate dredging activities and enables large volumes of bulk material to be transported and delivered into coastal ports, very close to the point of end use in most of the main markets. This, together with the high quality and the need for only minimal processing mean that it is particularly energy efficient and an environmentally highly sustainable source of supply, especially when compared to other aggregates. The principle deposits are in the Bristol Channel and Severn Estuary, estimates of the marine aggregate resources of the Severn Estuary / Bristol Channel vary greatly but are considerable. Demand is expected to grow in line with construction trends.

A number of different pre - Carboniferous sandstones exist in Monmouthshire but most are not suitable for aggregates. There are extensive potential resources of river valley sand and gravel deposits along the Usk, but the quality and quantity is unknown in detail. Almost all of this material has low environmental capacity. There are no permitted land-based sand and gravel sites in Monmouthshire, and there is only one marine sand-dredging site at Bedwin sands, which is landed at North Dock in Newport.

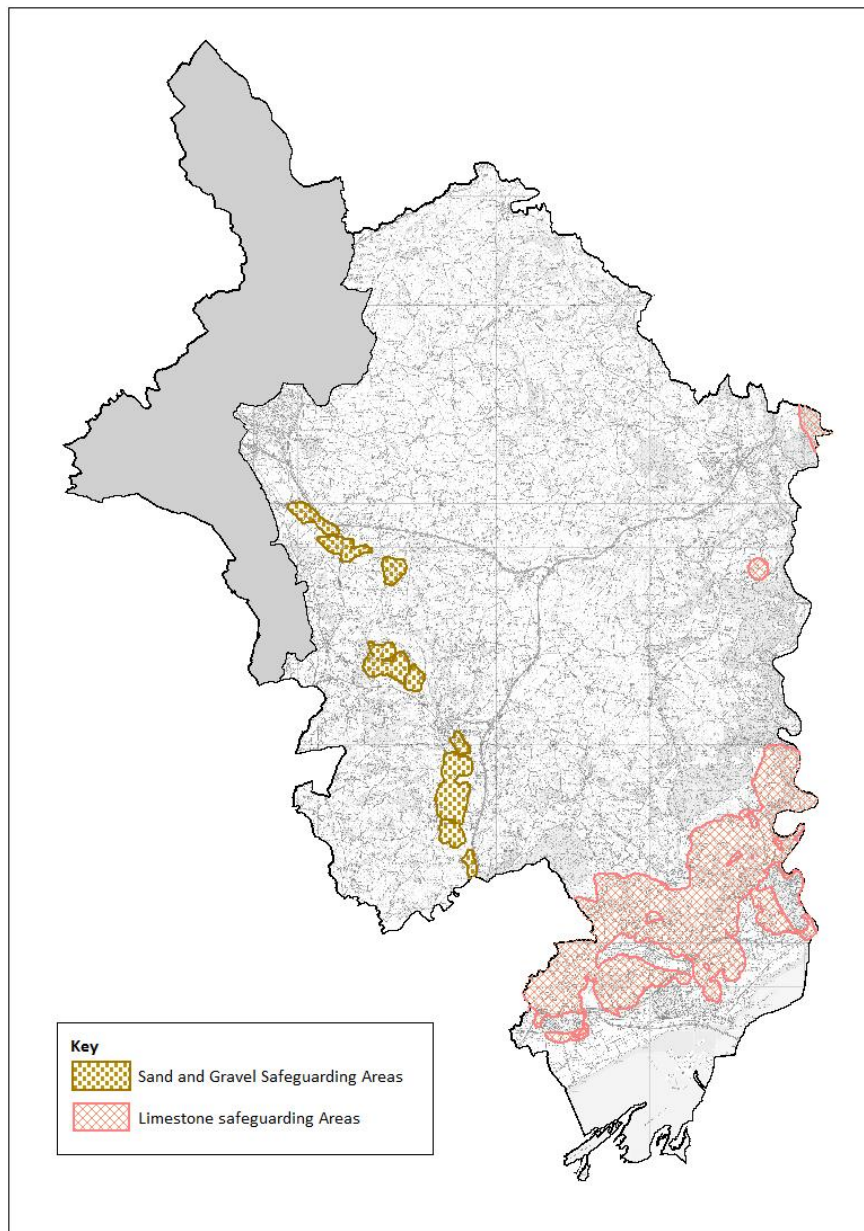
3.6.2 Crushed Rock Aggregates

South Wales is well-endowed with aggregate resources and it has inherited over time a substantial volume of permitted reserves, although the reserves are often variable in terms of quality and location. Most primary aggregate is a finite resource. This is the sector of the minerals industry where there is a greater direct engagement with the planning system and which exhibits the most contentious issues – not only in operational terms, but in respect of transport, exports, specialist requirements and its environmental implications are those most readily apparent to the public. There is one limestone quarry within Monmouthshire, the Ifton Quarry which whilst not currently worked could be worked in the future. Additional limestone resources exist in the southern part of the County, but in general, the area is sensitive in terms of environmental capacity. Furthermore, some parts of the limestone resource lie within the Wye Valley AONB; MTAN1 (paragraph 49) indicates that no allocations should be made in respect of such areas. There are no significant sources of secondary aggregates in the area. Based either on the existing situation or a per capita approach reserves in Monmouthshire exceed a 10 year requirement.

3.6.3 Minerals Safeguarding

Under the Adopted Monmouthshire Local Development Plan Policy M2 Minerals Safeguarding Areas, safeguarding zones are identified for sand and gravel and limestone resources within the County. A substantial part of the south of the County is affected by the limestone safeguarding area. Much of the area is environmentally sensitive, including some of the Wye Valley Area of Outstanding Natural Beauty. The sand and gravel deposits are predominantly located in the Usk Valley. Policy M2 is a general safeguarding policy that proposals in both safeguarding areas – limestone and sand and gravel are expected to comply with. The location of resources are shown on Map 15.

Map 15: Minerals Safeguarding Areas



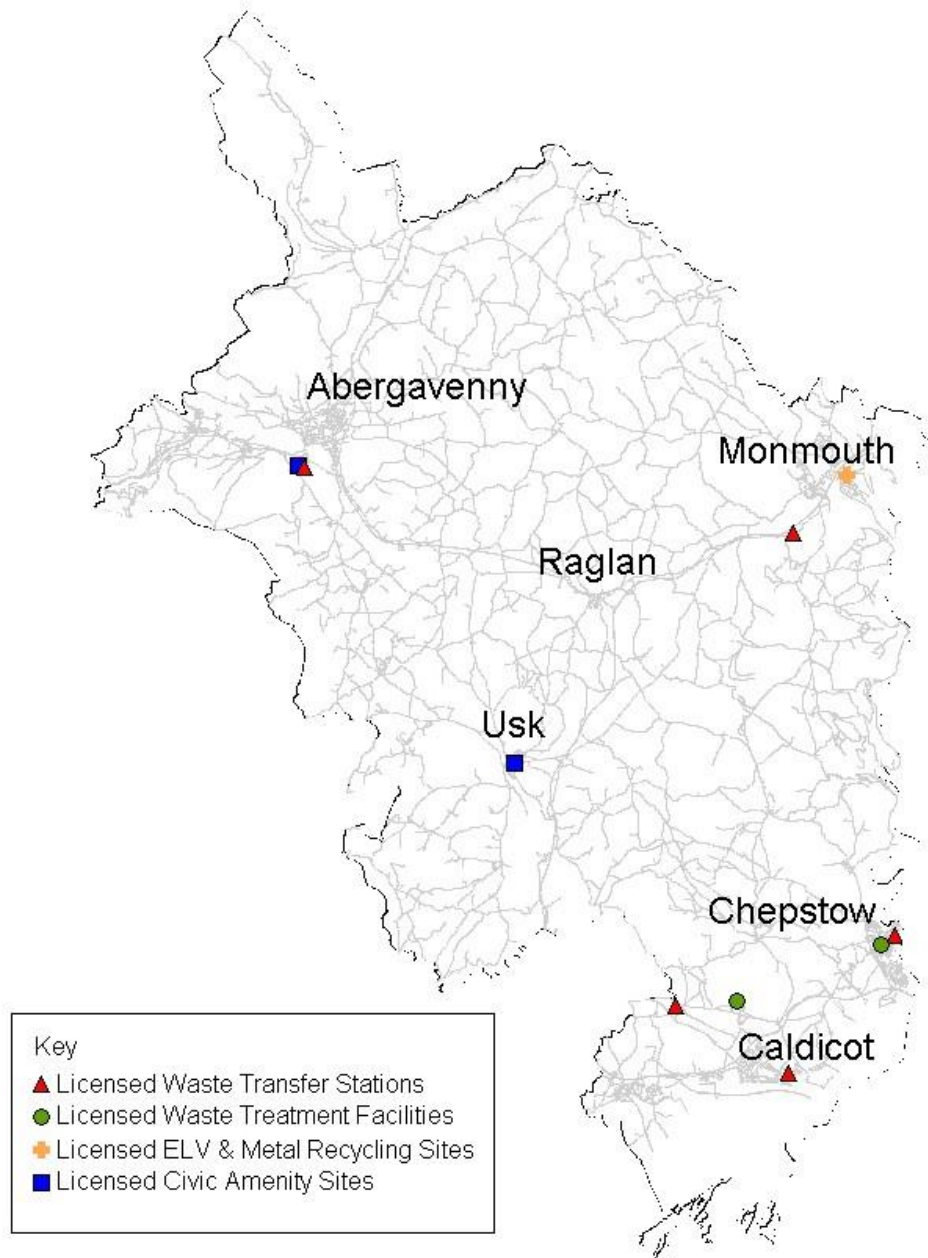
Source: Monmouthshire Local Development Plan

3.7 Waste

3.7.1 Licensed Waste Facilities in Monmouthshire.

There are nine licensed non-landfill sites in Monmouthshire which together have a capacity of more than 221,000 tonnes of waste. The location of these sites is shown in Map 16 below. The council derived residual waste goes to energy from waste.

Map 16: Licensed Non-landfill Waste Facilities in Monmouthshire



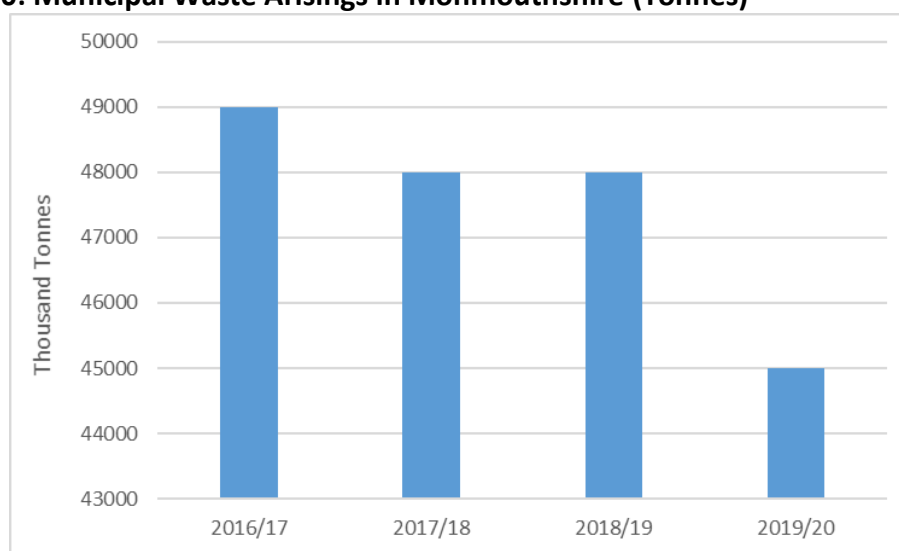
Source: South East Wales Regional Waste Group Draft Annual Monitoring Report 2007

3.7.2 Waste Arisings

The Welsh Government's overarching waste plan 'Towards Zero Waste 2010 - 2050' (TZW) sets targets for the management of waste in Wales. The targets for the disposal and management of municipal waste, include:

- **The total quantity of Local Authority municipal waste arisings**, this indicator does not relate to a specific target in TZW but illustrates progress towards the broad aim of reducing waste arisings.

Chart 20: Municipal Waste Arisings in Monmouthshire (Tonnes)

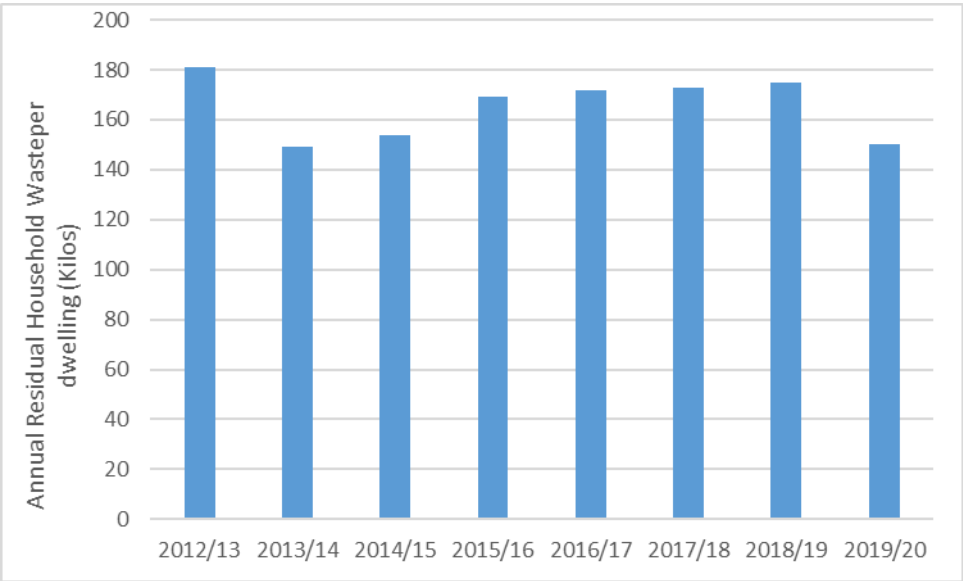


Source: Stats Wales

Municipal waste includes household waste as well as other waste collected by a waste collection authority or its contractors, such as municipal parks and gardens waste, beach cleansing waste and any commercial waste and industrial waste for which the collection authority takes responsibility.

- **The quantity of household waste arisings**, this indicator refers to the total household waste generated. It is a better indicator for describing people's behaviour and their waste generation than local authority municipal waste because it focuses on waste generated by households, whilst local authority municipal waste includes waste from businesses.

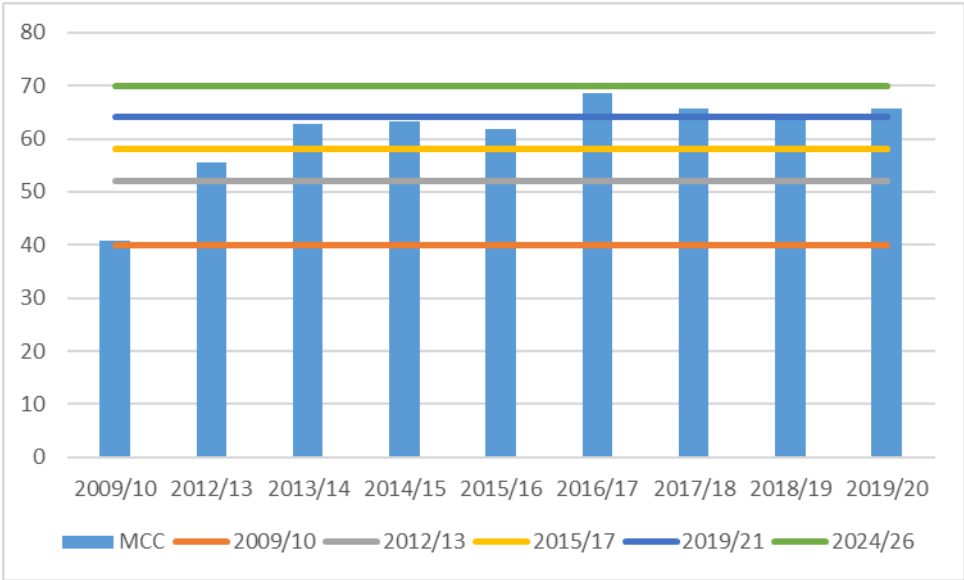
Chart 21: Residual Household Waste produced per dwelling in Monmouthshire (Kilos)



Source: Stats Wales

- Reuse, recycling and composting of Local Authority Municipal Waste.** Increasing the reuse, recycling and composting of waste is a key aim of TZW. This indicator demonstrates the quantity of local authority municipal waste arisings that are reused, recycled or composted.

Chart 22: Reuse, recycling and composting rates of Monmouthshire Municipal Waste against the Targets (%)



Source: Stats Wales

Monmouthshire is making good progress against this indicator. By 2012/13 at least 52% of municipal waste was to be reused, recycled or composted, Monmouthshire

achieved 55.5%. By 2015/16 at least 58% of waste was to be recycled and composted, Monmouthshire achieved 61.9%. Monmouthshire is above the 2019/21 target however has yet to meet the targets set for 2024/26, however the rate in 2016/17 came close.

- **Landfill will be eliminated as far as possible** - to reduce greenhouse gas emissions and make the most of valuable resources, there is a need to eliminate waste from landfill (especially food waste) and manage the emissions from existing landfill sites. Welsh Government has set threshold limits for the amount that Monmouthshire can take to landfill, 29,202 tonnes in 2005/06 reducing annually to 9,500 tonnes in 2020. In 2017/18 Monmouthshire landfilled 188 tonnes and thus are well on the way to eliminating waste to landfill. In 2019/20 this figure had reduced to 102 tonnes.

3.8 WIMD Physical Environment Domain

This includes amongst its indicators air quality, proximity to accessible natural green space, flood risk, and ambient green space score. There are pockets of deprivation in Monmouthshire against this domain. These are predominately in the urban areas.

Table 21: WIMD 2019 – Monmouthshire Physical Environment Domain Summary (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	3	17	24	38

Source: WIMD 2019

According to the Welsh Index of Multiple Deprivation (WIMD) 2019 physical environment domain (Table 21), Monmouthshire had 3 LSOAs in the most deprived 10%. These were Usk 1 (122) West End in Caldicot (160) and Overmonnow 1 (175). Of the 56 LSOAs in Monmouthshire, 28 (67.9%) are in the 50% most deprived LSOAs in his domain.

3.9 Key Issues arising from a review of the Baseline Characteristics

Clean air, water quality and quantity and the protection of biodiversity will have benefits to the economic and social health of the County. The geology of the area not only underpins the county's biodiversity and landscape but also provides important mineral resources. Waste can also be viewed as a resource, both in terms of recycling and re-use for other purposes or as a source of energy. The following are the key issues to arise from a review of the baseline characteristics of the County:

Air

- Whilst air pollution is not a significant problem in Monmouthshire air quality across the County varies with two Air Quality Management Areas in the County at Usk and Chepstow.
- As in the rest of the country carbon emissions are continuing to rise, with emissions from road transport the main contributing factor. There is a need to minimise the emissions of air pollutants.

Biodiversity, Flora & Fauna

- Monmouthshire is a largely rural county and has major biodiversity resources, a number of which are internationally recognised. The Severn Estuary in particular is a RAMSAR site, European Special Protection Area and Special Area of Conservation. The Rivers Usk and Wye are also significant internationally recognised sites, being Special Areas of Conservation as well as Sites of Special Scientific Interest.
- Within the Adopted LDP area there are some 680 Special Areas of Importance for Nature Conservation as well as numerous European protected species. These natural assets need to be conserved, enhanced and protected from the potential effects of new development.
- There is a need to safeguard and enhance the green infrastructure in the LDP area and the connectivity of the local environment.

Water

- Water quality and quantity are generally good in Monmouthshire although there are ground water protection zones that need to be safeguarded from pollution and one of the smaller water bodies in the County, the Nedern Brook, is classified as 'poor quality' under the EU Water Framework. There is a need to protect and enhance the quality of water sources, this extends to the protection of cross boundary water courses.

Soil

- Monmouthshire has a high percentage of agricultural land that is best and most versatile (i.e. Grade 3a and above) (69%). There is a need to safeguard these important soil resources, whilst at the same time recognising that there are limited opportunities for brownfield development in the County.
- The average percentage of housing completions on brownfield land has been around 50% over the past 10 years and whilst there is a limited supply of brownfield land in the County there is a need to prioritise development on previously developed land and maximise the efficient use of the land that is available.

Minerals and Waste

- Monmouthshire has made good progress in the promotion of the recycling and composting of waste, and the elimination of waste to landfill. Monmouthshire also has to make an appropriate contribution to the regional requirement for waste management.
- Minerals extraction plays a limited role in Monmouthshire's economy but there is a need to safeguard the County's resources in order to make an appropriate

contribution to the sustainable supply of aggregates to the South Wales economy as a whole.

4. A Healthier Wales

4.1 Introduction

This section provides data relating to the following well-being goal:

‘A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.’

The data relates primarily to:

- Human Health; and
- Access to Services and Well-Being.

4.2 Access to Services.

The WIMD 2019 geographical access to services domain captures deprivation as a result of households inability to access services necessary for day to day living both physically and online. Both tangible (inaccessibility to a supermarket) and social deprivation (isolation from community activities) are considered. Specifically, the domain measures travel times to 8 different services using public transport and 9 using private transport. Of the 56 LSOAs in Monmouthshire, 37 fall within the 50% most deprived with 29 in the 30% most deprived and 15 in the 10% most deprived.

Table 23: WIMD 2019 – Monmouthshire Access to Services Domain Summary (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	15	22	29	37

Source: WIMD 2019

Of the 1909 LSOAs in Wales, the lowest ranks recorded in Monmouthshire were in Llantillio Croesenny (6), Crucorney (49), Llanover 1 (61), Trellech United 1 (79) and Llanover 2 (80).

4.3 Community Facilities & Recreation

Monmouthshire is a rural County with the three market towns of Abergavenny, Monmouth and Chepstow, the towns of Usk and Caldicot and a number of larger villages as well as smaller settlements. Therefore, the majority of its residents can gain access to the countryside, although the quality of this access may differ. The landscape and countryside of the County is one of its key assets and brings valuable visitors and tourism activity to the area.

There are four leisure centres in Monmouthshire all with a variety of facilities including swimming pools, fitness suites, indoor sports halls and outdoor pitches.

- Abergavenny Leisure Centre
- Caldicot Leisure Centre
- Chepstow Leisure Centre
- Monmouth Leisure Centre

The Council also owns and manages a number of parks and open spaces.

