Appendix 2 – Baseline information

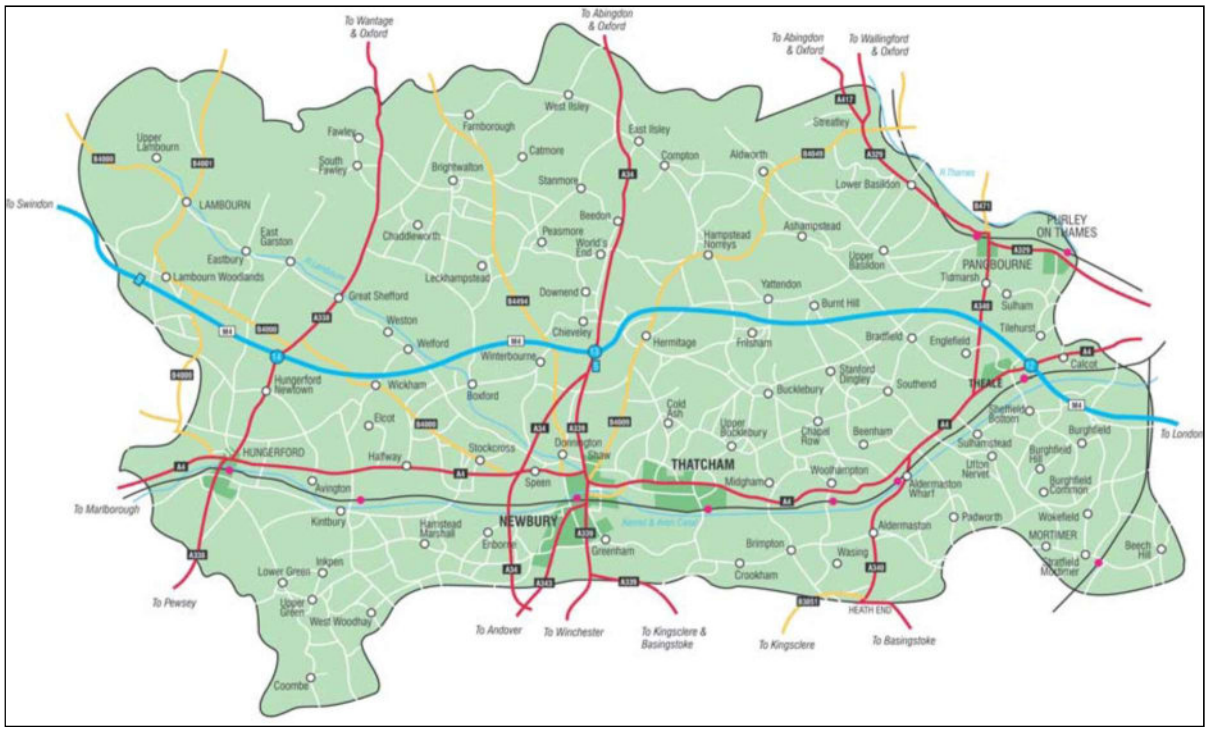
SEA Guidance recognises that data gaps will exist but suggests that where baseline information is unavailable or unsatisfactory, authorities should consider how it will affect their assessments and determine how to improve it for use in the assessment of future plans. The collection and analysis of baseline data is regarded as a continual and evolving process, given that information can change or be updated on a regular basis.

Not all the relevant information was available at the local level and as a result there are some gaps within the data set, but it is considered that the available information provides a sufficiently comprehensive view of sustainability within the plan area.

Context

West Berkshire is located in the South East of England, within the former administrative area of the county of Berkshire. It is a Unitary Authority and covers an area of 704 square kilometres, extending from Hungerford in the west to Calcot in the east. In land use terms the area is predominately rural in character, with approximately 74% of the land area making up part of the North Wessex Downs Area of Outstanding Natural Beauty. Newbury, Thatcham, Hungerford, Theale, Purley, Tilehurst, Calcot and Burghfield Common are the largest settlements in the area.

Figure 1 - West Berkshire District



Communities and Wellbeing

Population

In 2011 the Census showed West Berkshire with a population of 154,000 with an estimation by ONS mid-year 2018 of 158,500. Approximately 73% of the population is concentrated in the Kennet Valley at strategic points along the A4 (Newbury, Thatcham and Hungerford) and on the western side of Reading. The remaining area comprises smaller settlements sitting within a diverse landscape. West Berkshire has by far the most dispersed population of all the unitary authorities in Berkshire with 255 people per km2 (Source: West Berkshire District Facts and Figures 2015) compared to 637 km² for Berkshire as a whole.