Abergavenny

Belgrave Park
Bailey Park
Swan Meadows
Linda Vista Gardens
Penyfal
Larchfield
Holywell Road
Croesonen Gardens
Glan Gavenny
Waterside
Ross Road
Underhill playing fields
Underhill Crescent
Delafield Road
Ysbytty Open Space

Llanfoist

St Faiths Close
Thomas Hill Close
Woodland Crescent

Llanover

Open space

Goytre

Park
Highfield open space
Frondeg open space

Little Mill

Melyn Bach open space
Cae melin open space

Raglan

Prince Charles Road
Ethley Drive
Caestory

Monmouth

Chippenham Mead
Clay Patch
Millennium Field
Vauxhall Fields
Overmonnow
Clawdd Du
Kings Fee
Hendre Close
Rockfield Estate Open Spaces/Wildlife corridors
Riverside/Rowing Club
Westfield Road

Wyesham

Claypatch
Tudor Road
Wyesham Road
Woodland view

Trellech

Recreation ground

Llandogo

Recreation ground

Rogiet

Chestnut Drive open spaces
Station Road open spaces
Starling Close open spaces
Buzzard Close
Merlin Close
Barn Owl way

Usk

Old Cattle Market Field
Llanbadoc Island
Conigar Walk

Sunny Vale

Chepstow

Bulwark Park

Castle Dell

Riverside

The Danes

Bayfield open spaces

Penterry Park open spaces

St Lawrence open spaces

Meadow Walk

Portwall

Garden City

Larkfield Park

Fair View

Bulwark playing field

Raglan Way

Bishops Close

Thornwell Playing Field/open space

River side

Mathern

Playing fields

Portskewett/Sudbrook

Hill Barn Way

Playing Field

Sudbrook play area/open space

Magor/Undy

Mill Common

Mill Reen

Rockfield Estate open spaces

St Annes Crescent

Manor Chase

Badgers walk

Castle Oak

Burrium Gate open spaces

Ty Brith Gardens

Caldicot

Railway View

Orchid Drive

Caldicot Castle Football pitch

Heol Tefi Open spaces

Heol Towy Open spaces

Heol Sirhowy Open spaces

Clos Llynfi

Spine Footpath

Wentwood view Open spaces

Spine footpath and Cas Troggy Open spaces

Ash Grove

Willow Close

Birbeck Park

Longfellow Road open spaces

Station Road open spaces

Durand Road

Cob Crescent

Stafford Road

Plover Crescent

Osprey Drive

Meadow Rise open spaces

Sycamore Terrace

Magor Playing fields

Blenheim Ave Open spaces

Kensington Park open spaces

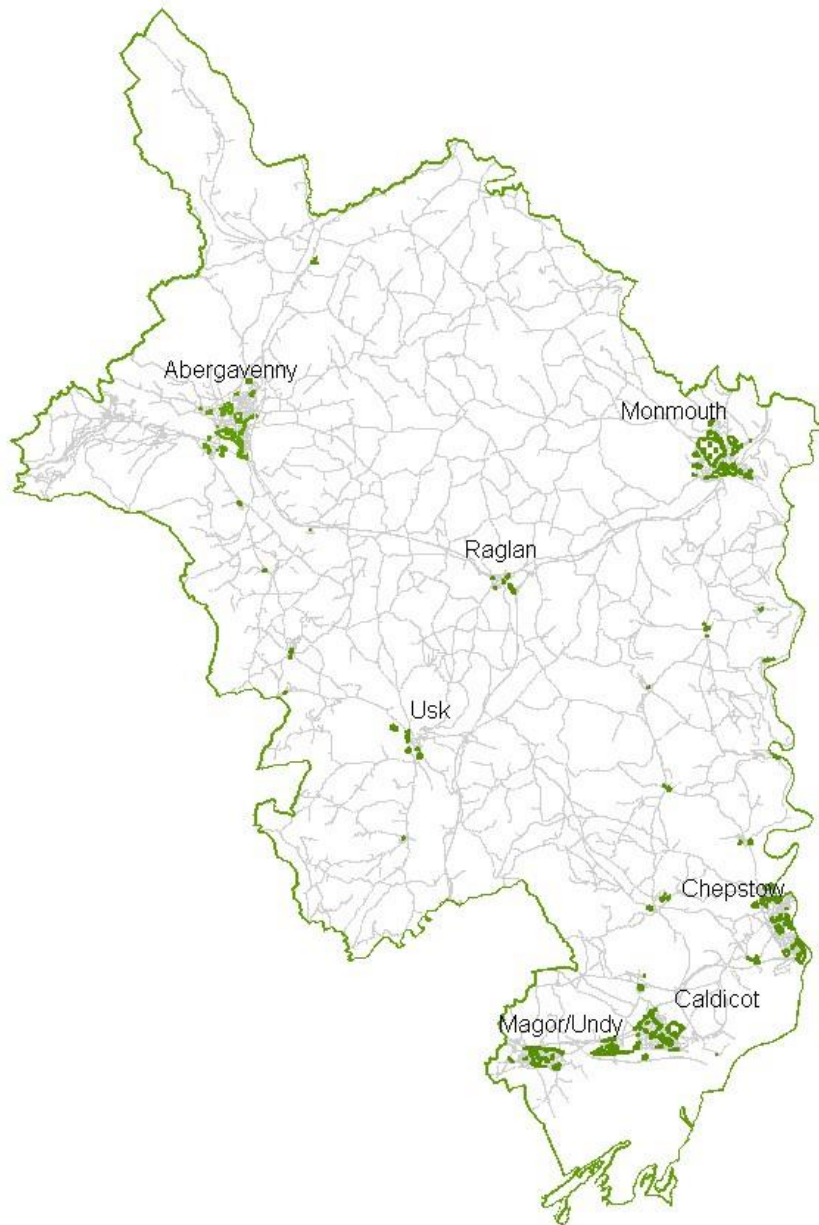
Queens Gardens

4.3.1 Areas of Amenity Importance

Within the Local Development Plan under Policy DES2, areas of amenity importance have been designated. The total area of these amount to 425.6 hectares of land within the County's settlements and their distribution is shown in Map 17. The primary purpose of their designation is to protect and, where possible, improve the built environment by retaining the overall amenity value of the existing stock of green

space. As such these areas include the above parks but in addition will cover general areas of open space. They will not necessarily include all play areas within the County.

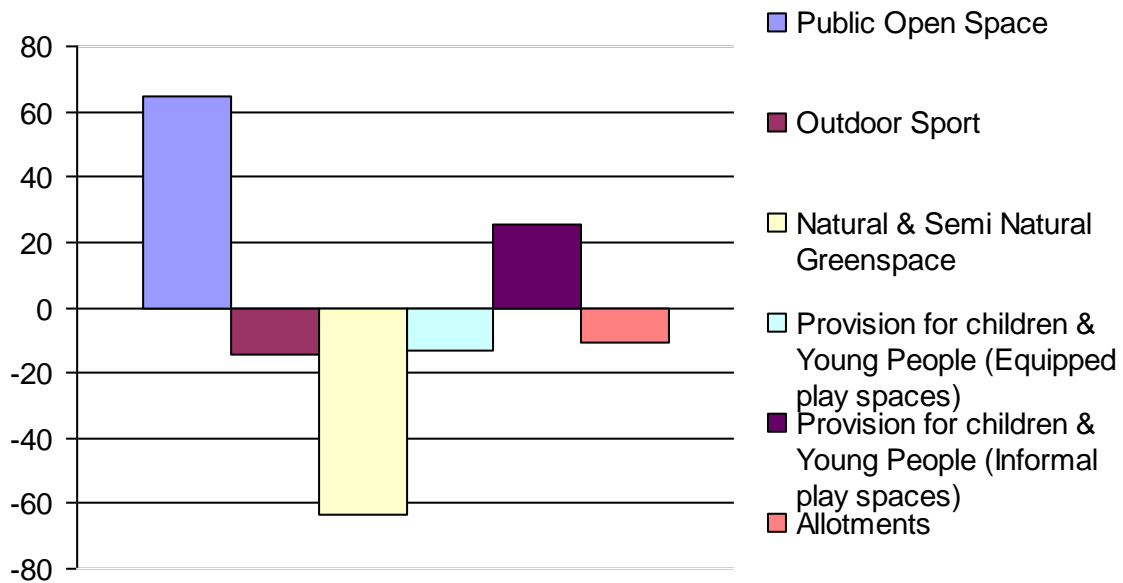
Map 17: Distribution of areas of amenity open space



Source: Monmouthshire Local Development Plan

The quality, quantity and access to all of the above facilities were assessed through an outdoor recreation and public open space survey undertaken by consultants on the Council's behalf and published in December 2008. The report set out in full the provision of open space in the main settlements in terms of both quantity and quality. Whilst no full update of this work has been undertaken it is expected that the figures will not have altered substantially since the survey was undertaken.

Chart 23: Deficiency/surplus of provision against the standards in the main settlements and villages surveyed



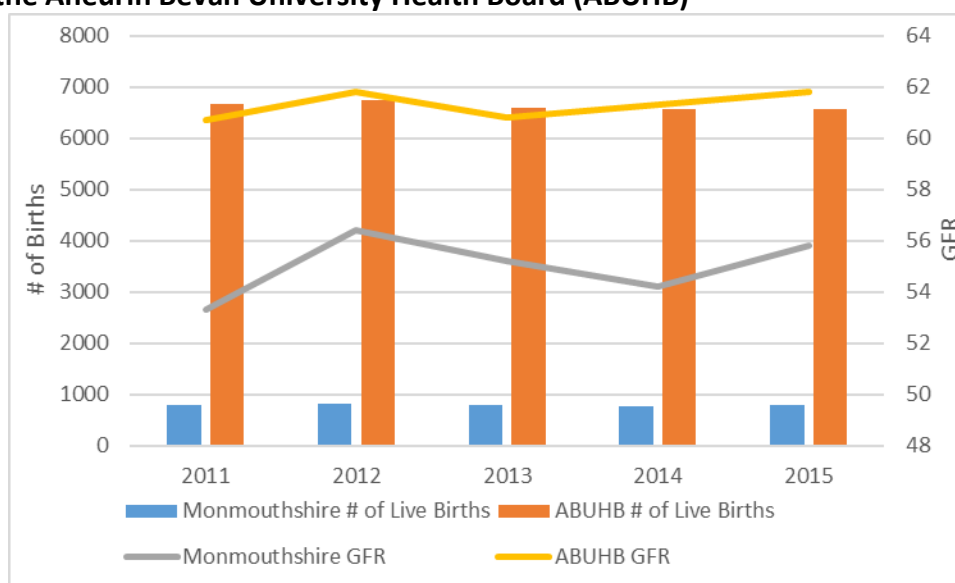
The survey found that the County's main settlements were generally well served by both public open space and informal play spaces, whilst there were deficiencies in other provision. However, this masked variations in provision between the settlements.

4.4 Human Health

4.4.1 Birth and Death Rates

In 2019, there were 683 live births, and 2 still births in Monmouthshire. The General Fertility Rate (GFR), the number of live births per 1000 women aged 15 to 44 was 49.4 compared to 53.3 for Wales. Chart 24 includes data available for up to 2015. It indicates that despite fluctuation, the general fertility rate in Monmouthshire has risen since 2011, reflecting a wider trend in the Aneurin Bevan University Health Board (ABUHB) area. However, in 2015 the GFR was 55.8 for Monmouthshire and 61.8 for the ABUHB area. As per the ONS Birth Characteristic data this had dropped to 49.4 for Monmouthshire in 2019 when the average fertility rate for authorities within the ABUHB area was 57.3 at the same time.

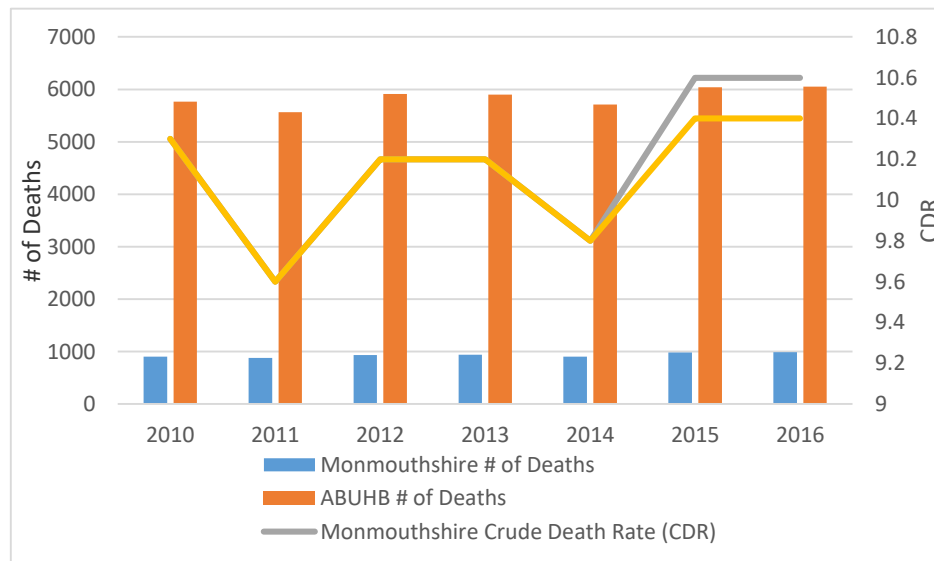
Chart 24: Number of Live Births and General Fertility Rate (GFR) in Monmouthshire and the Aneurin Bevan University Health Board (ABUHB)



Source: StatsWales - (Accessed 01/08/2018)

In 2019, there were 990 registered deaths in Monmouthshire, 476 males and 514 females. Monmouthshire accounted for 3% of all deaths in Wales in 2019 and had the fifth lowest number of registered deaths in all local authorities in Wales in 2019. The age standardised mortality rate (ASMR) in Monmouthshire in 2019 was 807.4 per 100,000 population. The ASMR in Wales in 2019 was 1000.1 and it was 1015.1 in the ABUHB area (Source: ONS). The ASMR are expressed per 100,000 population and allow comparisons between populations. Chart 25 includes data available up to 2016 and indicates that the number of deaths has remained relatively similar in Monmouthshire with more fluctuation in the wider health board area since 2010. However, in both 2015 and 2016, the crude death rate in Monmouthshire was 0.2 higher than in the Aneurin Bevan University Health Board Area, however both areas have seen an increase in the crude death rate since 2014. In 2016, there were 986 registered deaths in Monmouthshire and 6,054 in the ABUHB area. In 2019 there were 990 registered deaths in Monmouthshire and 6,045 in the ABUHB area, demonstrating relative stability over the 3-year period.

Chart 25: Number of Deaths and Crude Death Rate (CDR) in Monmouthshire and the Aneurin Bevan University Health Board (ABUHB)



Source: ONS - (Accessed 01/08/2018)

4.4.2 Teenage Conceptions

Table 24 shows the teenage conception rate per 1000 women in those aged 13-15 in Monmouthshire compared with the ABUHB area and Wales. The data is an estimate and is based on live and still births as well as terminations by legal abortion. The data below indicates that Monmouthshire has a lower teenage conception rate than the wider health board in all but one year (2016) when it also had a higher rate than Wales. The rate has fallen across all areas since 2010 and especially so in Wales.

Table 24: Teenage (Aged 16 and Under) Conception Rate (Per 1000)

Year	Monmouthshire	ABUHB	Wales
2010	4.0	7.1	7.7
2012	No data	5.8	5.6
2014	2.4	5.8	4.9
2016	4.0	3.5	3.6
2018	2.0	3.7	3.0

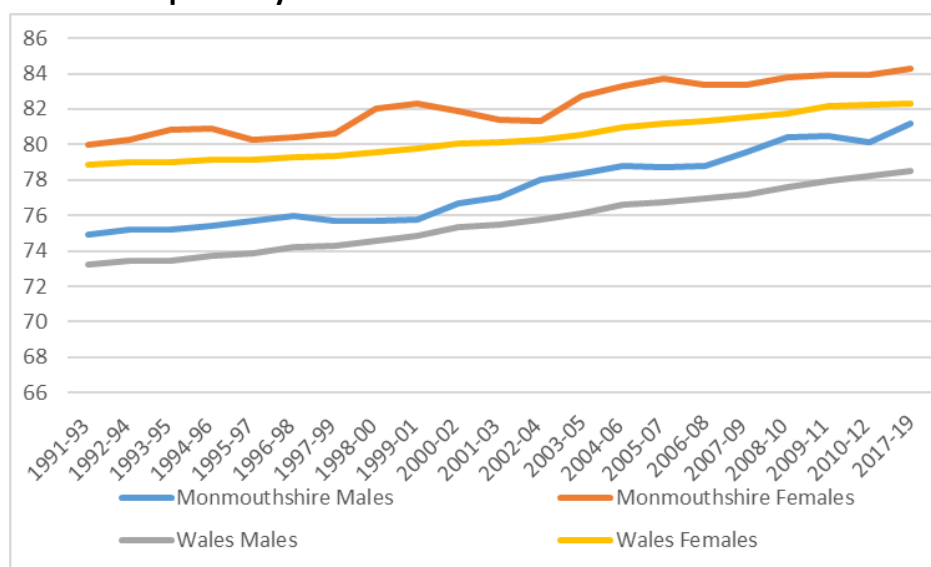
Source: ONS Conception Statistics - (Accessed 20/05/2021)

4.4.3 Life Expectancy

Estimated life expectancy at birth in Monmouthshire in 2017/19 was 81.2 years for males and 84.3 years for females (ONS) (Chart 26). In Wales the life expectancy at birth for males was 78.5 and 82.3 for females for the same period. In 2010/12, the estimated life expectancy for males in Wales was 78.2 compared to 80.1 for

Monmouthshire and 82.2 for females in Wales compared to 83.9 for Monmouthshire. Over the past decade life expectancy in both Monmouthshire and Wales has been steadily increasing. In 2017/19, life expectancy in Monmouthshire was 2.7 years higher for males and 2 years for females, than in Wales.

Chart 26: Life expectancy at birth



Source: StatsWales and ONS (Accessed 30/04/2021)

4.4.4 General Health

At the time of the 2011 Census 46.4% of Monmouthshire residents felt that they were in 'very good health' (Wales 46.6%), whilst 4.6% felt that they were in 'bad health' (Wales 5.8%). At the same time 20.1% of residents recorded themselves as suffering from a limiting long term illness (Wales 22.7%). (Table 24). In 2016, 10% of Monmouthshire's working age population were key benefit claimants compared to 14.4% in Wales. At the same time 0.8% of Monmouthshire's working age population were claiming disability benefits, versus 0.7% in Wales.

Table 24: Self-Assessment of General Health

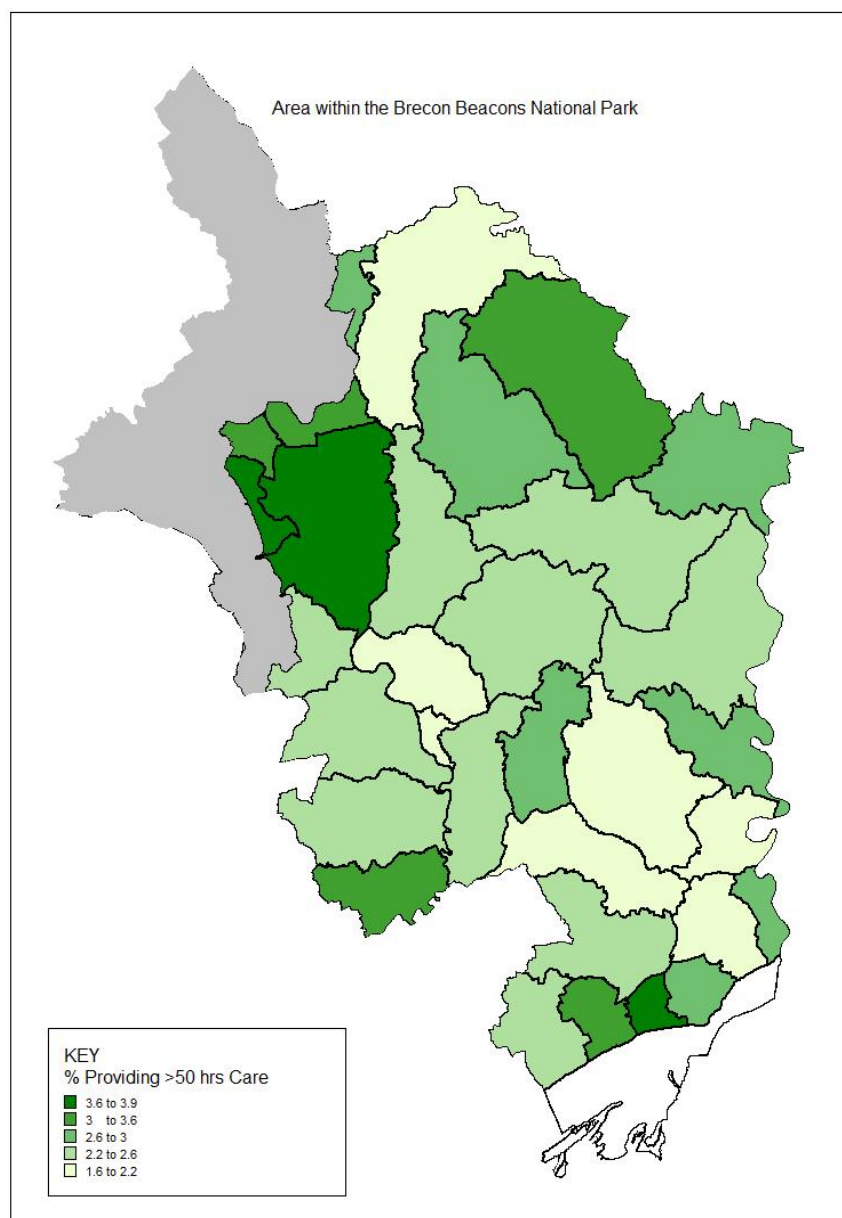
General Health	Monmouthshire (%)	Wales (%)
'Very Good Health'	46.4	46.6
'Good Health'	33.7	31.1
'Fair Health'	14	14.6
'Bad Health'	4.6	5.8
'Very Bad Health'	1.4	1.8
Limiting Long Term Health Problem or Disability	20.1	22.7

Source: ONS Census 2011 - (Accessed 02/08/2018)

In 2011, 12.6% of the resident population were providing care with 2.8% of these providing upwards of 50 hours of care or more. At the same time, the town and community councils with the largest proportion of unpaid care providers were

Llanover with 17.3%, Llangattock Vibon Abel with 15.8% and Mitchel Troy with 15.4%. Map 18 shows the proportion of the population who provide in excess of 50 hours a week of care by town and community councils in Monmouthshire. The town and community councils with the highest proportions were Llanfoist Fawr with 3.9%, Caldicot with 3.7% and Llanover with 3.6%.

Map 18: % Providing in Excess of 50hrs a week of Unpaid Care



Source: ONS 2011 Census

4.4.5 Lifestyles

The National Survey for Wales 2018/19 and 2019/20 records data on lifestyle and behavioural choices for adults. Indicators such as the prevalence of smoking and obesity in Monmouthshire are compared with those for the wider health board area and Wales as a whole, in table 26 below. Table 26 illustrates the 2018/19 and 2019/20 data combined in line with the data available on StatsWales. Monmouthshire has a lower proportion of smokers than the wider health board area, but that is consistent with Wales as a whole. The proportion of e-cigarette users and those who are overweight and/or obese is however lower in Monmouthshire than the health board area and Wales as a whole. However, Monmouthshire has a higher percentage (20%) of those who consume more than 14 units of alcohol on a weekly basis, which was higher by 3% and 1% than in the Aneurin Bevan Health Board area and Wales respectively. The 2018/19 National Survey for Wales used the 'Warwick Edinburgh Mental Wellbeing Scale (WEMWBS)' to determine the mental health of respondents. An overall score is calculated where the maximum is 70 and the minimum 14, and where the higher the score means a better mental well-being. Monmouthshire respondents scored 51.7 as opposed to 50.5 for the wider health board and 51.4 for Wales. The highest score was recorded for Flintshire (53.5), where the lowest was 48.9 in Blaenau Gwent, Monmouthshire had the 8th highest score amongst Welsh authorities.

Table 26: Health-Related Lifestyle 2018/19 and 2019/20*

	Monmouthshire %	Aneurin Bevan Health Board %	Wales %
Smoker	17	18	17
E-Cigarette User	4	7	6
Weekly Alcohol Consumption >14 Units	20	17	19
Ate 5 Portions of Fruit & Vegetables	32	20	24
Active <30 Minutes a Week	27	31	33
Overweight or Obese	56	65	60
Obese	23	29	24

Source: National Survey for Wales (Accessed 30/04/2021)

*Table 26 illustrates the 2018/19 and 2019/20 data combined

4.4.6 Health Infrastructure

Monmouthshire has one main hospital, Nevill Hall Hospital in Abergavenny which opened in 1970, the hospital has an established A&E department. This is supported by a number of community hospitals in Chepstow, Monnow Vale in Monmouth and Maindiff Court in Abergavenny. There are 17 GP practices and 13 dental practices in Monmouthshire.

4.4.7 WIMD Health Domain

The 2019 WIMD health domain highlights deprivation relating to the lack of good health. There are 7 indicators within the domain. These include; GP recorded chronic conditions (rate per 100), limiting long-term illness (rate per 100), premature deaths(rate per 100,000), GP-recorded mental health conditions (rate per 100), cancer incidence (rate per 100,000), low birth weight (percentage of live single births that weigh less than 2.5kg) and children aged 4-5 who are obese (percentage). In Monmouthshire, there are 11 LSOAs in the 50% most deprived 4 in the 30% most deprived and 2 LSOAs in the 20% most deprived.

Table 27: WIMD 2019 – Monmouthshire Health Domain Summary (Number)

Total LSOAs	Most deprived 10% LSOAs in Wales (ranks 1-191)	Most deprived 20% LSOAs in Wales (ranks 1-382)	Most deprived 30% LSOAs in Wales (ranks 1-573)	Most deprived 50% LSOAs in Wales (ranks 1-955)
56	0	2	4	11

Source: WIMD 2019

The LSOAs with the lowest ranks in Monmouthshire were Thornwell 1 in Chepstow (252), Cantref 2 in Abergavenny (292) and Dewstow and Green Lane 2 (401).

4.5 Key Issues arising from a review of the Baseline Health Characteristics

Better health is central to well-being and also makes an important contribution to economic progress as healthy populations live longer and are more productive. The health and well-being of the population is important in helping to enable people to achieve their potential and to make Monmouthshire a more equal society. The following are the key issues to arise from a review of the baseline characteristics of the County:

- Monmouthshire generally performs well on indicators relating to such issues as deprivation, health and crime, although there are pockets of deprivation within the County.
- There is a need to address rural isolation as an ageing population and poor access to community facilities and declining local service provision is a particular issue for rural communities.
- Most of Monmouthshire's residents have good access to the countryside, which can have positive effects on health and wellbeing. There is a need to protect and enhance this access to high quality open space.
- Whilst Monmouthshire's residents have good access to public open space a recreation and open space survey established a deficiency of more formalised provision in many of the County's communities of outdoor sport, equipped children's play and allotments.

5. A More Equal Wales

5.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘A society that enables people to fulfil their potential no matter what their background or circumstances.’

The data primarily relates to:

- Population

5.2 Population

5.2.1 Total Population and trends

The resident population of Monmouthshire at the time of the 2011 census was 91,323, this represented an increase of 7.6% over the level recorded at the time of the 2001 census. This compares to an increase of 5.5% for Wales as a whole.

The ONS midyear estimates (MYE) for 2019 suggest that the population of Monmouthshire is now more likely to be 94,590, and the Welsh population 3,152,879. This would mean a 3.6% and 2.9% rise in Monmouthshire and Wales respectively since the 2011 Census.

When looking at the population growth in between the 2001 and 2011 Census in terms of the individual town and community councils within the County it can be seen that inter census growth was not experienced across all areas. Table 28 shows that the main towns which experienced the most growth during this period were; Monmouth and Chepstow. Usk as a Rural Secondary Settlement also experienced high levels of growth. Other community council areas who experienced higher growth include; Llantrisant, Tintern, Grosmont and Shirenewton.

Table 28: Resident Population Monmouthshire Towns and Community Councils 2001 and 2011

Town/Ward	Total Population		
	2001	2011	% Change
Abergavenny	9,599	10,078	5.0
Caerwent	1,721	1,791	11.9
Caldicot	9,697	9,604	-1.0
Chepstow	10,821	12,350	14.1
Crucorney	1,161	1,201	3.5
Devauden	961	1,040	8.2
Goetre Fawr	2,332	2,393	2.6
Grosmont	770	920	19.5
Gwehelog Fawr	467	493	5.6
Llanarth	841	892	6.1

Llanbadoc	886	806	-9.0
Llanelly Hill	3,812	3,899	2.3
Llanfoist Fawr	3,025	3,315	9.6
Llangattock Vibon Avel	945	1,024	8.4
Llangwm	391	440	12.5
Llangybi	861	890	3.4
Llanhennock	473	496	4.9
Llanover	1,368	1,392	1.8
Llantilio Crossenny	666	731	9.8
Llantilio Pertholey	3,960	3,906	-1.4
Llantrisant	362	475	31.2
Magor with Undy	6,067	6,140	1.2
Mathern	988	1,056	6.9
Mitchel Troy	1,158	1,253	8.2
Monmouth	8,877	10,508	18.4
Portskewett	2,061	2,133	3.5
Raglan	1,691	1,928	14.0
Rogiet	1,613	1,813	12.4
Shirenewton	1,004	1,145	14.0
St. Arvans	703	765	8.8
Tintern	684	853	24.7
Trellech	2,432	2,759	13.4
Usk	2,321	2,834	22.1

Source: ONS Census

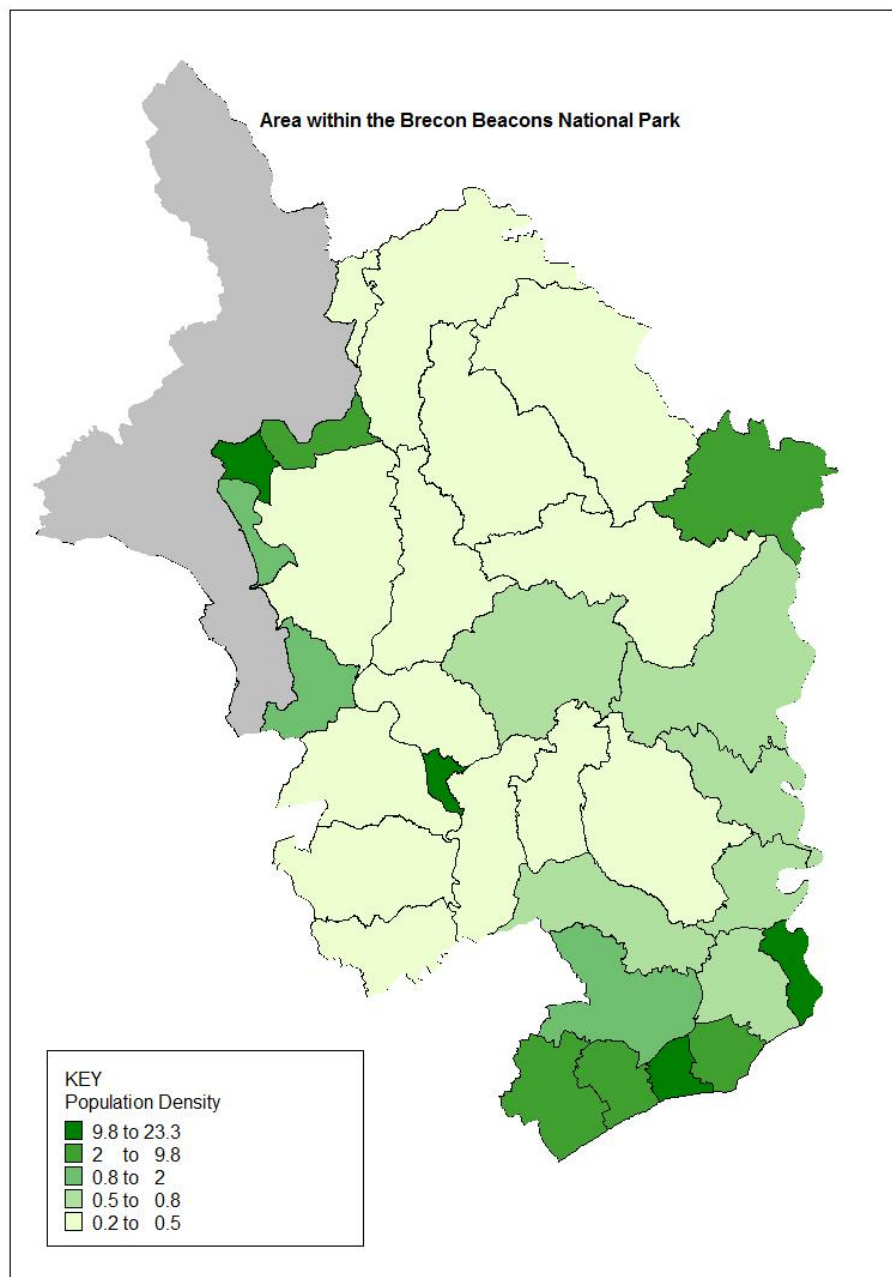


Towns and Community Councils who experienced a higher rate of growth than Monmouthshire as a whole

5.2.2 Population Distribution

Monmouthshire has a population density of 1.1 person per hectare, which is lower than the Welsh average of 1.5 persons per hectare and significantly lower than the South East Wales average of 7.36 persons per hectare. This reflects the County's rural nature. The relative densities of population by community and town council area are shown in Map 19. Population densities are, as would be expected, highest in the towns. The majority of rural wards have low population densities when compared to national averages. Southern rural wards along the M4 corridor have slightly higher densities than rural wards in other parts of the County.

Map 19: Population density per hectare (by Town and Community Council Area)



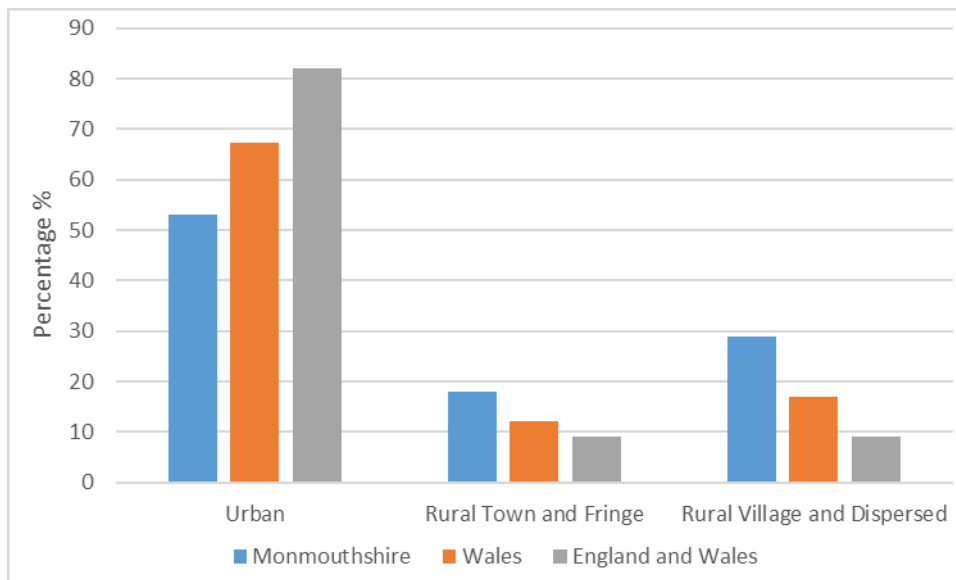
Source: ONS 2011 Census

The population density of the Monmouth Town area is noticeably lower at 3.8pph, than other main settlements within Monmouthshire such as Abergavenny Town (9.8pph), and Chepstow Town (23.2pph). As map 19 indicates, the Council areas of both Chepstow and Abergavenny Town are noticeably smaller, where Monmouth Town Council area, incorporates a relatively wide rural hinterland. The more rural nature of this hinterland is reflected in the population density of the Monmouth Town Council area.

The relatively rural nature of Monmouthshire is further emphasised by work carried out by ONS on the Urban-Rural Classification of wards at the time of the

2011 Census. The classification was based on the relative residential densities recorded within a one hectare grid. Residential densities were also recorded at specified distances from the centre of the grid in order to take into account the particular environs of settlements. In Chart 27 it can be seen that whilst the majority of the population live in more urban areas, this is lower than in both Wales and England and Wales. Equally there is a larger proportion of those living in rural towns or villages than in both Wales and England and Wales.

Chart 27: Urban-Rural distribution of population

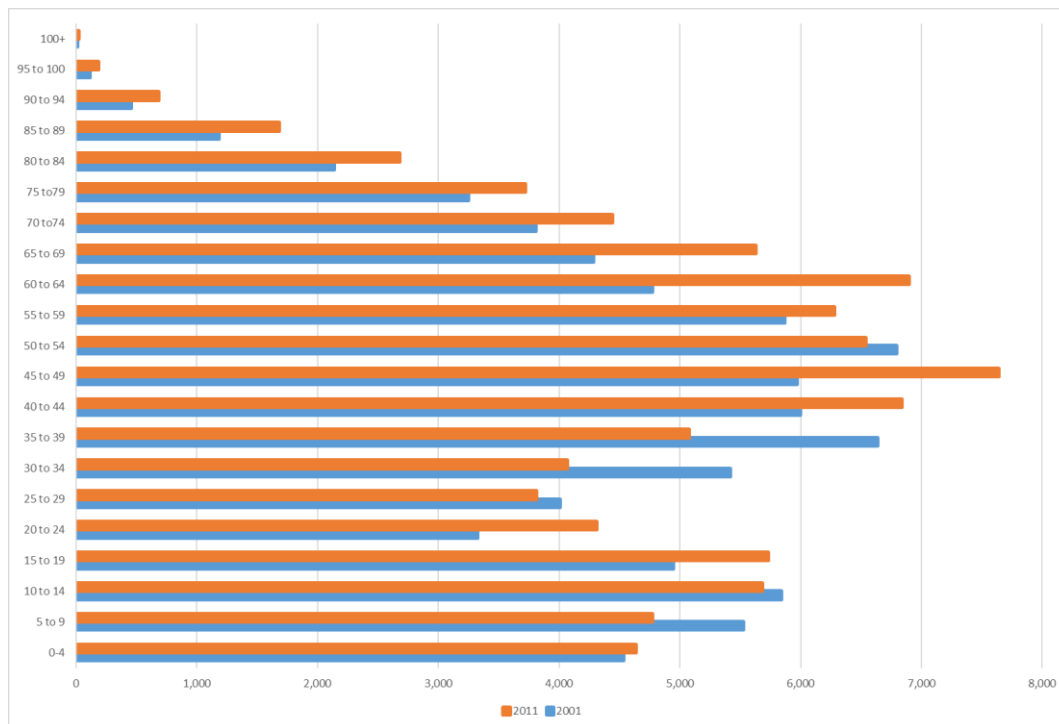


Source: ONS 2011 Census Urban-Rural Classification

5.2.3 Age Structure

From the graph in Chart 28 it can be seen that the age structure of Monmouthshire in 2011 has some significant differences to that in 2001. The 2011 Census recorded that those aged 20-29 represented 8.9% of the population of Monmouthshire, compared to 13% in Wales. The ONS MYE for 2019 suggest that, those aged 20-29 now represent 9.4% of the population in Monmouthshire compared to 13% in Wales. Monmouthshire also has significantly more people in the 60+ age groups. In 2001, those aged 60+ represented 23.6% of the population of Monmouthshire compared to 22.7% for Wales. The 2011 Census recorded that 28.4% of the population in Monmouthshire were 60+, versus 25% in Wales. The 2019 ONS MYE suggest that those aged 60+ are now more likely to represent 32.1% of the population of Monmouthshire, compared to 27.1% in Wales. Since the 2001 Census, the number of those aged 60+ in Monmouthshire has increased 51.8% to 2019 versus a 30% increase in Wales as a whole.

Chart 28: Age structure of the population 2001 compared to 2011



Source: 2001/2011 Census

Data available on the median age of the population also demonstrates a similar trend (Table 29) and shows that the population is ageing. In 2005 the median age in Monmouthshire was 43.1 compared to 40.3 in Wales. In 2019, the median age in the County was 49.0 compared to 42.5 in Wales.

Table 29: Median Age in Monmouthshire compared with Wales.

	2005	2007	2009	2011	2013	2015	2017	2019
Monmouthshire	43.1	43.8	44.7	45.6	46.6	47.5	48.3	49.0
Wales	40.3	40.7	41.1	41.5	41.9	42.3	42.5	42.5

Source: ONS - (Accessed 11/05/2021)

The latest Welsh Government population projections (2018) show a demographic profile in Monmouthshire that, if current trends continue, will have a greater proportion of the population aged 65 and over by 2043 (32.6%) with the sharpest decline in the working age population. This compares to a Welsh proportion of 25.7%.

5.2.4 Migration

Migration data indicates a net migration inflow to Monmouthshire from the rest of the UK in 2018-2019 of nearly 680 people. Overall net migration to the County has fluctuated in recent years, between 2001 and 2005 net migration averaged nearly 690 persons per annum, this decreased to just under 250 persons per annum between

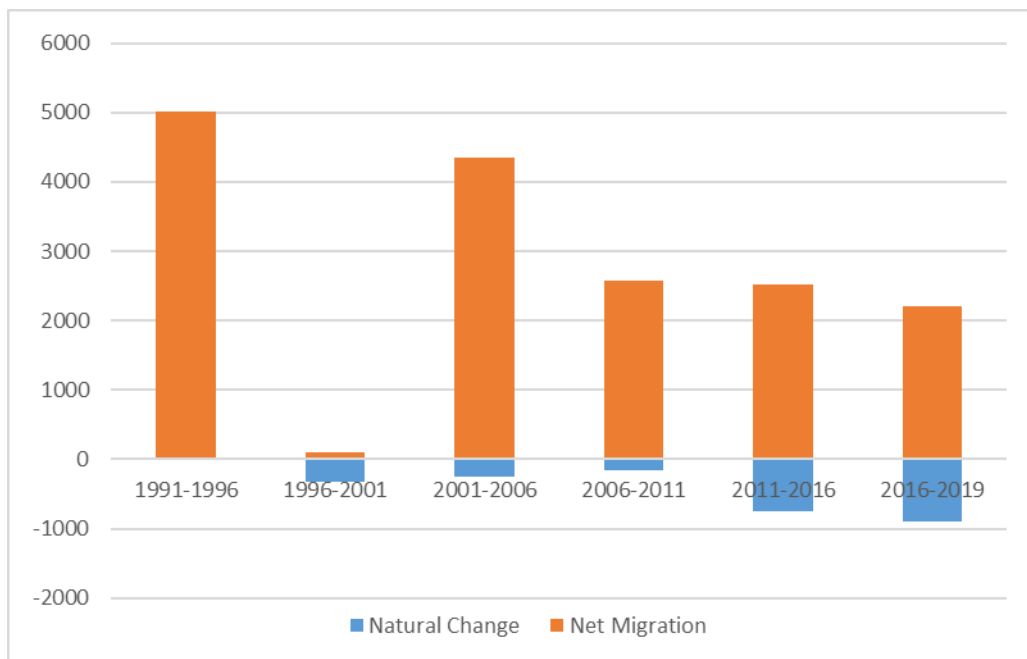
2005 and 2010. However, between 2011 and 2016 the average increased to 418. In the period since 2016, net migration has averaged 663 people. The most notable trend is the consistent negative net migration of those aged 15-29 which averaged over 320 persons per annum over the period 2011 to 2016 and rose to a high in the period in 2015/16, reaching 390. In the period since 2016, negative net migration of those aged 15-29 has averaged over 260.

Table 30: Migration patterns by age

	2011/2012			2012/2013			2013/2014			2014/2015		
	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net
All Ages	4290	3910	280	4400	3820	580	4530	4110	420	4410	4050	360
0-14	710	520	190	730	500	230	680	520	160	680	480	200
15-29	1300	1580	- 280	1310	1640	- 330	1310	1580	- 270	1330	1680	- 350
30-44	980	860	120	1060	730	330	1080	820	260	1030	770	260
45-64	860	600	160	880	630	250	970	750	220	900	730	170
65+	440	350	90	420	320	100	490	440	50	470	390	80
	2015/2016			2016/2017			2017/2018			2018/2019		
	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net	W Inflo	ow Outfl	Net
All Ages	4540	4090	450	4728	4165	563	4998	4251	747	5017	4338	679
0-14	700	470	230	645	444	201	754	392	362	670	516	154
15-29	1310	1700	- 390	1437	1687	- 250	1430	1810	- 380	1581	1744	- 163
30-44	1060	750	310	1122	812	310	1185	792	393	1211	919	292
45-64	960	740	220	977	784	193	1077	787	290	1049	720	329
65+	510	430	80	547	438	109	552	470	82	506	439	67

Source: StatsWales (Accessed 11/05/2021)

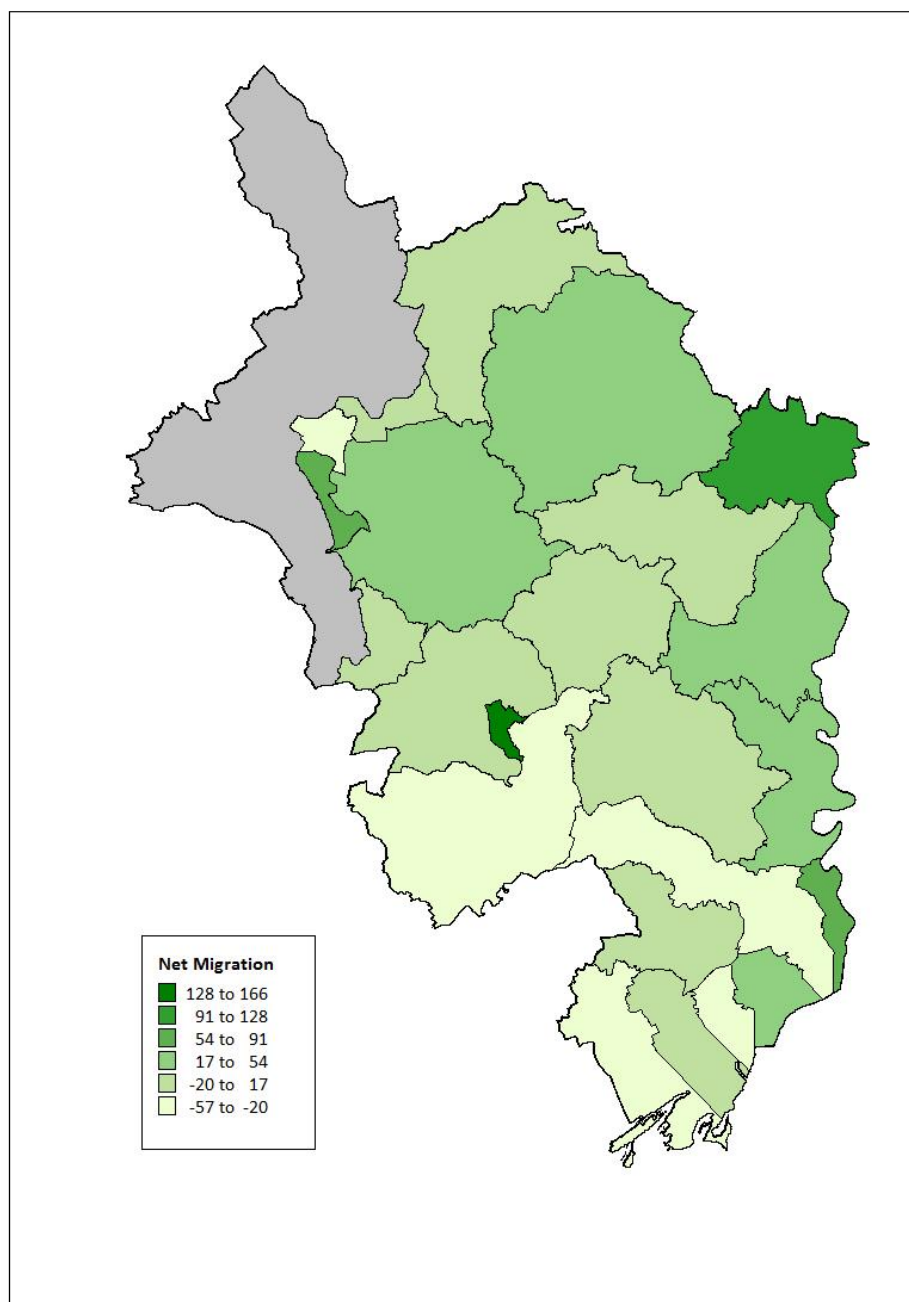
Chart 29: Drivers of population growth (Monmouthshire)



Source: StatsWales (Accessed 13/05/2021)

Chart 29 shows that over the past 30 years population growth in Monmouthshire is wholly attributable to net inward migration with natural change actually showing negative growth. Whilst in-migration is feeding Monmouthshire's total population growth this does not hold true across the whole County. Map 20 shows net migration (excluding international migration) by ward in the year up to the Census in 2011. Many of the central wards in the county experienced net out migration during this period, whilst the highest levels of in-migration were experienced by Usk, Monmouth and Chepstow.

Map 20: Spatial distribution of migration



Source: ONS 2011 Census

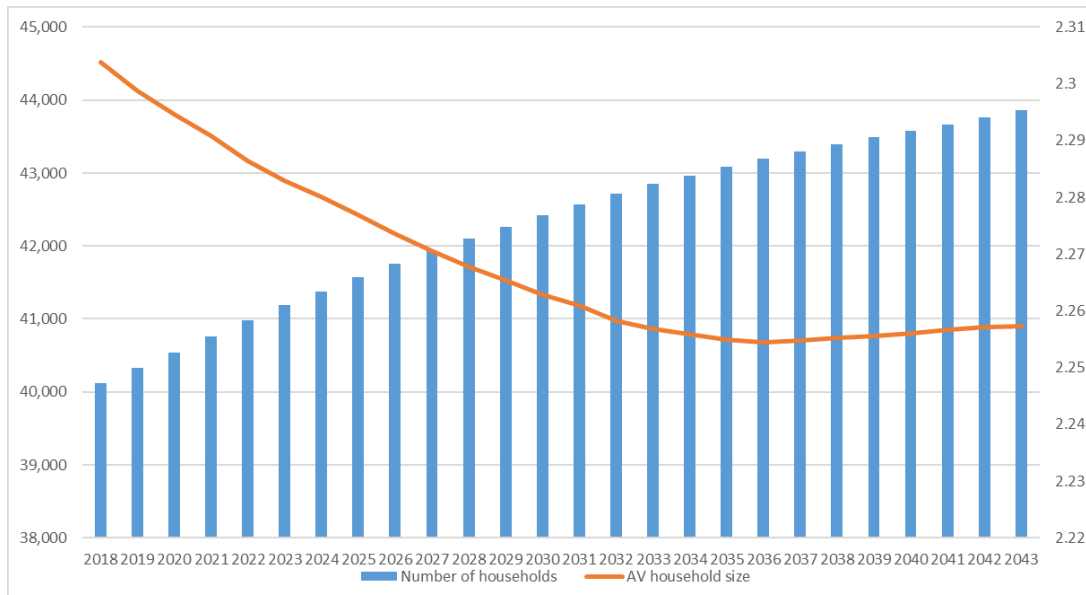
5.2.5 Number of Households

Chart 30 below illustrates the Welsh Government's 2018-based Household projections and reflects wider trends including smaller families, longer life expectancy and more single elderly living alone.

The Welsh Government's 2018-based Household projections anticipated an additional 77,400 households being formed across South East Wales between 2018 and 2043, this represented a 17.9% growth over the household level at 2011. In Monmouthshire the projections indicated an additional 3,745 households over this same period, a

growth of 14.7% over the household level at 2011. The Welsh Governments 2018-based Household Projections suggest that by 2043 there will be 43,859 households in Monmouthshire.

Chart 30: Number of households and household size



Sources: Welsh Assembly Government 2018-based Household Projections (Accessed via StatsWales 13/05/2021)

5.3 Key Issues arising from a review of the Baseline Population Characteristics

An equal society can help to ensure that public services and employment are fair and accessible to all and that communities are sustainable and resilient. The following are the key issues to arise from a review of the baseline population characteristics of the County:

- Monmouthshire is a rural county with almost half (47%) of the total population living in wards defined as being in rural areas (i.e. with a population of less than 10,000).
- The population of Monmouthshire has shown a steady increase, up by 7.6% in the 10 years to 2011, although the most recent mid-year estimates (2019) suggest the rate of growth has slowed. All of this growth is being fuelled by in-migration.
- The 2019 Mid-Year Estimates show Monmouthshire as having a higher proportion of older age groups (32.1% over 60) and a lower proportion of young adults (28.5% 16 – 44) than the Welsh average. This compares to 28.4% for over 60 and 31.4% for 16 - 44 year olds at the time of the 2011 Census. This relative absence of young adults in the population has resulted in a median age in the County of 49.0 years compared to 42.5 for Wales as a whole as per the 2019 mid-year estimates.
- The ageing resident population of the County has implications for its economic base and future economic growth prospects.

- The latest Welsh Government population projections (2018) show a demographic profile in Monmouthshire that, if current trends continue, will have a greater proportion of the population 65 and over by 2043 (32.6%) with the sharpest decline in the working age population. This compares to a Welsh proportion of 25.7% of the population 65 and over.

6.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘Attractive, viable, safe and well-connected communities.’

The data relates primarily to:

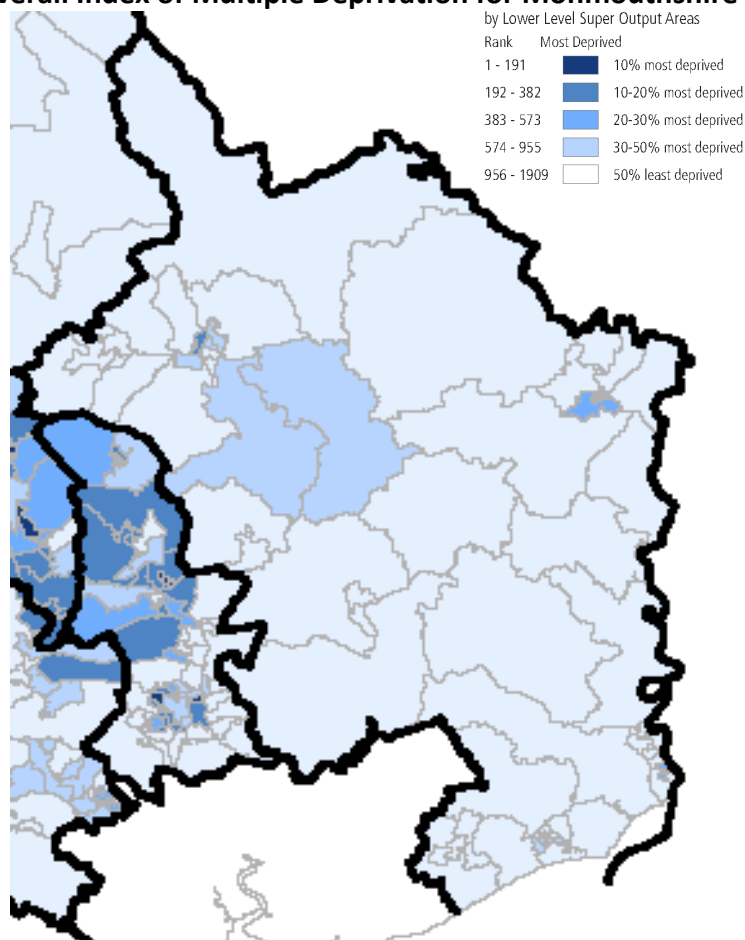
- Deprivation;
- Housing;
- Crime; and
- Transport and access.

6.2 Multiple Deprivation

At the time of the 2019 Welsh Index of Multiple Deprivation (WIMD) none of the 56 lower super output areas (LSOAs) in Monmouthshire were in the most deprived 10% (Ranks 1-191) in Wales. There was one LSOA in the most deprived 20% (Ranks 1-382) in Wales, this was Cantref 2 in Abergavenny, which ranked 377 out of all 1909 LSOAs in Wales. There were also much lower than average levels of deprivation in Monmouthshire in all of the 4 most deprived categories (most deprived 10%, 20%, 30% and 50%). Overall the five most deprived LSOAs in Monmouthshire, (Map 20) were:

- Cantref 2 with a rank of 377 out of 1909. (10%-20% most deprived category)
- Overmonnow 2 with a rank of 425 out of 1909. (20%-30% most deprived category)
- Thornwell 1 with a rank of 450 out of 1909. (20%-30% most deprived category)
- Croesonen with a rank of 653 out of 1909. (30%-50% most deprived category)
- West End with a rank of 656 out of 1909. (30% - 50% most deprived category)

Map 21: Overall Index of Multiple Deprivation for Monmouthshire



Source: <http://www.infobasecymru.net/IAS/> (Accessed 12/05/2021) – Crown Copyright and database right 2019. Ordnance Survey 100017916.

When looking at the individual domains, however, there are areas where Monmouthshire shows higher than average levels of deprivation. Across the income, employment, health, and education domains, there were no LSOAs within the 10% most deprived categories. However, in the access to services domain 15 LSOAs accounting for nearly 27% of LSOAs in Monmouthshire were in the 10% most deprived in Wales. This reflects whilst Monmouthshire remains relatively affluent the rural nature of the County can pose a challenge.

6.3 Housing

6.3.1 Household Tenure

At the time of the 2011 census 73.6% of households in Monmouthshire were living in owner occupied accommodation, compared to 67.4% in Wales. This compares to 2001 when 76.2% of households in Monmouthshire were living in owner occupied accommodation, there has thus been a 2.6% decrease in the period 2001-2011, whereas the period 1991-2001 saw a rise of 16.5%. Wales also saw a decline in this tenure of 3.9% since 2001, with the period 1991-2001 seeing a rise of 8.8%. The percentage of properties rented from the Local Authority, housing associations and social landlords in 2001 was 14.7%, in 2011 this figure was 13.8%, meaning that in the intercensal period there was a 0.9% decrease. The period 1991-2001 also saw a decline of 17% in this tenure. However, some of this decline has been as a result of increased provision from the other social rented sector, with 64 households in 2001 compared to 3,698 households in 2011, this increase can partly be explained by amalgamations in certain sectors of the data.

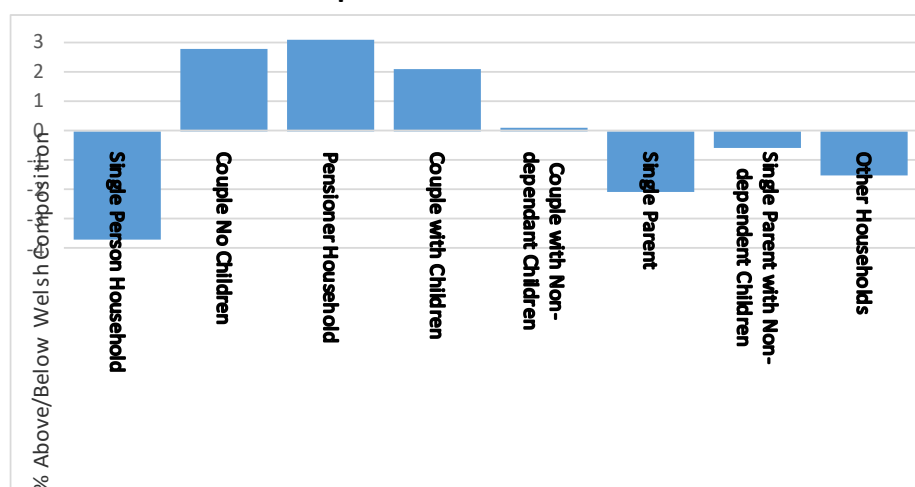
Table 31: Household tenure 2011

	All Households	Owner occupied (with or without a mortgage)	Rented from the Council	Other social rented	Private rented or living rent free
Monmouthshire	38,233	73.6%	4.2%	9.7%	12.2%
SE Wales	621,328	66.8%	8.8%	8.2%	15.7%
Wales	1,302,676	67.4%	9.8%	6.6%	15.7%

Source: ONS 2011 Census

6.3.2 Household Composition

Chart 31: Household composition



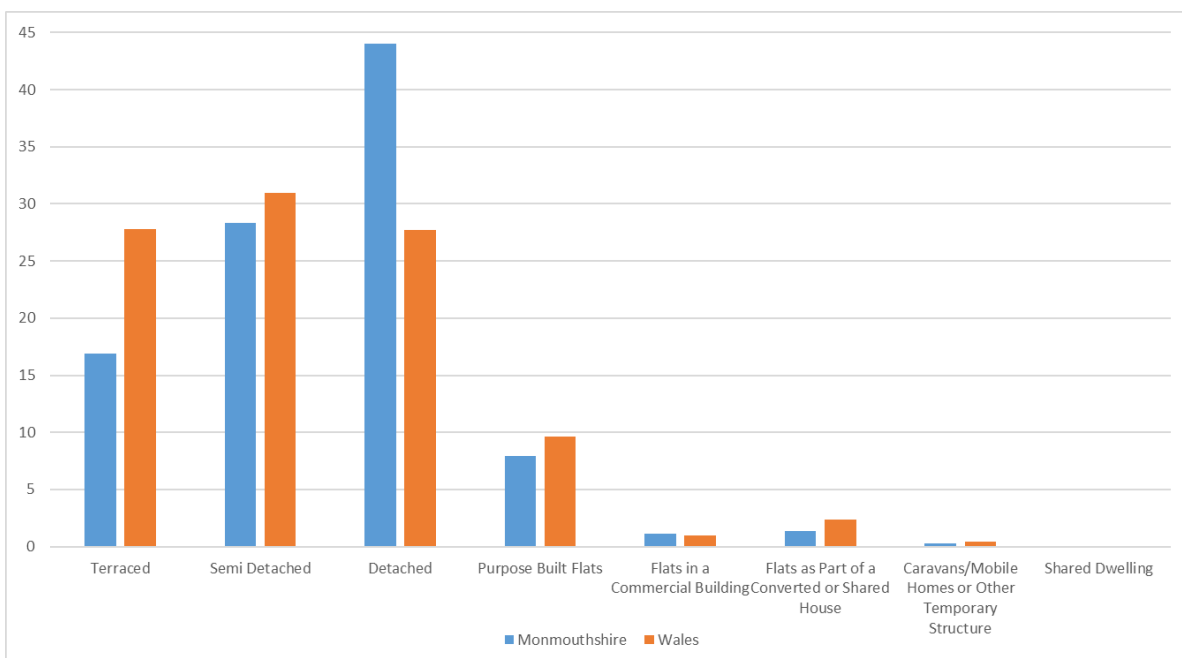
Source: ONS 2011 Census

Chart 31 summarises the composition of households resident in Monmouthshire at the time of the 2011 Census. The incidence of couples with no children and couples with children along with pensioner households are significantly above the Welsh average. It is important to consider the composition of households when assessing the housing need. An area with more single people requires accommodation comprised of smaller dwelling units, while an area with families will require larger houses to accommodate them.

6.3.3 Dwelling Type

44% of households in Monmouthshire live in detached properties, this compares to 27.7% for Wales as a whole. In contrast only 16.9% of households are resident in terrace properties compared to the Welsh average of 27.8% (Chart 32).

Chart 32: Dwelling type (%)



Source: ONS 2011 Census

6.3.4 Housing Completions

Table 32 shows the housing completions in the County for both private and affordable housing for the period 2009 to 2021. The level of affordable completions for the period stood at 20.4% of all completions. There is a policy framework in place through the Adopted Local Development Plan for securing at least 35% affordable housing on developments of 5 or more dwellings in the main towns of Abergavenny, Chepstow and Monmouth and in the Rural Secondary Settlements of Usk, Raglan, Penperlleni and Llanfoist. The current policy framework also aims to secure 25% affordability on new sites in Severnside, 60% on rural allocations in main villages and 35% on large windfall sites.

Table 32: Housing completions

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020/
Sector	/10	/11	/12	/13	/14	/15	/16	/17	/18	/19	/20	21
Private	144	206	210	293	194	188	171	191	195	312	274	348
Affordable	14	61	44	49	36	17	63	47	84	131	82	71

Source: Monmouthshire Housing Land Availability Study

6.3.5 Housing Need

The December 2020 Monmouthshire County Council Local Housing Market Assessment, estimated 468 units of affordable housing would be required each year for the period up to 2025. However, this figure should not be taken as an annual delivery target, as new build homes are not the total solution to the supply of affordable homes in the county. The Affordable housing need can be further broken down to 319.6 social rented properties, 115.2 low cost home ownership properties and 33 intermediate rented properties. The Council is working with private landlords to increase the supply of private rented homes and also to bring empty properties back into use. The 115.2 low cost homeownership need in particular will be met by a variety of different products such as the Welsh Government's Help to Buy and Rent to Own schemes in addition to delivery of new build through the planning system. The figure of 468 is simply an indication of current and projected need for affordable housing within the County and sets a benchmark which the Council can work towards within the scope of the Council's Local Development Plan. The affordable housing waiting list for the County (Bands 1 – 5) currently stands at more than 3,500 households of which over 2,400 have a recognised need.

6.3.6 Housing Association Stock

Table 33: Housing Association (HA) Stock by Type (2021)

	MHA	Melin	Charter	Other	Totals
Bedsit	3	20	0	0	23
Bungalow 1	441	17	0	0	458
Bungalow 2	250	42	21	0	313
Bungalow 3	10	4	1	0	15
Bungalow 4	1	0	0	0	1
Flat1	818	398	218	57	1491
Flat2	570	70	37	3	680
Flat3	22	2	0	0	24
Flat4	1	0	0	0	1
House 1	2	0	29	0	31
House2	398	298	235	20	951
House3	1156	329	316	26	1827
House4	69	51	35	0	155

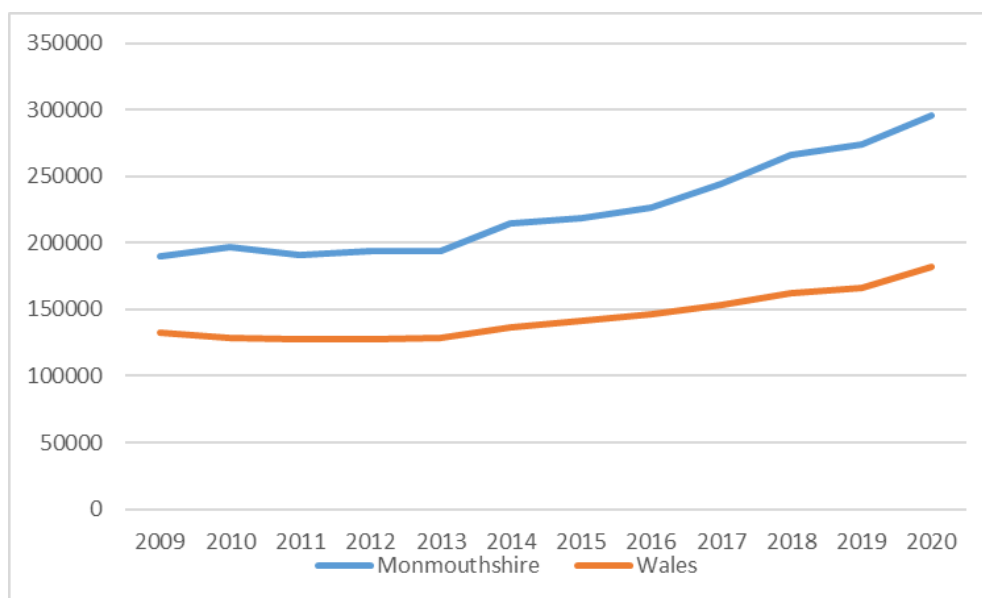
House4 HMO	0	0	0	1	1
House5	2	1	0	0	3
House6	1	1	1	0	3
House6 HMO	1	0	0	0	1
House8	1	0	0	0	1
Mews1	4	0	0	0	4
Maisonette 3	20	0	0	0	20
Maisonette 2	3	0	0	0	3
Parlour 2	1	0	0	0	1
Parlour 3	29	0	0	0	29
Parlour 4	2	0	0		2
Rooms	4	5	0		9
Totals	3809	1238	893	107	6047

Source: Monmouthshire County Council (2021)

Table 33 shows the housing stock available in Monmouthshire provided by the Housing Associations, with the housing stock standing at 6,047 dwellings in April 2021. There is a mix of accommodation available ranging from 1 bed flats to family houses.

6.3.7 Average Property Prices

Chart 34: Average property prices



Source: Hometrack/HM Land Registry/UK House Price Index – (Accessed 12/05/2021)

Chart 34 shows the average house price in December of each respective year between 2009 and 2020. The average house price in Monmouthshire has been significantly above that in Wales throughout this period.

Table 34 illustrates the average price of different types of property within Monmouthshire and the surrounding areas. The average property prices relate to the period August 2019 to February 2020 whilst the percentage sales figures relate to February 2020. Monmouthshire has the second highest average house price in the period, where the largest proportion of property sales were accounted for by detached houses. The average overall property price in Monmouthshire was 42.5% higher than that for Wales for the period.

Table 34: Average property prices based on sales (February 2020)

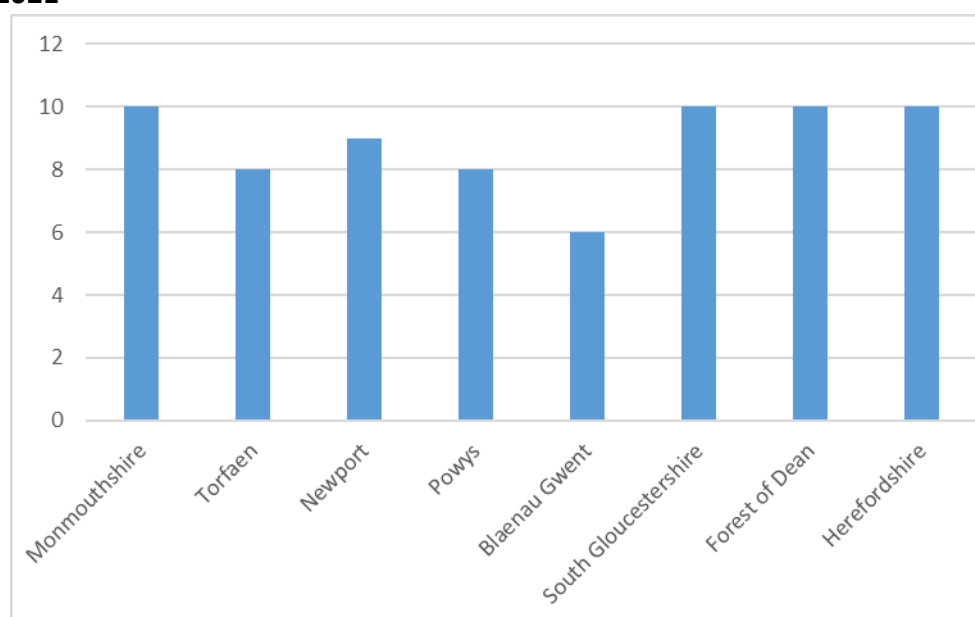
	Detached	Semi-detached	Terraced	Flat/Maisonette	Overall
Wales Av £	275,999	171,819	136,383	131,566	187,560
% Sales	28.5	29.1	34.2	8.2	
Monmouthshire Av £	393,401	244,036	215,500	176,854	299,001
% Sales	39.3	22.6	28.6	9.5	
Torfaen Av £	268,847	165,270	132,019	83,367	164,909
% Sales	28.4	18.2	46.6	6.8	
Newport Av £	307,016	200,702	146,613	107,383	191,288
% Sales	16.7	39.3	35.1	8.9	
Powys Av £	279,673	163,146	137,818	89,060	209,722
% Sales	43.3	26.7	25.8	4.2	
Blaenau Gwent Av £	216,400	120,835	84,778	63,486	104,892
% Sales	10.5	26.3	60.5	2.6	
S Gloucs Av £	438,705	291,935	242,281	165,431	299,803
% Sales	24	29.7	33.3	12.9	
Forest of Dean Av £	338,901	195,082	170,264	112,625	255,951
% Sales	40.5	33.8	16.2	9.5	
Herefordshire Av £	369,012	220,282	181,308	135,924	274,973
% Sales	49	28.8	17	5.2	

Source: Hometrack - (Accessed 12/05/2021)

6.3.8 Affordability

Chart 34 shows the relative lack of affordability of housing in Monmouthshire compared to surrounding authorities in both Wales and England. That is the property price as a multiple of the annual income of the resident population. The graph is similar to that from 2012, however the ratios in all regions have increased over the period. Between March 2020 and February 2021, in Monmouthshire the lower quartile ratio between house prices and income stood at 10:1.

Chart 34: Ratio of house prices to income (lower quartile) March 2020/February 2021



Source: Hometrack - (Accessed 12/05/21)

Table 35 shows the diversity in affordability between the respective wards in Monmouthshire. The ratio is greater in the rural wards, particularly in the north of the County like in the Llantilio Crossenny ward. In contrast the ratio is smaller in the more urban southern wards.

Table 35: Lower Quartile House Price to Income Ratio in Monmouthshire Wards (March 2020/February 2021)

Area	Lower Quartile House Price to Income Ratio	Area	Lower Quartile House Price to Income Ratio
Monmouthshire	10:1	Llanelly Hill	10:1
Caerwent	9:1	Llanfoist Fawr	12:1
Caldicot Castle	9:1	Llangybi Fawr	14:1
Cantref	9:1	Llanover	16:1
Castle	8:1	Llantilio Crossenny	19:1
Croesonen	11:1	Llanwenarth Ultra	11:1
Crucorney	10:1	Mardy	15:1
Devauden	19:1	Mill	10:1
Dewstow	11:1	Mitchel Troy	11:1
Dixton with Osbaston	13:1	Overmonnow	12:1
Drybridge	10:1	Portskewett	10:1
Goytre Fawr	11:1	Priory	13:1
Green Lane	11:1	Raglan	12:1
Grofield	11:1	Rogiet	11:1
Lansdown	11:1	Severn	11:1
Larkfield	9:1	Shirenewton	13:1

Llanbadoc	13:1	St Arvans	12:1
St Christophers	11:1		
St Kingsmark	9:1		
St Mary's	11:1		
The Elms	8:1		
Thornwell	10:1		
Trellech United	13:1		
Usk	13:1		
West End	9:1		
Wyesham	10:1		

Source: Hometrack - (Accessed 21/05/21)

6.4 Crime

Tables 36 shows the incidences of crime in Monmouthshire for the years 2014/15 to the year ending March 2019. The proportional share of crime is largely consistent over the years, however the year ending March 2019 recorded the highest counts of crime in 8 of the 9 categories, and noticeably so in Public Order Offences. Theft offences are consistently the largest proportion of crime in Monmouthshire, followed by violence against a person.

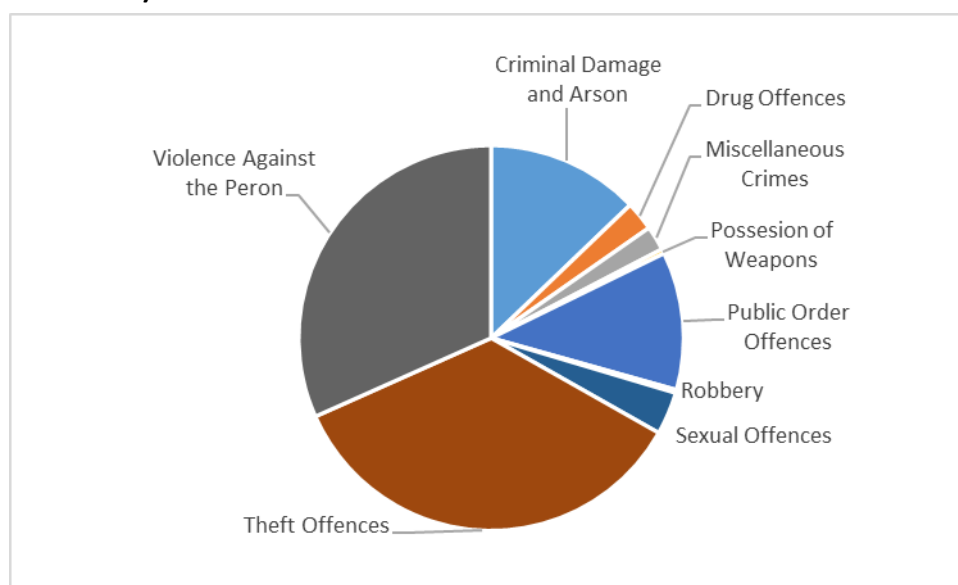
Table 36: Crime in Monmouthshire

Crime	2014/15	%	2015/16	%	2016/17	%	2017/18	%	2018/19	%
Criminal Damage and Arson	625	15.67	576	14.04	520	13.86	632	13.33	760	12.9
Drug Offences	236	5.92	162	3.95	108	2.88	112	2.36	145	2.45
Miscellaneous Crimes	48	1.20	65	1.58	78	2.08	120	2.53	122	2.06
Possession of Weapons Offences	10	0.25	18	0.44	12	0.32	16	0.34	23	0.39
Public Order Offences	185	4.64	199	4.85	236	6.29	374	7.89	685	11.6
Robbery	7	0.18	11	0.27	6	0.16	10	0.21	16	0.27
Sexual Offences	121	3.03	142	3.46	104	2.77	156	3.29	212	3.58
Theft Offences	1960	49.14	1831	44.63	1620	43.19	2022	42.64	2078	35.1
Violence Against the Person	797	19.98	1099	26.79	1067	28.45	1300	27.41	1873	31.7

Source: Crime Community Safety Partnership Statistics - (Accessed 10/09/2018 and 12/05/2021)

Incidences of reported crime in Monmouthshire have largely followed the same pattern as within Wales as a whole, however, in the year ending March 2019, the largest proportion of recorded crime (35.9%) was attributed to violence against the person, compared to 31.7% in Monmouthshire. The second largest proportion (30.6%) of crime were theft offences which were the largest proportion in Monmouthshire for the same period at 35.1%.

Chart 35: Incidences of Reported Crime in Monmouthshire (Count) (Year Ending March 2019)



Source: Crime Community Safety Partnership Statistics - (Accessed 12/05/2021)

6.5 Transport

6.5.1 Roads

Table 37: Road Length by Road Class 2018/19 (KM)

Location	Motorway	Trunk	County	B & C Road	Minor Surfaced
Monmouthshire	22.3	101.8	58.7	611.5	839.0
Newport	25.9	8.8	51.3	189.1	415.3
Torfaen	0	14	26.3	101.6	314.5
Blaenau Gwent	0	9.6	51.0	67.6	389.7
Powys	0	429.9	242.6	2,708.2	2,126.8
Wales	134.8	1,575.6	2,773.0	12,861.0	17509.1

Source: StatsWales - (Accessed 11/05/2021)

Whilst Monmouthshire accounts for 4.7% of the total Wales road network, it accounts for 16.5% of the Welsh motorway network. In the Monmouthshire Local Development Plan there are two safeguarded proposed highway schemes:

- (a) M4 Relief Motorway around Newport – Magor to Castleton (Assembly Government Scheme)
- (b) B4245 Magor/Undy Bypass (Monmouthshire County Council Scheme)

6.5.2 Volume of Traffic

Table 38: Volume of Traffic (Billion Vehicle Kilometres)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% +/-
Monmouthshire	1.338	1.349	1.33	1.351	1.421	1.446	1.5	1.521	1.553	1.592	19
Newport	1.76	1.812	1.8	1.818	1.928	1.985	2.038	2.058	2.082	2.094	19
Torfaen	0.611	0.618	0.615	0.612	0.649	0.666	0.692	0.679	0.719	0.727	19
Blaenau Gwent	0.396	0.404	0.406	0.411	0.42	0.448	0.462	0.438	0.442	0.448	13.1
Powys	1.472	1.471	1.459	1.497	1.556	1.603	1.672	1.697	1.739	1.795	21.9
SE Wales	12.704	12.882	12.975	13.115	13.733	14.102	14.515	14.408	14.816	15.007	18.1
Wales	27.173	27.327	27.359	27.806	28.95	29.963	30.712	30.841	31.644	32.115	18.1

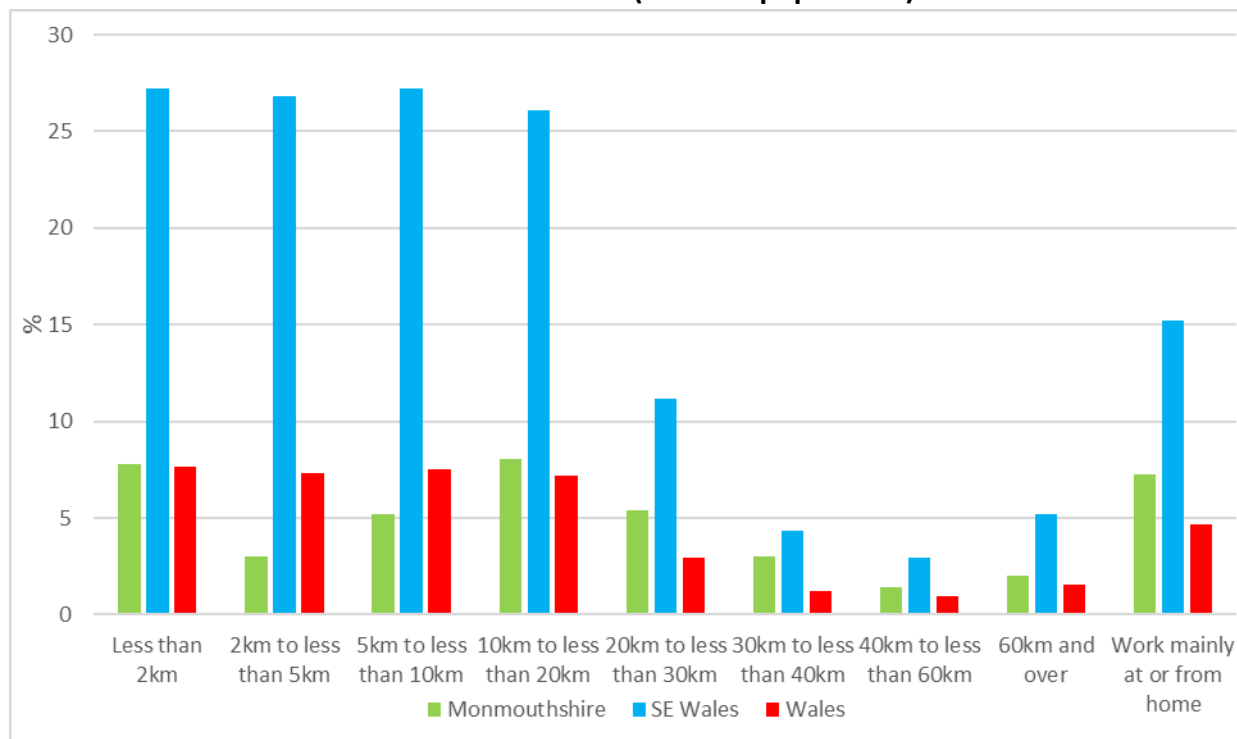
Source: StatsWales - (Accessed 12/05/2021)

The net volume of traffic since 2010 has increased throughout Wales, with the largest increases seen in Powys. In 2019, the South East Wales area accounted for 46.8% of the volume of traffic in Wales. There has been an increase in traffic volume of 19% since 2010 in Monmouthshire compared to 18.1% across the South East Wales region.

6.5.3 Travel to Work

Section 1 showed that there is a high level of commuting amongst Monmouthshire's residents. In 2011, 18% of those in employment between the ages of 16-74 in Monmouthshire who travel to work travelled further than 30km to their place of work this compares to 11.3% in 2001. In 2011 10% of residents in the SE Wales region and 8.5% for Wales as a whole travelled further than 30km to their place of work. Equally, the percentage of those working mainly at or from home was 12.9% in 2001 compared to 15% in 2011, this compares to 10% for SE Wales and Wales. The average distance travelled to work by Monmouthshire residents in 2011 was 21.9km compared to 15.1km across the region and 16.7km in Wales.

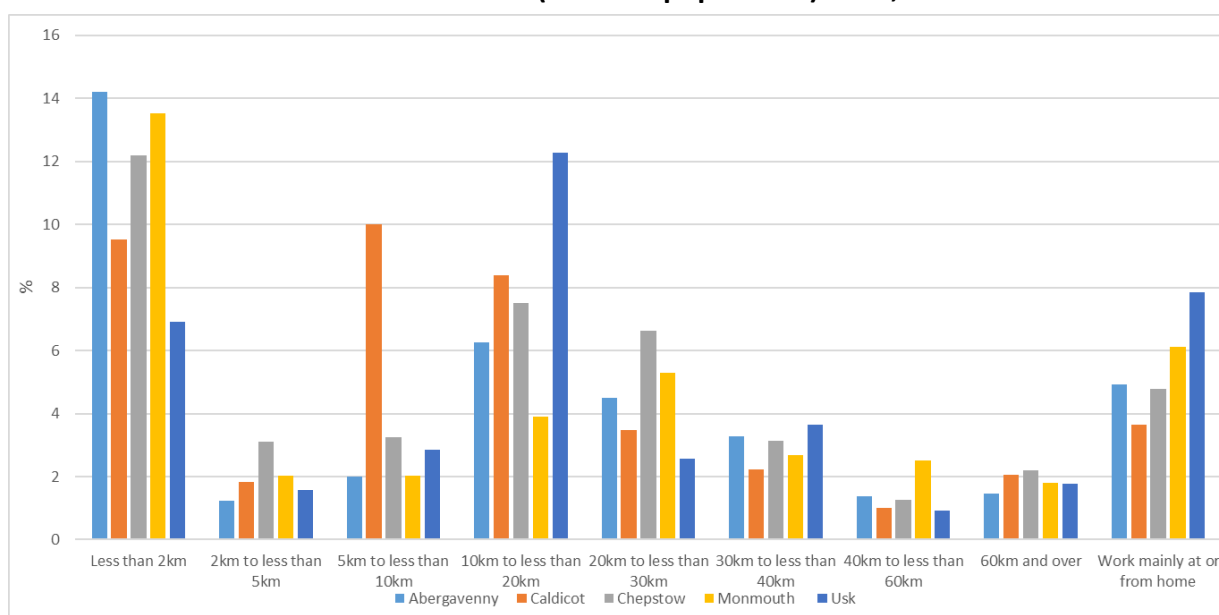
Chart 36: Distance travelled to work (resident population) 2011



Source: ONS Census 2011

Similarly to 2001, in 2011, Abergavenny and Monmouth had the highest percentage of their resident population working within 2km of their place of residence. In 2011, relatively large proportions of the resident population in each of the respective main settlements, worked mainly at or from home, the largest proportion seen in Usk, at just under 8%. However Usk and Chepstow also had the largest average distance travelled to work (21.1km), followed by Monmouth (20.7km) and then Caldicot (19.8km) and Abergavenny (18.8km).

Chart 37: Distance travelled to work (resident population) 2011, main settlements



Source: ONS Census 2011

6.5.4 Mode of Travel to Work

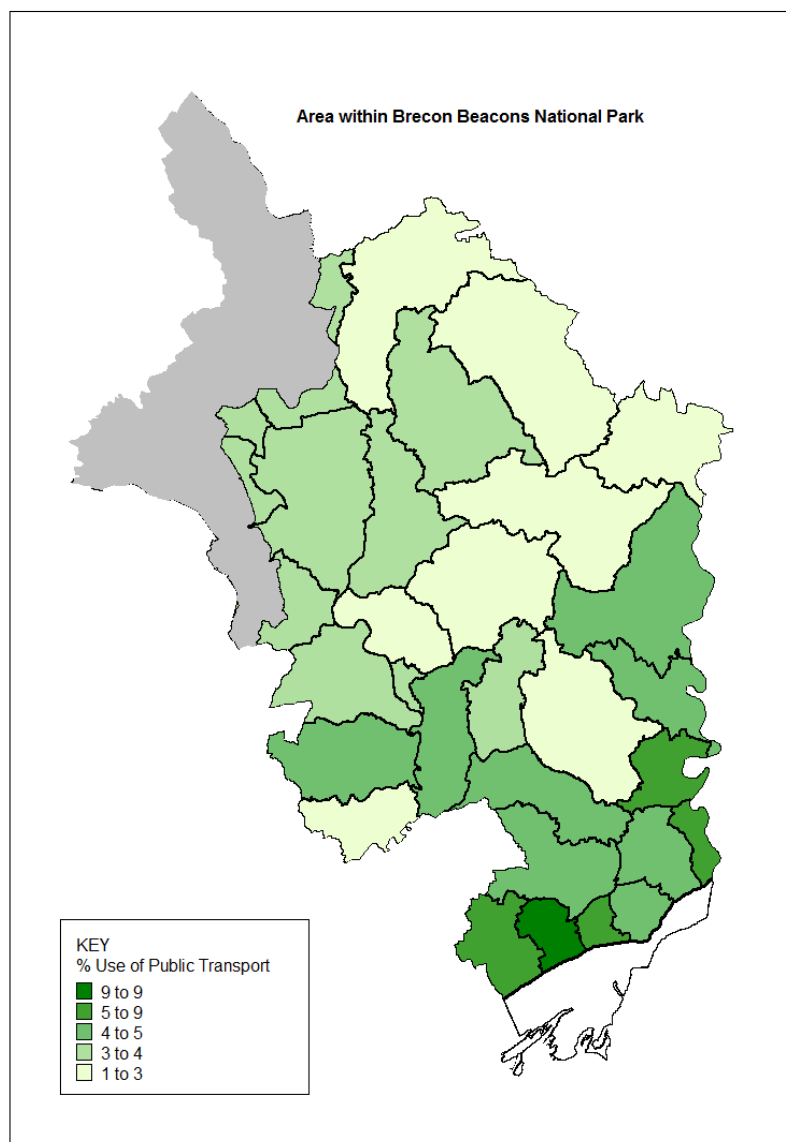
Table 38: Mode of travel to work – resident population (excluding those working mainly from home)

	Monmouthshire	South East Wales	Powys	Wales
Underground, metro, light rail	0.2	0.1	0.1	0.1
Train	2.4	2.9	0.7	2.2
Bus, minibus or coach	1.6	5.9	1.3	5.0
Taxi or minicab	0.2	0.5	0.2	0.5
Driving car or van	76.3	69.3	74.8	71.4
Passenger in car or van	6.1	7.1	5.8	7.4
Motorcycle, scooter, moped	0.9	0.6	0.4	0.6
Bicycle	1.3	1.9	1.7	1.6
On foot	10.5	11.2	14.2	10.7
Other	0.5	0.4	0.8	0.5

Source: ONS Census 2011

At the time of the 2011 Census 82.4% of the resident population of Monmouthshire were travelling to work by car or van, compared to 81.5% in 2001. In South East Wales in 2011, this figure was 76.4%, and in Wales 78.8%. In Powys, which in common with Monmouthshire is a rural border County, the figure is also lower than that for Monmouthshire at 80.6%.

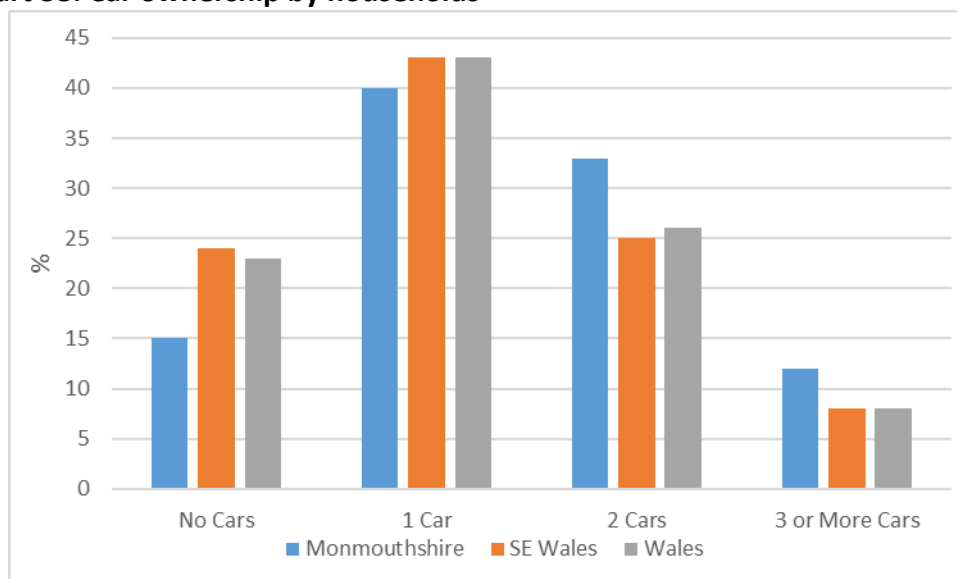
Map 22: Travel to Work – use of public transport



Source: ONS Census 2011

Monmouthshire has a lower percentage (3.6%) of its resident working population travelling to their place of work using public transport than either South East Wales (8.2%) or Wales (6.7%) as a whole. Although the South East Wales figures are influenced by Cardiff and Newport who have higher percentages, 13.6% and 10.1% respectively, of their resident population using public transport. The above map shows the use of public transport within Monmouthshire by Town and Community Councils, where the larger proportions of those using public transport are in the South of the County, where there are links to the M4 and train stations such as that at Severn Tunnel Junction and Chepstow. Rogiet had the highest proportion with 9% use of public transport, with the lowest in Llangattock Vibon Avel (1.2%).

Chart 38: Car ownership by households

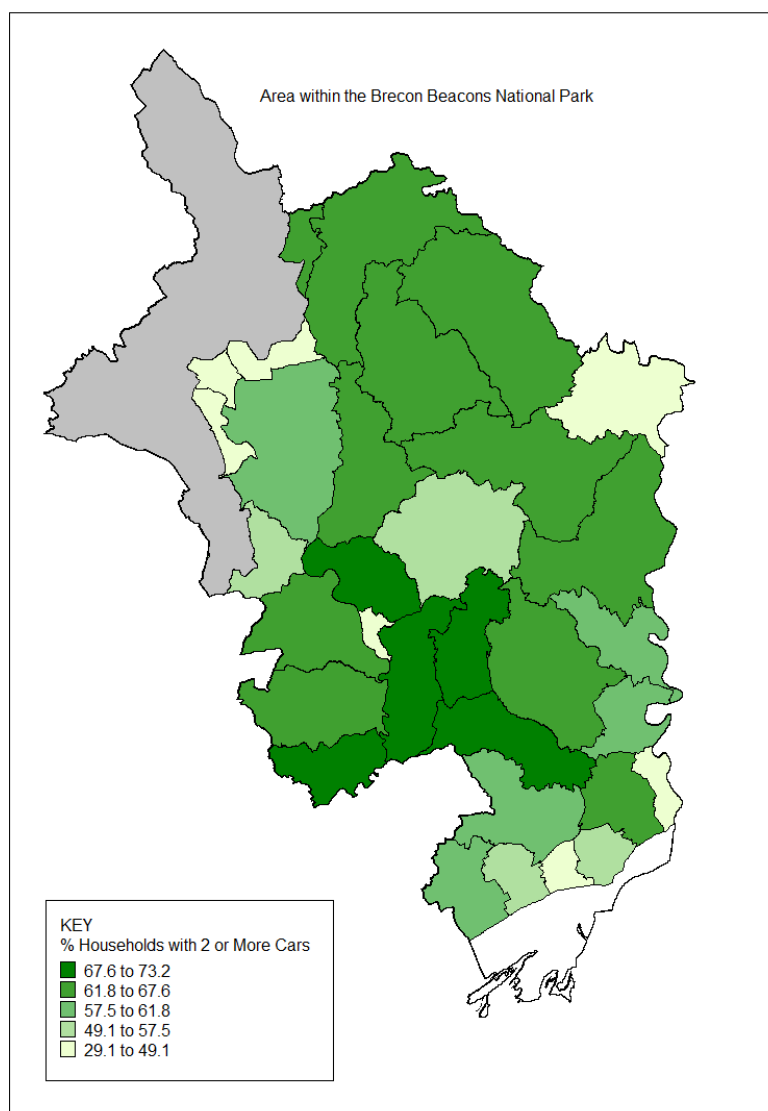


Source: ONS Census 2011

Monmouthshire has a higher percentage (33%) of households with 2 cars than either South East Wales (25%) or Wales (26%) as a whole. Equally, at the time of the 2011 Census, Monmouthshire had a larger proportion of households with 3 or more cars than both the South East Wales region and Wales as a whole. There has also been an intercensal increase in the number of cars per household. The 1991 Census recorded 33.7% of Monmouthshire households with 2 or more vehicles, this had risen to 40.1% by the time of the 2001 Census, and the 2011 Census recorded 45% of households.

Map 23 shows the distribution of car ownership throughout the County in 2011. As would be expected the level of car ownership is lower in the towns where there is access to greater levels of public transport than in the more rural areas where access to services is more limited.

Map 23: % Households with 2 or more cars or vans



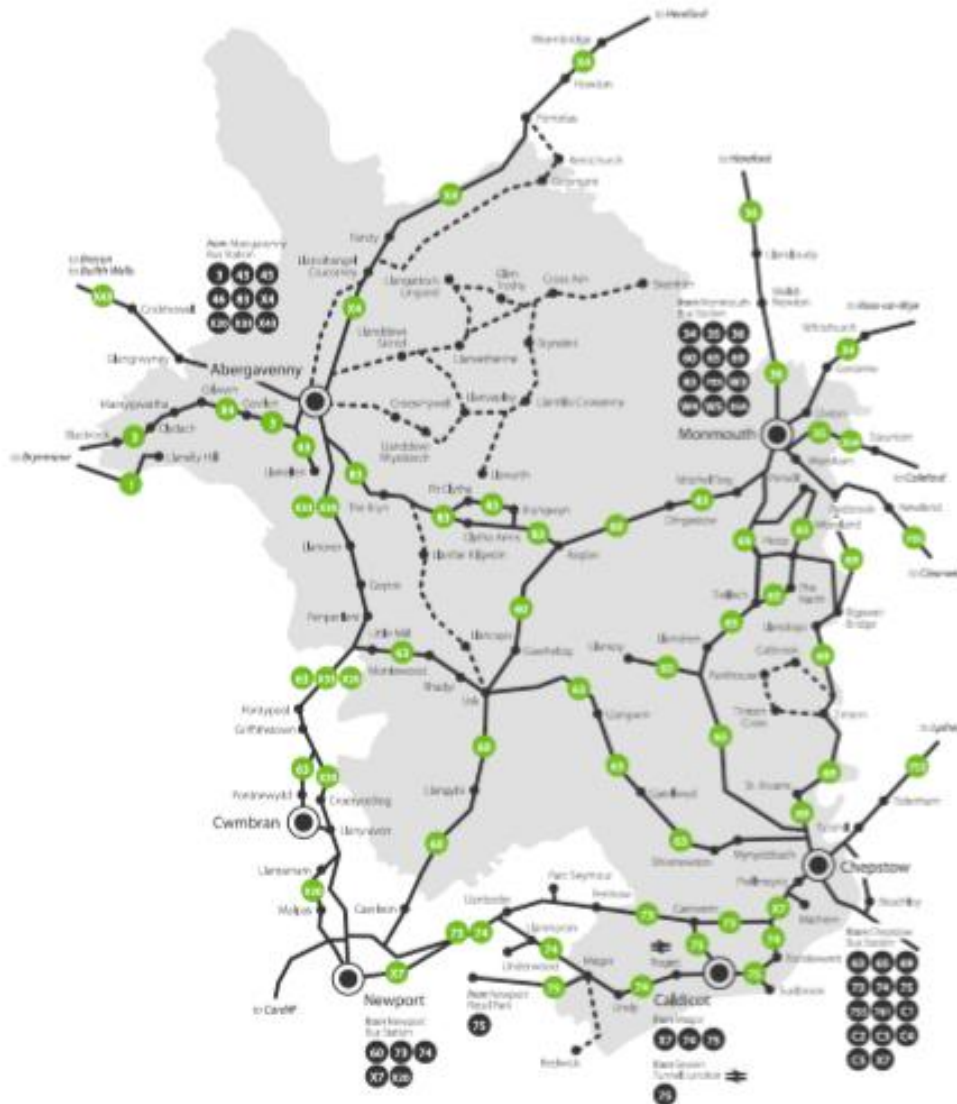
Source: ONS Census 2011

6.5.5 Public Transport Provision

Monmouthshire is served by a number of both local and national bus routes. The main towns of Abergavenny, Chepstow and Monmouth all have bus stations with bus services extending to the surrounding towns and villages and to the sub-region, including Bristol, Gloucester, Hereford, Newport and Cardiff, as illustrated in Map 24. From the map, however, it can be seen that in the north of the County in particular there is a lack of provision in the rural areas. This has been partly addressed by the introduction of a 'grass routes' bus service, which is a demand responsive bus service available during the week for all residents of Monmouthshire and accommodation providers who are members of the scheme.

In terms of rail provision, Monmouthshire has four railway stations, Caldicot, Chepstow and Severn Tunnel Junction in the south of the County and Abergavenny in the north. The centre and north east of the County are poorly served for rail travel.

Map 24: Monmouthshire Bus Services



Source: Monmouthshire County Council Local Transport Plan

6.5.6 Public Rights of Way and Cycling

Table 40 shows the extent of the public rights of way network that is present in Monmouthshire excluding the Brecon Beacons National Park (BBNP). The maps on the following pages identify the PRoW network and that for off road cyclists and horse riders. Map 25 shows that although there is localised fragmentation, there is generally a high density and good coverage for walking within the county. Generally there is a good network of footpaths all over Monmouthshire but there are gaps in provision where there are Ministry of Defence Sites (such as in Caerwent) and in areas of privately owned estates such as The Hendre in Monmouth and along part of the coast

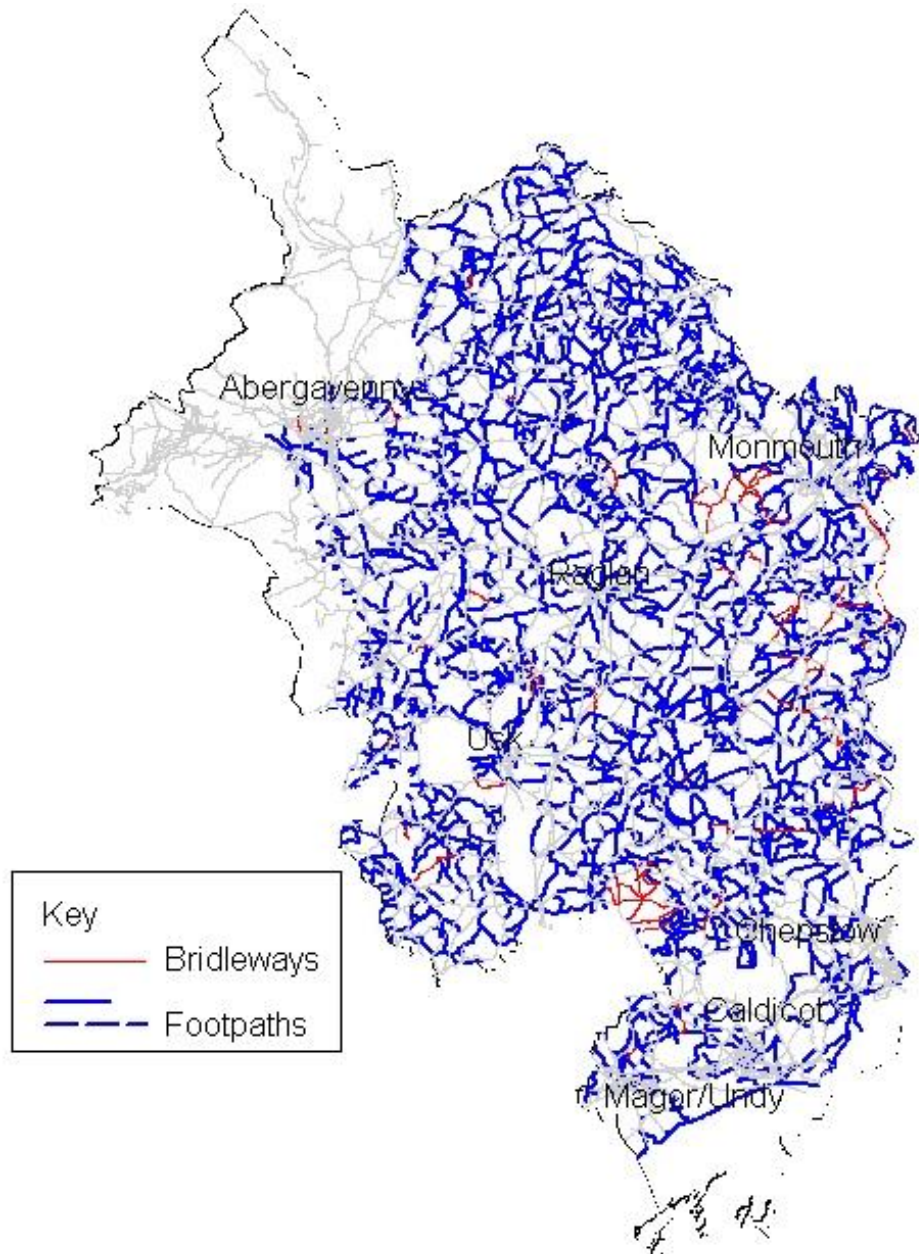
(Source: Monmouthshire ROWIP). There are 5 regional trails within the County, The Wye Valley Walk, The Three Castles Way, The Usk Valley Walk, St Tewdrig's Trail and the Monnow Valley Walk. There is also the Offa's Dyke Path National Trail and the Wales Coast Path which runs around the Severn Estuary ending in Chepstow.

Table 40: Extent of PROW network (Excluding BBNP)

Status of Path	% of Network	Total km
Bridleway	4.9%	76.2
Footpath	89.7%	1,408.1
Restricted Byways	5.3%	83.9
Byway	0.1%	1.5
Total km of PROW in Monmouthshire (excluding BBNP)		1,569.7
Total km of PROW in Wales		33,000

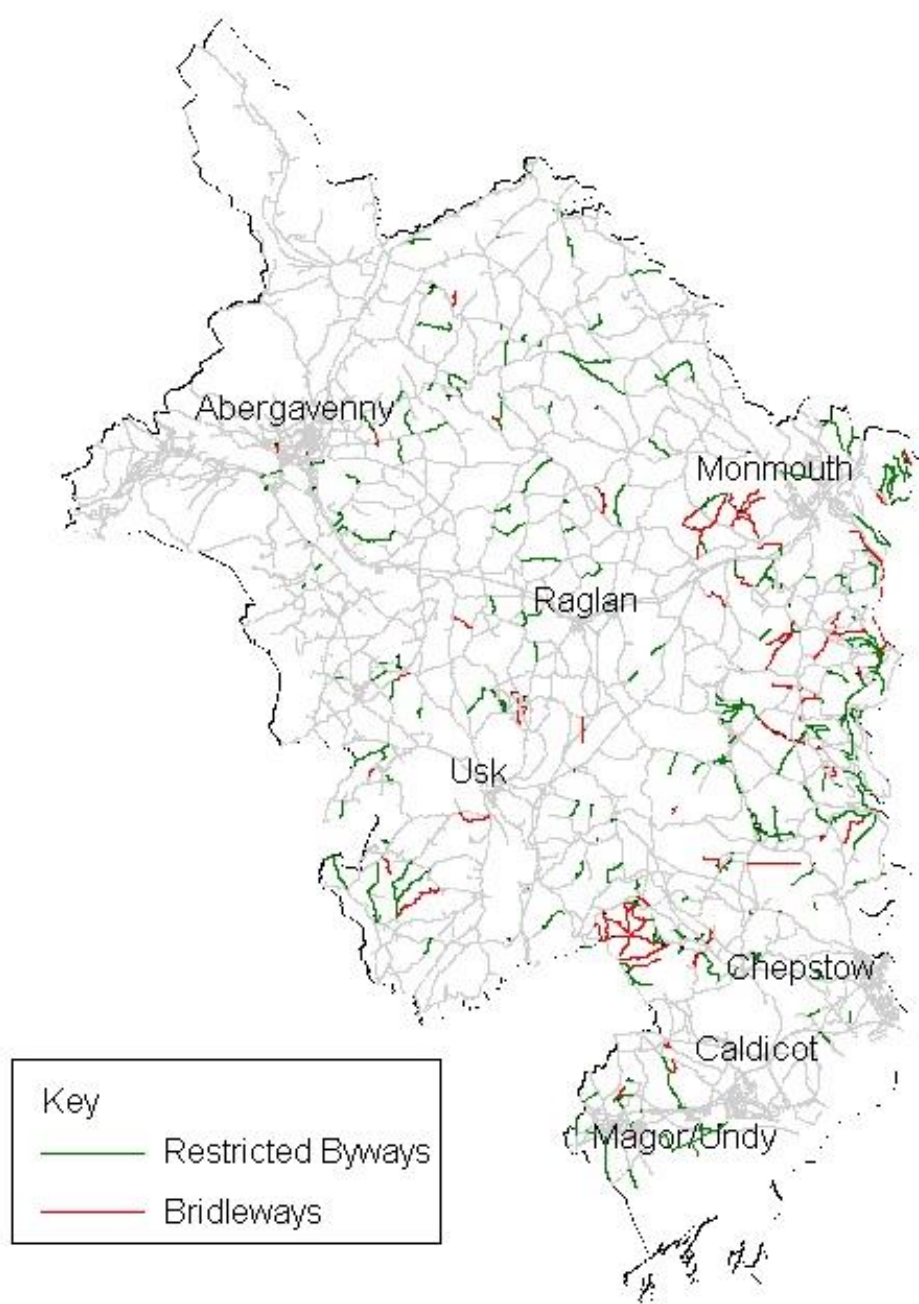
Source: Monmouthshire County Council 2021

Map 25: Networks of Rights of Way



Map 26 identifies the network for off road cyclists and horse riders. The map reveals a highly fragmented network, with little chance of connectivity possible without including the highways network. There are two national cycle routes within the county, both of these run from Chepstow; number 4- The Celtic Trail (Severn Bridge to Pembrokeshire) and number 42 (Chepstow to Glasbury, Powys). There are however currently no maps available to show all of the existing cycle ways within the county and this is therefore considered to be a data gap.

Map 26: Network for off road cyclists and horse riders



6.6 Key Issues arising from a review of the Baseline Characteristics

The creation of cohesive communities which are attractive, well-connected, safe and meet the needs of the population are important and is strongly tied to supporting the economy of Monmouthshire. The following are the key issues to arise from a review of the baseline characteristics of the County:

Housing

- House prices in the county are high (£299,001) compared to the Welsh average (£187,560) and have experienced significant increases in recent years, up 35% over the past 5 years. There is a need to consider the potential impact on house prices

arising from the removal of the Severn Bridge Tolls, the ambitions and opportunities associated with the Cardiff Capital Region and the SE Wales Metro.

- House prices are also high in relation to earnings (10:1) and there is a pressing need for additional affordable housing in the County in both urban and rural areas. The affordable housing waiting list for the County (Bands 1 – 5) currently stands at more than 3,500 households.
- A range and choice of housing is needed to both meet the needs of an ageing population and to attract and retain the younger age groups.
- The latest Welsh Government household projections (2018) indicate that the number of households in South East Wales will increase by 11.8% (77,400) between 2018 and 2043. Monmouthshire will have to accommodate a share of this growth both to fulfil its regional obligations as part of the Cardiff Capital Region and to ensure the viability of its own communities by addressing affordability and demographic issues.

Transport and Access

- The volume of traffic in the County has continued to increase, up nearly 19% in the nine years to 2019. With a pattern of relatively long travel to work distances, high levels of car ownership and reliance on the private car.
- Poor access to community facilities and declining local service provision is a particular issue for rural communities. Achieving sustainable accessibility requires that whilst the majority of retail and other service provision takes place in existing centres local service provision in the smaller settlements is also supported. Where it is necessary to travel to existing centres to access higher order services there is a need to ensure that there is a sustainable transport system that connects these centres to their rural hinterlands.

7. A Wales of Vibrant Culture & Thriving Welsh Language

7.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.’

The data relates primarily to:

- Welsh Language;
- Diversity;
- Cultural and Heritage Assets and townscape; and
- Landscape

7.2 Welsh Language

The Welsh Government is committed to reviving and revitalising the Welsh language. In 2012 ‘A living language: a language for living’ was published. This was the Welsh Ministers' strategy for the promotion and facilitation of the use of the Welsh language. The Government's vision is to see the Welsh language thriving in Wales. To achieve that, the strategy aimed to see an increase in the number of people who both speak and use the language. It was a five-year strategy, from 1 April 2012 to 31 March 2017, which superseded Iaith Pawb published in 2003. Post 2017 ‘Cymraeg 2050: A Million Welsh Speakers’, is ‘the Welsh Ministers’ strategy for the promotion and facilitation of the use of the Welsh language’. The ultimate aim of the strategy is to reach the target of a million Welsh speakers by 2050.

Table 41: Knowledge/Skill in Welsh (%) People aged 3 and over

Knowledge/skill (%)	Monmouthshire		Wales	
	2001	2011	2001	2011
Understands spoken Welsh only	2.1	2.4	4.9	5.2
Speaks but does not read or write Welsh	1.6	1.7	2.8	2.6
Speaks and reads but does not write Welsh	0.6	0.7	1.4	1.5
Speaks, reads and writes Welsh	6.8	7.0	16.3	14.1
Other combination of skills	1.8	1.8	3.0	2.4
No knowledge of Welsh	87.1	83.4	71.6	70.8

Source: ONS 2011 Census

At the time of the 2011 Census 7.0% of Monmouthshire’s population aged 3 and over said that they spoke Welsh compared to 6.8% in 2001, and an all Wales figure of 16.3% in 2011. While Monmouthshire is well below the Welsh average during the two intercensal periods there has been a growth in the number of people classifying themselves as Welsh speakers, a figure of only 2%

was recorded for Monmouthshire at the time of the 1991 Census. There are two Welsh Medium Schools in Monmouthshire:

- Ysgol Gymraeg Y Fenni, St David's Road, Abergavenny
- Ysgol Y Ffin, Sandy Lane, Caldicot

At the time of the December 2010 annual population survey 52.7% of the population in Monmouthshire considered themselves Welsh. Monmouthshire was the fifth lowest proportion and above Flintshire, Conwy, Denbighshire and Powys. The figure in Wales at the time was 65%. However, in December 2020, this figure was 48.8%, with Conwy, Powys and Flintshire, all recording lower figures. The figure for Wales at the same time was 62.6% (Source: Statswales)

7.3 Ethnic Diversity

Table 42 shows that Monmouthshire's population profile in terms of ethnic groups is different to both the Wales average and that of the South East Wales region as a whole. At the time of the 2011 census, 98% of Monmouthshire's population classified themselves as white, compared to 98.9% in 2001. In 2011 the figure for Wales's as a whole stood at 95.6% and in South East Wales 93.7%. The South East Wales figures are particularly influenced by the population profile of Cardiff which accounts for over 25% of the population of the region, and as would be expected the population profile is much more diverse in the city.

Table 42: Ethnic Diversity

		%					
	All people (100%)	White	Mixed/Multiple Ethnic Groups	Asian or Asian British	Black/African/Caribbean/Black British	Chinese	Other
England & Wales	56,075,912	86	2.2	7.5	3.3	0.7	1.0
Wales	3,063,456	95.6	1.0	2.3	0.6	0.4	0.5
SE Wales	1,380,136	93.7	1.4	3.3	0.9	0.5	0.7
Monmouthshire	91,323	98.0	0.7	1.0	0.2	0.2	0.1

Source: ONS 2011 Census

7.4 Cultural and Heritage Assets

Monmouthshire has a rich historic environment dating from the prehistoric period. Evidence of Bronze Age burials and Iron Age settlements have been found during excavations in the Gwent Levels. Roman occupation is evidenced by the establishment of a civil town at Caerwent (Venta Silurum), the only Roman walled town in the principality. The Normans brought the Romanesque style of architecture, apparent in the stone keeps of castles and early monastic churches, while the Gothic period is characterised by monastic ruins at Tintern.

Medieval Castles exhibiting a variety of styles were built at Abergavenny, Chepstow, Monmouth, Raglan and Usk. Monmouthshire is also recognised for the interest of its sixteenth and seventeenth century farmhouses and vernacular buildings, with many mansions adding to the architectural interest. The main towns within the County saw a wave of architectural influence in the 18th and 19th centuries with new buildings taking on the architecture of the day. The re-fronting of earlier structures with the new architectural styles is commonly found. The eighteenth and nineteenth century also saw greater industrialisation in South Wales and the industrial heritage of the County can still be seen in many places.

7.4.1 Conservation Areas

There are 31 Conservation Areas within the Monmouthshire planning administrative area designated for their special historic or architectural interest. The 31 Conservation Areas vary considerably in size covering some 1648 hectares in total and include a wide spectrum of different areas from market towns, rural villages and medieval castles. The largest three Conservation Areas are Mathern (231.6ha), Llanarth (203.1ha) and Abergavenny (152.8ha), which illustrates that the larger Conservation Areas are not necessarily found within the urban areas of the County but that the landscape quality of the setting of villages can also be of importance within designations. The boundaries of the Conservation Areas are shown on Map 27.

Conservation Area Appraisals for the county's 31 conservation areas have been conducted and were formally approved by Single Cabinet Member on the 23rd of March 2016. These conservation area appraisals, have since been approved as Supplementary Planning Guidance (SPG).

7.4.2 Historic Parks and Gardens

There are 44 Historic Parks and Gardens identified as having a Special Historic Interest within the Monmouthshire planning administrative area, covering approximately 1925 hectares. The County is exceptionally rich in parks and gardens of historic interest; many of these are closely associated with important listed buildings and are sometimes designed by the same person. The Historic Parks and Gardens are widely dispersed across the County and vary considerably in size and character, the largest of which is Chepstow Park Wood, a seventeenth-century deer park and deer course measuring approximately 366.5 hectares. The second largest is Piercefield Park covering approximately 274.2 hectares, the western half of Piercefield Park has been in use as Chepstow Racecourse since 1926. The extent of the Historic Parks and Gardens is shown on Map 27.

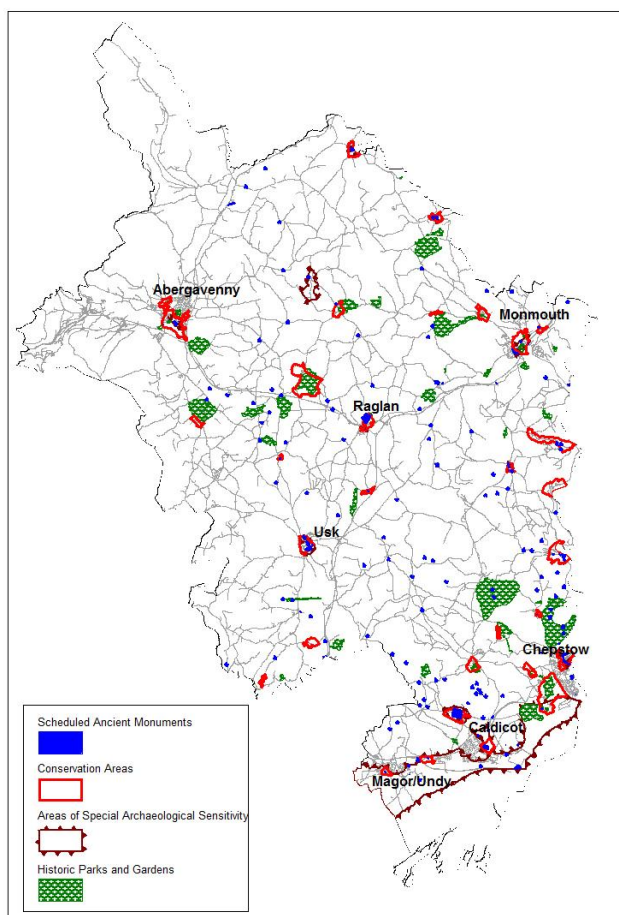
7.4.3 Historic Landscapes

Three Landscapes of Outstanding Historic Interest have been identified by CADW within the Monmouthshire planning administrative area – Blaenavon, the Gwent Levels and the Lower Wye Valley. The outstanding nature of the historic landscapes is more broadly based, identifying those that are among the best surviving and most complete examples. Each of the historic landscapes represents the range, type, diversity and quality of the historic content of the whole of the Welsh landscape. Blaenavon was also inscribed in 2000 as a World Heritage Site for its remarkable industrial heritage.

7.4.4 Scheduled Ancient Monuments

There are approximately 169 archaeological sites statutorily protected as Scheduled Ancient Monuments under the Scheduled Ancient Monuments and Archaeological Areas Act 1979 (Source: Monmouthshire County Council Annual Monitoring Report 2018) within the Monmouthshire planning administrative area. The Scheduled Ancient Monuments are plotted on Map 27.

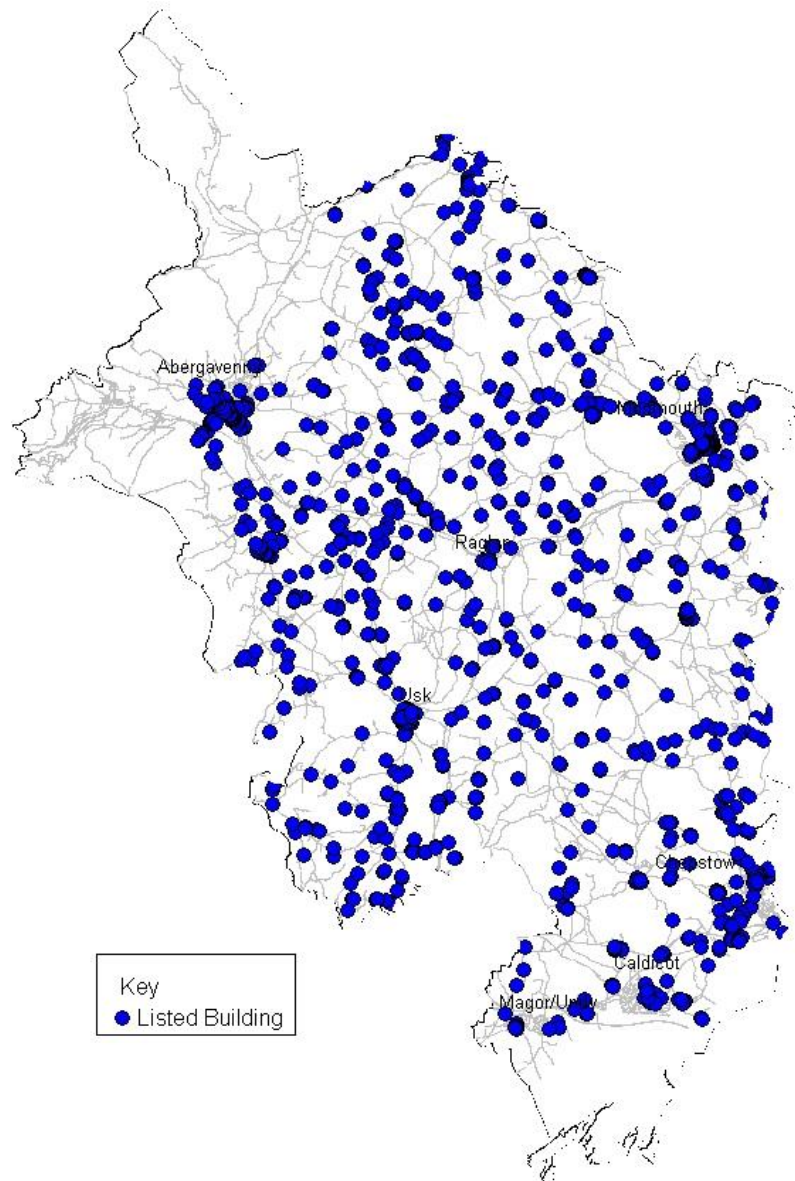
Map 27: Location and Designation of Sites, Areas and Buildings of Historic or Conservation Importance



Source: Cadw 2011

7.4.5 Listed Buildings

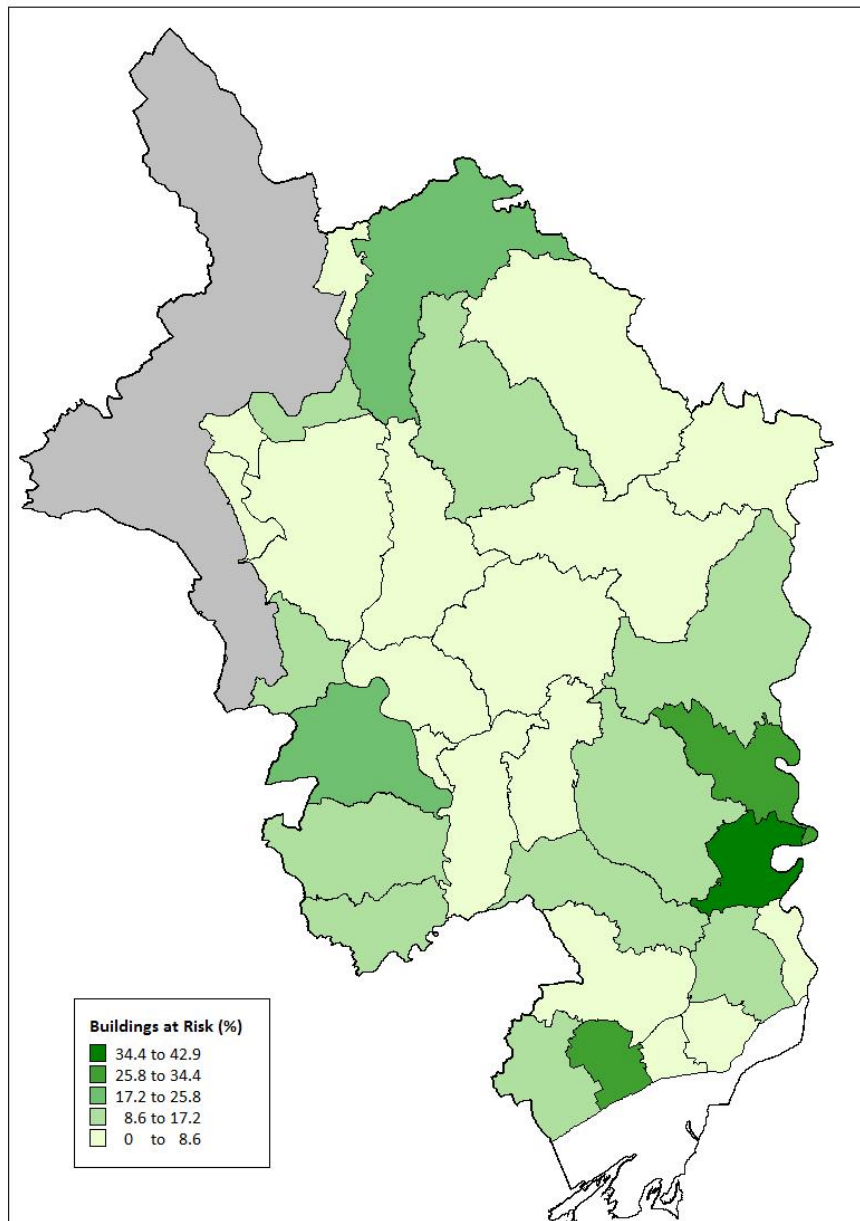
Map 28: Location of Listed Buildings within Monmouthshire



Source: Cadw (2011)

Cadw undertook a re-survey of Listed Buildings within Monmouthshire in 2005, the figures provided were indicative only due to the continual listing process; ad hoc listings may therefore be added to the stock throughout the plan process. In 2018, there were just over 2,220 listed buildings, a figure which is above that recorded in 2011. Of the listed buildings in 2018; 2% were Grade I, 10% are Grade II * and 88% are Grade II. In 2020, there were over 2,140 listed buildings.

Map 29: Proportion of Listed Buildings at Risk- Percentage per Community.



Source: Monmouthshire Conservation Section 2018

There were however a proportion of Listed Buildings within the County identified as being at risk in 2018 , which amounts to approximately 166 in total (7.5% of the stock). The four communities identified as having the highest percentage of listed buildings at risk in name order based on the number of buildings were:

- St Arvans – 42.9% of the communities stock (12 buildings)
- Tintern – 28.1% of the communities stock (9 buildings)
- Rogiet – 30.8% of the communities stock (4 buildings)
- Llanbadoc – 25.0% of the communities stock (4 buildings)

The top five uses of listed buildings at risk are identified as; agricultural (61 buildings, 20.9%), monument (35 buildings, 29.2%), domestic (23 buildings, 2.2%) boundary (23 structures, 17%) and commercial (10 buildings, 2.3%) demonstrating that there is a broad range of uses of listed buildings within the County that are considered to be 'at risk'. As buildings can be removed from the 'at risk' category or added to it the total numbers of Buildings at Risk are indicative and may change throughout the plan period.

The results of human activities on Monmouthshire's landscapes have been extensively analysed using the Countryside Council for Wales' (now NRW) *LANDMAP* methodology, two of the five aspect areas covered in the study relate to History and Culture. The study (Draft Supplementary Planning Guidance Landscape Assessment was published in 2001) in connection with the Deposit Monmouthshire Unitary Development Plan.

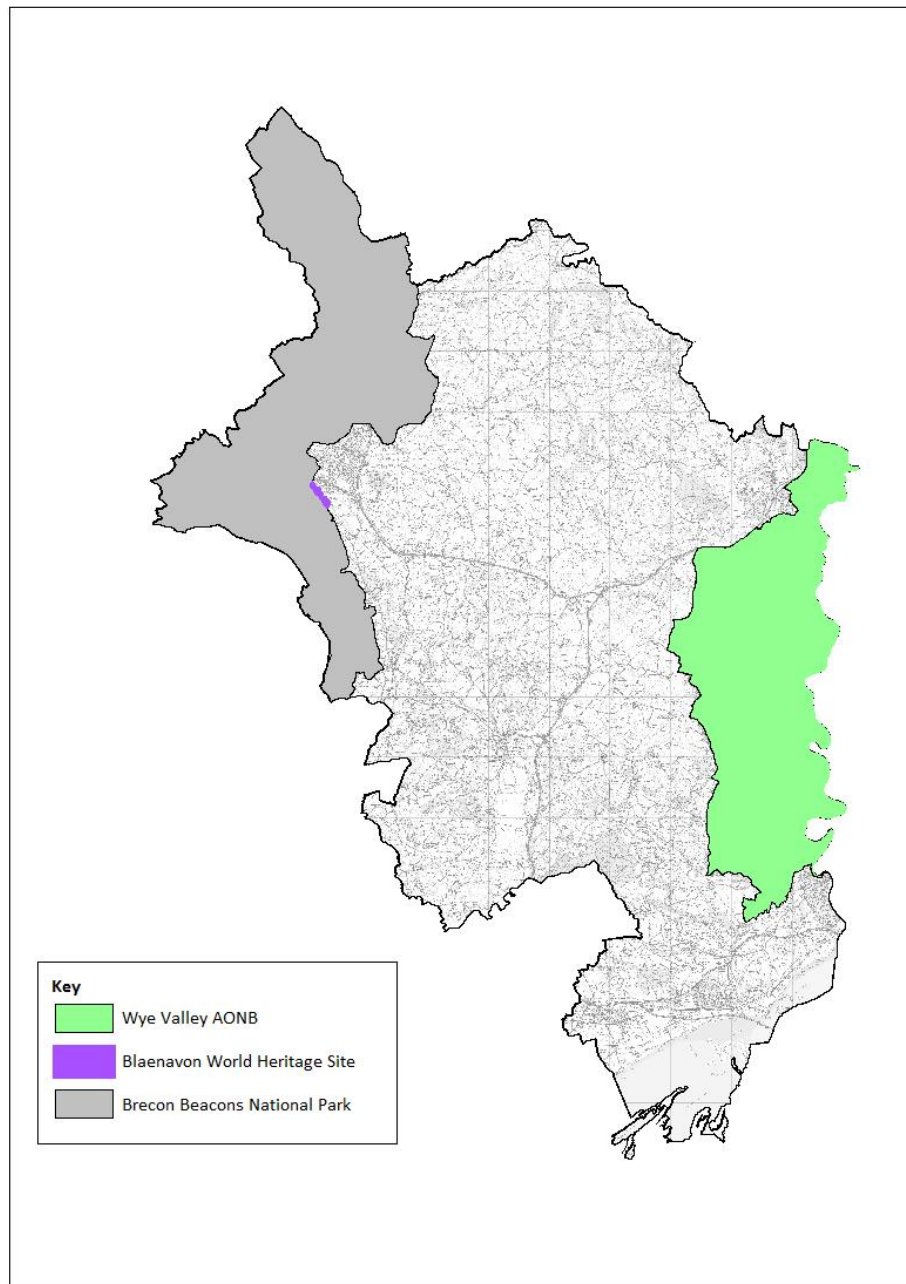
7.5 Landscape

Monmouthshire has a rich and diverse landscape stretching from the coastline of the Gwent Levels in the south of the County, to the uplands of the Brecon Beacons in the north, and the picturesque river corridor of the Wye Valley in the east.

7.5.1 Nationally Designated Landscapes.

The County incorporates part of the Wye Valley AONB shown in map 30 to the East of Monmouthshire and part of the Brecon Beacons National Park to the North West - both of which are nationally recognised designations of high quality landscape. There are also three landscapes of outstanding historic interest within Monmouthshire- Blaenavon, the Gwent Levels and the Lower Wye Valley. The portion of the Brecon Beacons National Park (BBNP) located in Monmouthshire covers some 14,880 hectares, which accounts for approximately 17% of the County. The BBNP Local Planning Authority exercise the development plan and development control functions in this part of the County but the impact of development on the setting of the National Park is an important consideration near the north-western boundary of the Monmouthshire Local Planning Authority area. The part of the Wye Valley AONB located within Monmouthshire covers approximately 11,710 hectares and accounts for approximately 16% of the Monmouthshire LDP area. A small portion of the Blaenavon World Heritage Site (approximately 20 hectares) also lies within the Monmouthshire local planning area.

Map 30: Internationally and Nationally Designated areas within Monmouthshire



Source: Monmouthshire Local Development Plan

7.6 Key Issues arising from a review of the Baseline Characteristics

Monmouthshire has a large number of designated and non-designated heritage assets, many of these provide attractive places to live and are important to the tourist economy of the County. In addition the Welsh language is an important component of Welsh national identity and culture. As such, the future well-being of the Welsh language is an important consideration. The following are the key issues to arise from a review of the baseline characteristics of the County:

Cultural and Heritage Assets

- Statistics show that whilst the Welsh language does not currently play a significant role in the County, with less than 10% of residents able to speak Welsh, this figure has risen since the 2001 Census (up 0.2%).
- Monmouthshire has a rich cultural heritage, including 31 Conservation Areas, 44 Historic Parks and Gardens, 169 Scheduled Ancient Monuments and over 2,140 Listed Buildings. There is a need to preserve, protect and enhance these cultural assets.
- An integral element of Monmouthshire's distinctive settlement pattern is its historic towns and villages and their relationship with the surrounding rural areas. The Adopted LDP area has also experienced substantial suburban expansion especially along the M4 in the south of the County, with growth pressures in this area likely to increase as a result of the imminent removal of the Severn Bridge Tolls and the opportunities associated with the Cardiff Capital Region City Deal.

Landscape

- Monmouthshire has a rich and diverse landscape, which incorporates parts of the Wye Valley Area of outstanding Natural Beauty, the Brecon Beacons National Park and the Blaenavon Industrial Landscape World Heritage Site. The County's beautiful landscapes and cultural heritage are part of what makes Monmouthshire special.
- There is a need to protect and enhance the landscape assets of the County, protecting the key views and the visual amenity of both the settlements and the wider countryside, whilst balancing this against the need to provide a range and choice of appropriate development to address the challenges Monmouthshire faces. As these assets extend beyond the boundary of the LDP area this protection incorporates cross-boundary landscapes.

8. A Globally Responsible Wales

8.1 Introduction

This section provides baseline data relating to the following well-being goal:

‘A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.’

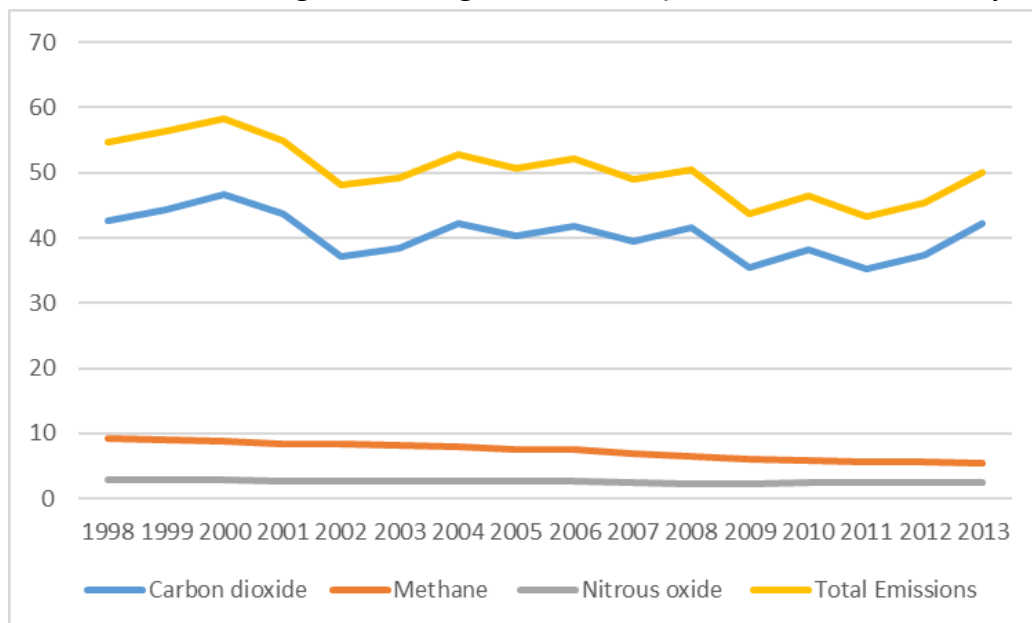
Essentially this well-being goal is a cross cutting goal which relates to all of the ISA topics. However, for the purposes of this report, the data in this section relates primarily to:

- Greenhouse Gas Emissions;
- Climatic Factors; and
- Flooding.

8.2 Greenhouse Gas Emissions

8.2.1 Emissions of greenhouse gases in Wales

Chart 39: Emissions of greenhouse gases in Wales (million tonnes carbon equivalent)



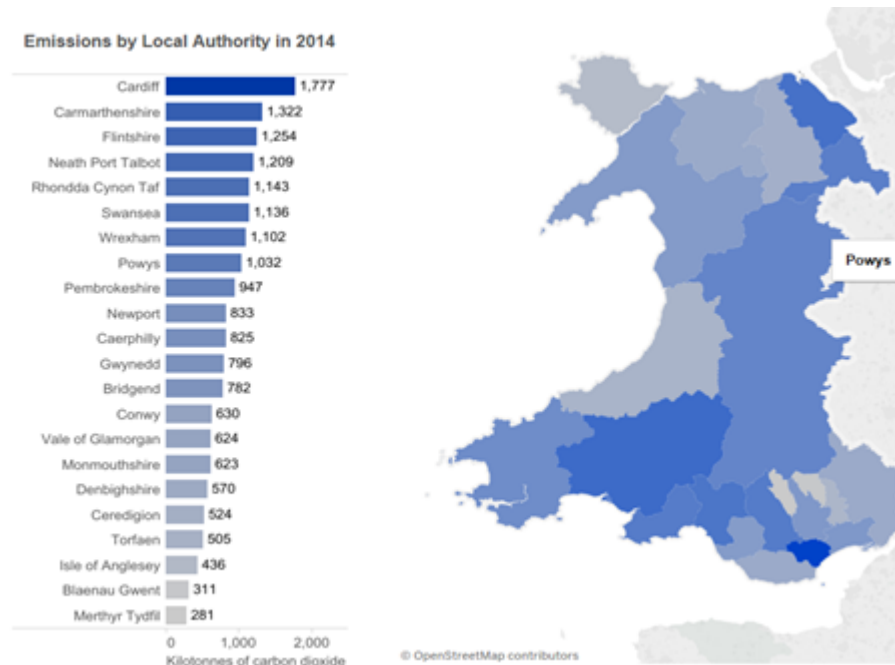
Source: Stats Wales (Accessed 05/09/2018)

Chart 39 shows the emissions of greenhouse gases in Wales. The overall effect since 1998 has been a decrease in total emissions of 8.5%. There were however increases in the early to mid-2000s within Wales. Equally, most recently in 2013, total emissions in Wales have risen 15.5% since 2011. The UK figures are more advanced than those for Wales and therefore cannot be compared directly, however, these show a 24.6% reduction in the Basket of greenhouse gas emissions for the UK between 1998 and

2013. There is no local or regional comparator data available since 2013, which is therefore considered to be a data gap.

8.2.2 Emissions of CO₂ in Wales

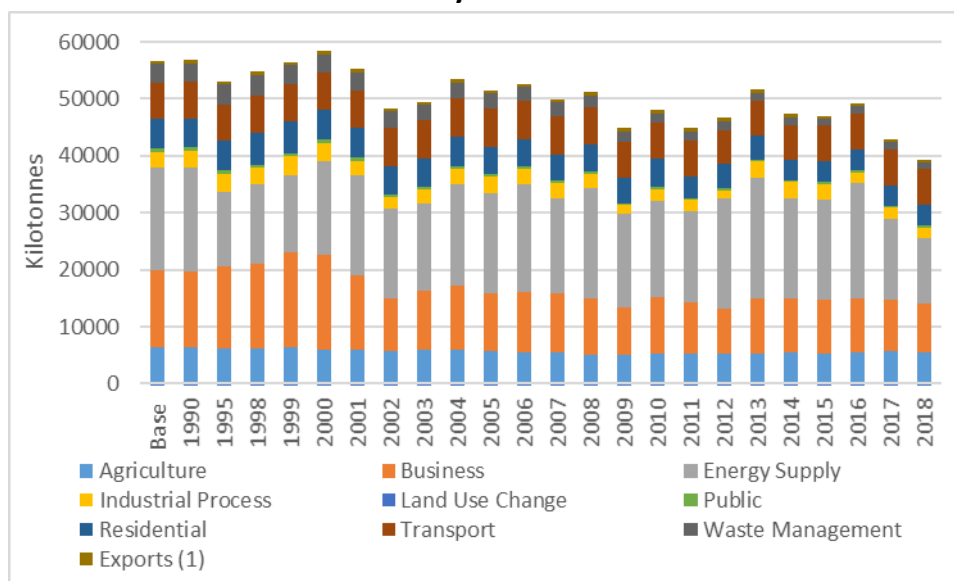
Map 31: Total Welsh CO₂ emissions 2014



Source: Welsh Government Statistics and Research. Accessed 05/09/2018

Map 31 above shows how carbon dioxide emissions varied across Wales in 2014, as expected, the most emissions in 2014 were recorded in Cardiff, and in more built up areas in general.

Chart 40: Emissions of CO₂ in Wales by Source



Source: StatsWales - (Accessed- 20/05/2021)

Chart 40 indicates that emissions of Greenhouse Gases vary on a year by year basis although the sources are generally consistent. Total CO₂ emissions from Wales have reduced by 31% between 1990 and 2018. These emission reductions are a result of a decline in manufacturing emissions (e.g. in iron and steel, bulk chemical production) in the Business and Industrial Process sectors, efficiencies in energy generation and business sector heating, the use of natural gas to replace some coal and other fuels as well as abatement in some chemical industries. Residential sector emissions and Transport emissions have not reduced markedly since the Base Year due to increasing population and increasing demand for heating and transportation despite improvements in energy efficiency of vehicles and housing.

8.2.3 Emissions of CO₂ in Monmouthshire

Table 43 below outlines CO₂ emissions in 2018 for Wales and Monmouthshire. Emissions in 2018 totalled 23,623.39 ktCO₂ for Wales and 634.5 ktCO₂ for Monmouthshire. In Monmouthshire in 2018 over half of all emissions (54.5%) were from transport. In Wales, the largest proportion of emissions came from industry and commercial emissions (51%). In 2018, emissions per capita for Monmouthshire were 6.7 tonnes of CO₂ per resident compared to 7.5 for Wales. Emissions per capita in Monmouthshire has decreased from 8.7 in 2010 to 6.7 in 2018.

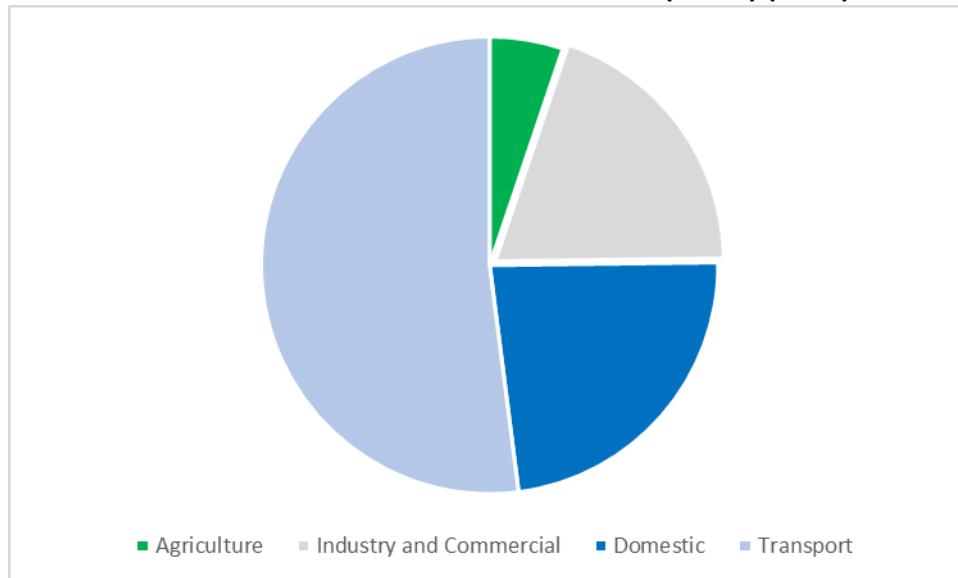
Table 43: Emissions summary for Wales and Monmouthshire, 2018 (kt CO₂)

Sector Name	Wales	Monmouthshire
Agriculture Emissions	659.3 (2.8%)	34.5 (5.4%)
Industry and Commercial Emissions	12040.09 (51%)	130.4 (20.6%)
Domestic Emissions	4892.4 (20.7%)	154.1 (24.3%)
Transport Emissions	6,314.8 (26.7%)	345.8 (54.5%)
Land Use and Land Use Change & Forestry	-283.2 (-1.2%)	-30.2 (-4.7%)
Total	23623.39	634.5
Emissions Per Capita	7.5	6.7

Figure in Brackets is the proportion of total emissions for 2018.

(Source: DECC: UK Local Authority and Regional Carbon Dioxide Emissions 2005-2018)

Chart 41: CO₂ emission estimates in Monmouthshire (ktCO₂) (2018)

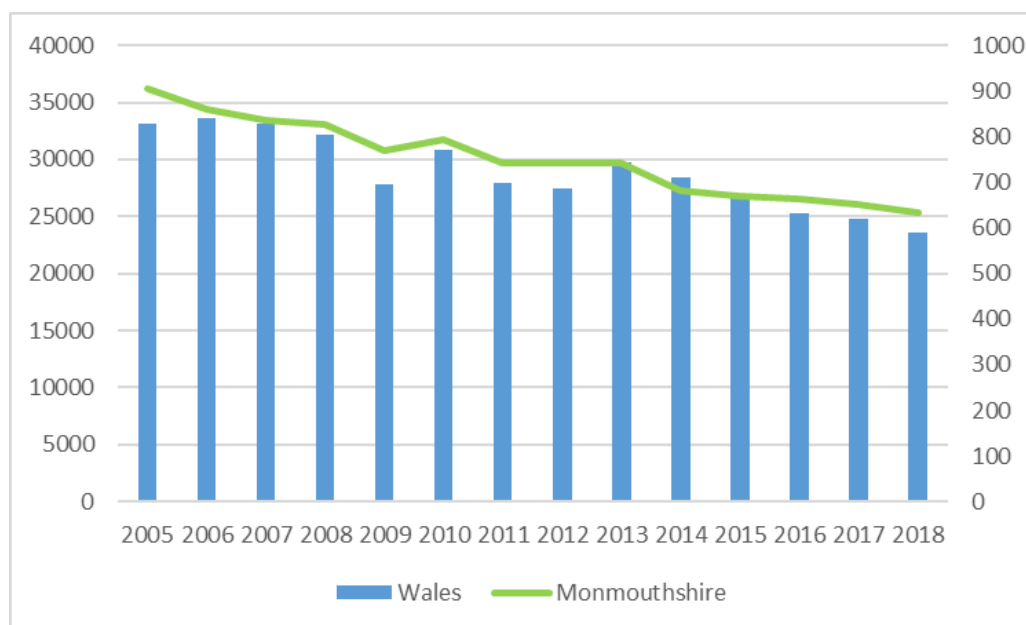


Source: DECC: UK Local Authority and Regional Carbon Dioxide Emissions 2005-2018 (Accessed 21/05/2021)

The CO₂ emissions per capita of Monmouthshire residents in 2005 was 9.2 tonnes, this had reduced to 7.4 tonnes by 2011, and was 6.7 tonnes in 2018. This is compared to an average for the South Wales region of 5.4 in 2018 and 7.5 tonnes for Wales as a whole. There were five authorities with CO₂ emissions per capita higher than Monmouthshire, including Wrexham, Newport, the Vale of Glamorgan, Flintshire and Neath Port Talbot which had 45.5 CO₂ emissions per capita. (Source: DECC: UK Local Authority and Regional Carbon Dioxide Emissions 2005-2018 and InfoBase Cymru).

Chart 42 illustrates total CO₂ emissions in both Wales and Monmouthshire between 2005 and 2018. During this period, total CO₂ emissions in Wales fell by 28.7% whilst in Monmouthshire CO₂ emissions fell by 26.2%. In 2018, the largest proportion (54.5%) of Carbon Dioxide emissions in Monmouthshire were from Transport, where in Wales, industry and commercial activities accounted for 51% of emissions. In 2018, Monmouthshire had 6.7 tonnes of emissions per capita, compared to 7.5 tonnes for Wales.

Chart 42: Total CO2 Emissions



Source: DECC: UK Local Authority and Regional Carbon Dioxide Emissions 2005-2018 and InfoBase Cymru (Accessed 21/05/2021)

8.3 Climatic Factors

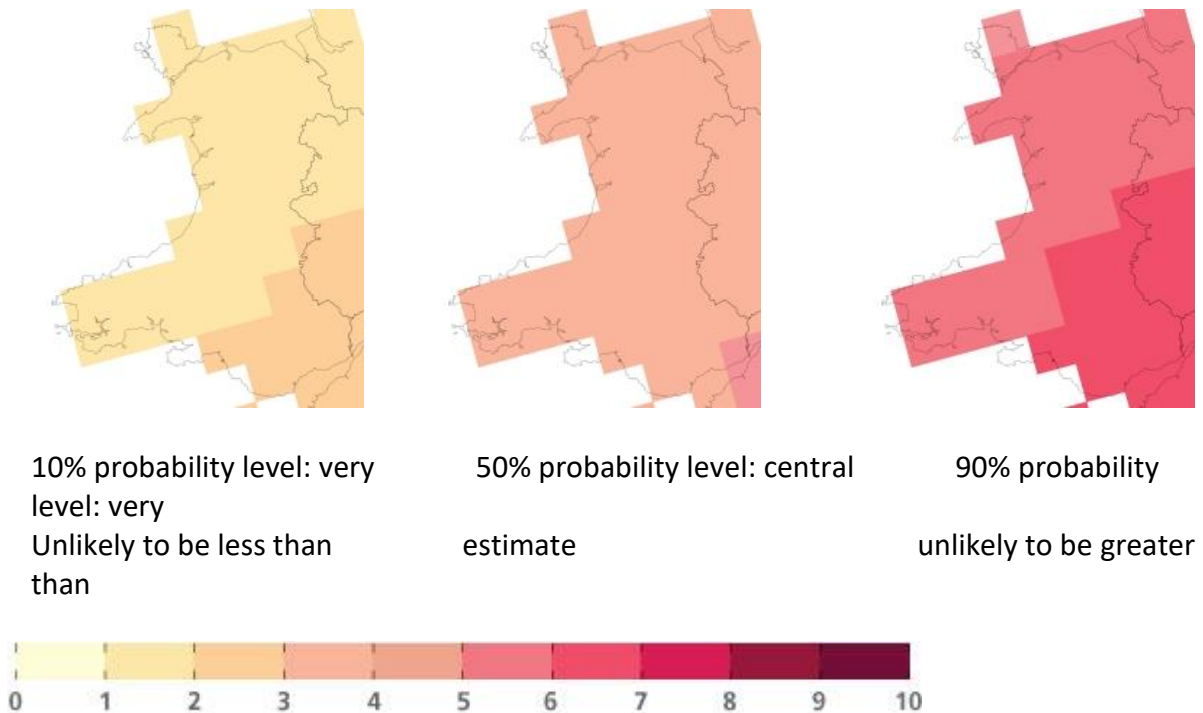
Both natural and human factors affect global climate. Natural causes can include interactions between the ocean and the atmosphere, changes in the Earth's orbit and volcanic eruptions. Humans influence global climate by releasing greenhouse gases (for example carbon dioxide and methane) into the atmosphere. These gases absorb energy that is radiated from the Earth's surface, warming the atmosphere and increasing temperatures globally. The Intergovernmental Panel on Climate Change (IPCC) concluded in 2007 that most of the observed increase in global average temperatures since the mid-20th century is very likely to be due to the observed increase in man-made greenhouse gas concentrations. Average annual temperatures for Wales largely reflect those for the UK. Welsh temperatures over land between 2005-2014 were 0.9°C warmer than the 1961 – 1990 average, where in the UK temperatures have risen by just over a centigrade since the 1950s (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales). The UK Climate Projections from 2009 predict that under a medium emissions scenario, mean summer temperatures will increase by 0.9°C-4.5°C by the 2050s (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales). Climate change can be reduced by mitigation; by reducing the net emissions of greenhouse gases, notably CO₂. However, some impacts can be tackled through adaptation.

8.3.1 Temperature

Map 32 shows the view of future change in summer temperature in Wales under a medium emissions scenario. It is evident from this that even under the 10% probability level Monmouthshire is located in an area where temperatures are likely to be higher

than for much of the rest of Wales. No specific data for the County is however available and is therefore considered to be a data gap.

Map 32: Change in summer mean temperature for Wales, 2080s, under a Medium emissions scenario

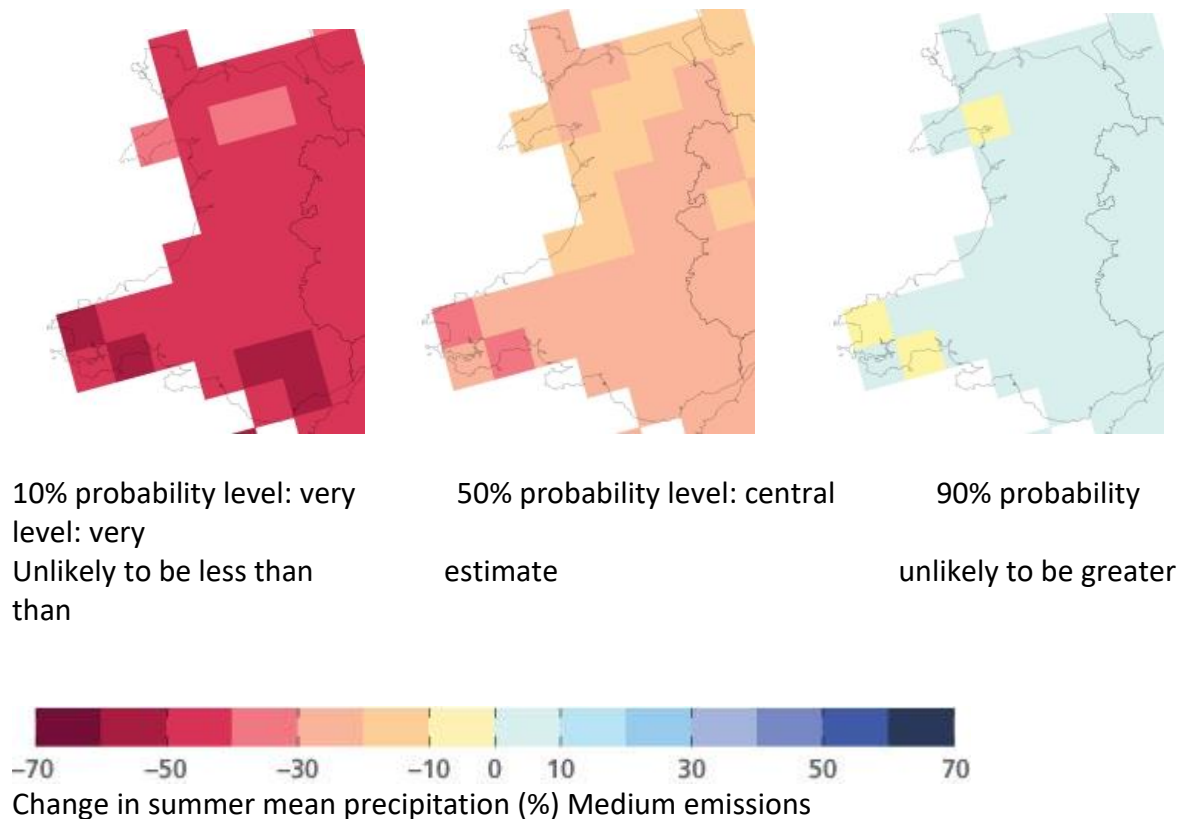


Change in summer mean temperature (°C) Medium emissions

(Source: <http://ukclimateprojections.metoffice.gov.uk/24120?emission=medium> (Accessed 17/09/18))

8.3.2 Summer Precipitation

Map 33: Change in summer mean precipitation for Wales, 2080s, under a Medium emissions scenario



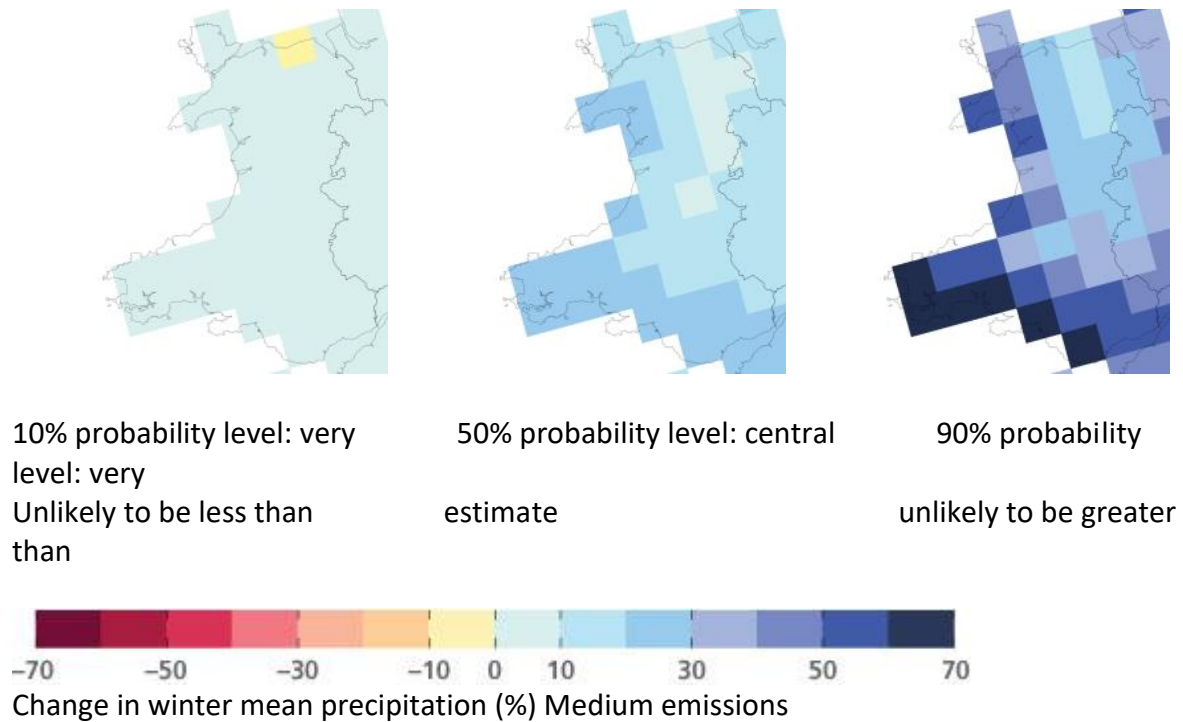
(Source:<http://ukclimateprojections.metoffice.gov.uk/24120?emission=medium>)(Accessed 17/09/18)

Map 33 shows the view of future change in summer precipitation in Wales under a medium emissions scenario. It is evident from this that even under the 10% probability level Monmouthshire is located in an area where summer precipitation is likely to be less than for much of the rest of Wales. No specific data for the County is however available and is therefore considered to be a data gap.

8.3.3 Winter Precipitation

Map 34 gives the view of future change in winter precipitation in Wales under a medium emissions scenario. The medium emissions scenario shows a change across the whole of the Country at the 50% probability to the 2080s period of between 10% and 30%. No specific data for the County is however available and is therefore considered to be a data gap.

Map 34: Change in winter mean precipitation for Wales, 2080s, under a Medium emissions scenario



(Source:<http://ukclimateprojections.metoffice.gov.uk/24120?emission=medium>
(Accessed 17/09/2018))

8.3.4 Habitat and Species Loss and Influx

The abundance of species are increasing and decreasing at sites and a range of species seem to be changing distributions in ways correlated with climate change. Within Wales, there is evidence that various species are travelling north and uphill, where new colonies originally from the South are forming. Equally, migratory birds are migrating shorter distances outside of the breeding season, where many have relocated to the north east in search of new feeding grounds, where warmer –milder winters help facilitate this (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales). Conversely, an increase in temperatures has positively affected terrestrial invertebrates, however, wet and warm winters have affected the numbers of both butterflies and moths. Furthermore, there is a significant risk to species at the margin of their southern range, who are retreating northwards, where species that are unable to adapt to a lack of suitable habitats may be lost from lower ground (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales).

Some of the most dramatic changes may occur on the coast, estuaries and tidal rivers, as a result of sea-level rise intensified by extreme weather events (Source: Defra 2007). The habitats and species found within the River Wye, River Usk and the Severn Estuary could therefore be affected due to climate change, within Monmouthshire this is likely to include wintering waders and ducks.

There is however a degree of uncertainty about the actual scale and future responses of individual species and habitats to a changing climate, due to a combination of issues and will be heavily dependent upon the capacity of species to disperse in response to climate change, which is difficult to predict (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales). It is considered therefore that there is a data gap in relation to the effects of climate change on the loss and influx of habitats and species.

8.3.5 Habitat Connectivity

Habitat connectivity and landscape permeability have been recognised as key to helping species dispersal and enhancing resilience. Habitat connectivity describes the spatial links between core areas of suitable habitat. It has been shown experimentally that physically connecting fragmented habitats or making the intervening habitat less hostile for example by reducing the intensity of land use, improves dispersal for some species (Source: Defra 2007). Within Monmouthshire examples of this can be found through the projects undertaken by Gwent Wildlife Trust on landscape management. Other than the work undertaken by Gwent Wildlife Trust there is no trend data available on habitat connectivity.

8.3.6 Peak Oil

The Peak Oil concept refers to the point when the maximum amount of oil that can be extracted globally is reached. Thereafter, production will tail off as remaining reserves become more difficult and more expensive to harvest. It is estimated that global oil supplies will fall by around 22% by 2020, and by approximately 50% by 2035. Approximately around a quarter of the UK's energy currently comes from oil compared to a global average of approximately 36% (Source: Soil Association 2008). An article in the Guardian from September 2020 reports that a BP energy report claims that demand for oil and fossil fuel had peaked and that there would subsequently be a period of sustained decline.

However, it is suggested that the Peak Oil concept could result in a large increase in fuel costs which as a consequence could have the following impacts: make it socially unacceptable to use cars for short journeys, make it difficult economically for most people to commute over significant distances- bringing the need for people's homes and places of work to be close together, increase domestic fuel prices with a knock-on effect that could increase the gap between rich and poor people (Draft Monmouthshire Community Strategy 2008).

There are however suggested positive aspects of peak oil which includes: the use of alternative clean fuels which could help control the pollution of fossil fuel use as well as mitigate global warming, a move to self-sufficiency and more natural systems which could result in a rise in agricultural input prices reducing the use of fertilisers, more organic farming practices which could lead to less processed food and more whole food.

Transition Towns/communities work together to look at what they can do to respond to the challenges and opportunities of peak oil and climate change. Within Monmouthshire, Abergavenny, Chepstow and Monmouth are designated Transition Towns and, Caldicot and Grosmont are currently ‘mulling over’ the idea of becoming a Transition Town (Source: www.transitionnetwork.org 2018). There is currently no data relating to peak oil and the effect it will have in Monmouthshire, this is therefore considered to be a data gap.

8.3.7 Agriculture and Forestry

Extra CO₂ is likely to have a fertilising effect and increase plant growth through combined effects of interaction of temperature rise and altered patterns of precipitation and evapotranspiration. This is likely to benefit cereal crops, however increased temperature will shorten grain ripening and depress the yield. The ‘UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales’ suggests that a warmer climate may facilitate an increase in the land used for agriculture in Wales. However, this will vary across different regions. Those limited by climatic conditions may see an increase in agricultural land due to enhanced land capacity and longer and warmer summers, however an increase in soil aridity may decrease productivity. Projections suggest that the best grades of agricultural land in Wales and England (1-3a), will decrease from 37% to 7% by the 2080s. Equally the area of grade 4 land is expected to increase from 2% to roughly 66%. These projections are based upon a high emissions scenario and affected by factors such as soil aridity and the frequency of droughts (UK Climate Change Risk Assessment 2017 Evidence Report: Summary for Wales).

As of 2018, agriculture accounts for 2.8% of total greenhouse gases in Wales, and 5.4% in Monmouthshire. CO₂ emissions from the sector combined with the potential use of chemicals such as pesticides may have a negative cumulative effect on the environment. However, there is a data gap in relation to the effects of agriculture and climate change in Monmouthshire.

8.3.8 Built Heritage

The risk of flooding to archaeological sites in low-lying areas like the Gwent Levels is likely to be increased. Other built heritage may suffer damage from increased severity in winter storms and in dry summers, subsidence as the ground dries out (Source UKCIP 2000). There is however a data gap in relation to the effects of climate change on the built heritage of Monmouthshire.

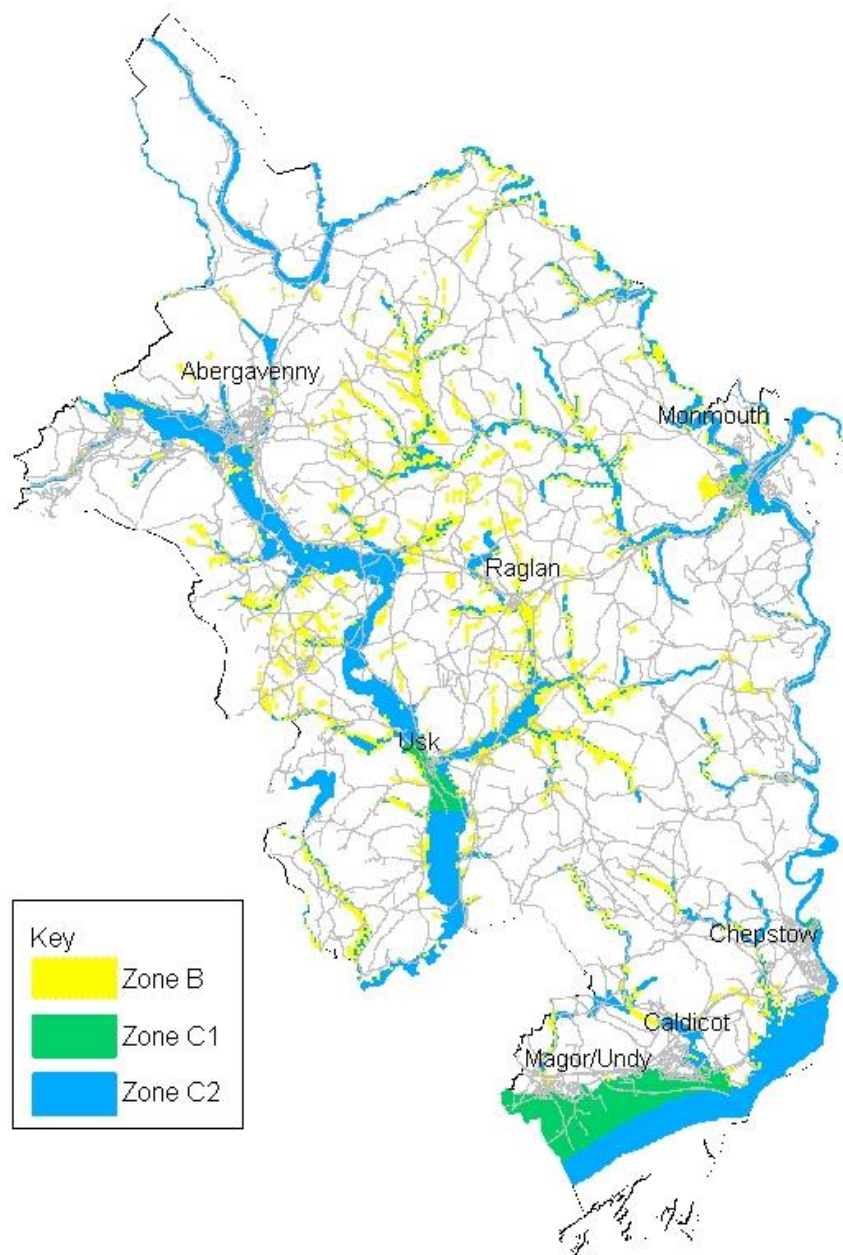
8.4 **Flooding**

- 8.4.1 Technical Advice Note (TAN) 15 published by the Welsh Assembly Government categorises areas of floodplain within Wales, Map 35 identifies the areas of floodplain within Monmouthshire. Zone B relates to areas that have known to have been flooded in the past, evidenced by sedimentary deposits. There are a number of these areas within Monmouthshire adjacent to the historic river courses and waterways. Zone C1

identifies areas of the floodplain that are developed and served by significant infrastructure, including flood defences. Zone C2 identifies areas of the floodplain without significant flood defence infrastructure, TAN15 states that only 'less vulnerable' forms of development should be considered within these areas.

A large proportion of both Zone C1 and Zone C2 floodplains are identified to the South of the County in the Gwent Levels. There is significant C2 floodplain in Monmouth, the Wye Valley (including Llandogo and Tintern) and Chepstow which are all located alongside the River Wye and its tributaries to the east of the County. There is also significant C2 floodplain in the settlements of Abergavenny, Llanfoist, Llangybi and Usk, these settlements are located adjacent the River Usk in the west of the County. There are however flood defences within the towns of Chepstow, Monmouth and Usk.

Map 35: Areas of flooding within Monmouthshire, with and without flood defences



Source: Welsh Assembly Government Technical Advice Note 15.

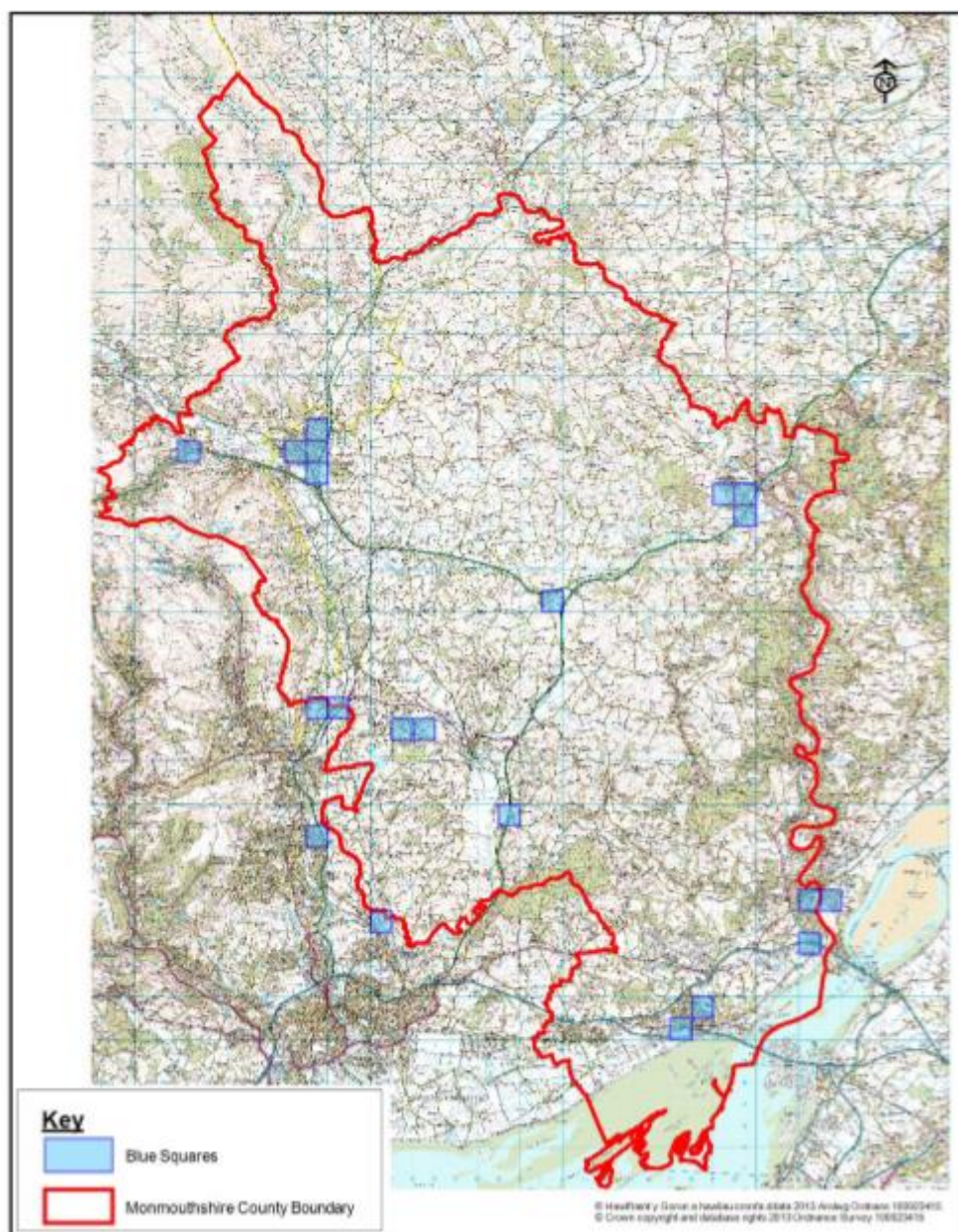
8.4.2 Flood Risk

It is predicted that the sea level will rise by about 40cm by 2080 around the Welsh coasts, the frequency of flooding of low-lying areas like the Gwent Levels is therefore expected to increase (Source: UKCIP 2000).

Increased winter storms and intensity of daily precipitation will lead to the capacity of drains and sewers being exceeded; this will not only result in an increase in flooding but also the lack of replenishment of aquifers and reservoirs, as water is often diverted to rivers in these situations.

The Monmouthshire County Council Flood Risk Management Plan 2016 suggests that of the 92,994 people in the county, 543 are at high risk or 1 in 30 (3%) or greater chance of flooding, 801 are at medium risk or 1 in 100 (1%) chance of flooding, whilst 4,782 people are at low risk or 1 in 1000 (0.1%) chance of flooding. In addition, the plan suggests that those communities most at risk of 1 in 1000 year surface flooding were Caldicot with 1159 residents and 493 properties at risk, Abergavenny with 1135 residents and 483 properties at risk, and Chepstow with 947 residents and 403 properties at risk. Monmouth, Magor with Undy, Llantilio Pertholey, Llanfoist Fawr, Usk, Llanelly and Portskewett all feature as part of the top 10 communities in this category. In terms of flooding from main rivers and the sea, those communities at most risk from a 1 in 1000 year flood, are Monmouth with 3443 residents and 1465 properties at risk, Abergavenny with 2374 residents and 1010 properties at risk and Usk with 1659 residents and 706 properties at risk.

Map 36: Areas of Concentrated Flood Risk



Source: Natural Resources Wales - (Accessed 17/09/2018)

Map 36 above, indicates areas of Monmouthshire of concentrated flood risk, and where flood risk exceeds the defined threshold, where ‘a minimum of 200 people at risk of flooding; a minimum of 20 businesses at risk of flooding and 2 or more critical services are at risk of flooding’. The map produced by NRW identifies 21 of these areas, 17 of which were within the Monmouthshire County Boundary.

8.4.3 Catchment Abstraction Management

The River Usk and River Wye both have Catchment Abstraction Management Strategies (CAMS) which set out how water abstraction will be managed, by outlining where water is available and where current rates of abstraction need to be reduced.

The Usk CAMS covers 1169km² and is spread across 5 counties including Monmouthshire, it is one of the Environment Agency's largest catchments and includes the River Usk and its tributaries but not the Usk Estuary. In the Usk CAMS, water is taken from both surface water and groundwater resources. Water is abstracted for public water supply, navigation, agriculture, commerce/industry, domestic use, spray irrigation, horticultural watering, lake/pond maintenance, fish farming and hydropower generation.

The 2017 Usk Abstraction Licensing Strategy suggests that Natural Resources Wales believe that surface water is very limited and is protected from abstraction, which should only be carried out at high flows.

The River Wye CAMS covers an area of 4171km² and includes a number of substantial tributaries including the Monnow. The 2015 Wye Abstraction Licensing Strategy suggests that Natural Resources Wales have concerns about surface water availability during low flows, where water for consumptive abstraction may only be available at medium to high flows.

8.5 Key Issues arising from a review of the Baseline Characteristics

Monmouthshire has a contribution to make to Wales as a globally responsible nation. In particular energy consumption and greenhouse emissions are two things that occur locally through homes, businesses and transport but contribute to global consequences. The following are the key issues to arise from a review of the baseline characteristics of the County:

- The number of low carbon energy generation projects in Monmouthshire has risen to over 4,000 in 2016. There is a continued need to encourage renewable and low carbon energy generation in appropriate locations and the incorporation of appropriate renewable energy schemes within new developments.
- Monmouthshire's carbon and ecological footprints are high when compared to both neighbouring authorities and Wales as a whole.
- Parts of the County, mainly in the south and those areas adjacent to major water courses, are vulnerable to flooding, a risk that is increasing through climate change and rising sea levels. In 2016 there were some 1,344 people and 292 properties in the County at high (1 in 30 year) or medium (1 in 100 year) at risk of flooding.