The average age (2014) in West Berkshire was 40.4 years, slightly higher than England at 39.7 years of age. 25% of the population is under the age of 20, with a higher prevalence of teenagers. The 20 to 34 years age group makes up 16% of the population; conversely older working age groups (35-64) makes up 42% compared to 39% nationally. 17% of the West Berkshire population is of retirement age (65 years and over) similar to the national average[1]. The dependency ratio (dependants/working population) for the District is 64.4% compared to 60.7% for England confirming the already relatively higher level of need for services for older and younger people.

When compared nationally, there is a significantly lower proportion of people in West Berkshire who define themselves as coming from a black or ethnic minority (BME) background (4.5%[2] of West Berkshire residents as a whole, compared to 13% of people in England and Wales). Although this is a relatively small proportion of the total population, this amounts to some 7,000 residents in the District.

In response to the Census 2011, 164 people in West Berkshire self-identify as Gypsy or Traveller. The majority of these people live within two authorised sites; a privately owned site in Aldermaston with 39 pitches, and a site managed by the Council in Burghfield with 15 pitches. Although some Gypsies and Travellers live a nomadic lifestyle, which means they live in different places around the country, others live on the same site for extended periods of time. There is one site at Enborne for Travelling Show people providing 24 plots.

Future trends: In the future, West Berkshire is projected to have a larger proportion of older people and this is expected to be a key driver of change in the housing market in the future. The latest ONS projections[3] show an increase in those over 65 from 20.1% of the population in 2018 to 28.8% in 2037. The number of people aged 85+ is projected to more than double over the same period, which will accentuate the significance for adult social care provision within the district. As people get older, it becomes harder to remain independent because of increasing risk of ill health, poverty and social isolation. Most people would prefer to remain living in their own homes as long as possible. In many communities facing multiple deprivation, stress, isolation and depression are all very common, and low levels of social integration and loneliness significantly increase mortality. Planning therefore has some influence for enabling good mental health and wellbeing through helping to create access to quality housing[4] and green space and facilitating opportunities for interaction through other community spaces and attractive living environments.

By contrast, the population aged 20 – 34 is projected to decrease by almost 0.4% in the District to 2037 whilst it is due to increase by 2.8% in England.

The ONS projections take no account of local policy which may influence growth in the District. The Updated Housing Needs Evidence[5] includes a bespoke projection which assumes housing growth in line with the current Standard Method for calculating Local Housing Need (LHN). This shows an increase of 7.2% in total population over the period 2018 to 2036 and an increase of 114% in those over 85, compared to only 2.3% in the 20 – 34 age group.

Health

The social link of health with other topics within this Appendix highlights the inter-relationship of a number of sustainability issues identified in the baseline information including the protection of existing and delivery of new housing and community facilities, deprivation, education and public services, environmental qualities, open space and recreation provision; recognising that their collective roles can promote healthy lifestyles.

[1] West Berkshire District Facts and Figures 2015 based on ONS mid-year estimate 2014
[2] Annual Population Survey, October 2014 to September 2015
[3] ONS, Subnational Population Projections 2018-based
[4] Housing for Older People, Second Report of Session 2017-19; Communities and Local Government Committee (5 February 2018).
[5] Updated Housing Needs Evidence: Iceni, May 2020

The health of people in West Berkshire is generally better than the England average[6]. According to the 2011 Census, 86% of people stated that their health was 'good' - compared with 84% of people in the south east and 81% of people nationally and 1% up on 2001. West Berkshire is one of the 20% least deprived districts/unitary authorities in England, however about 10% (3,000) of children live in low income families. Life expectancy for both men and women is higher than the England average.

Life expectancy is 4.9 years lower for men and 6.6 years lower for women in the most deprived areas of West Berkshire than in the least deprived areas; a significant difference for both sexes.

The rate of alcohol-related harm hospital stays is 460*, better than the average for England. This represents 691 stays per year. The rate of self-harm hospital stays is 215*. This represents 327 stays per year. The rate of smoking related deaths is 239*, better than the average for England. This represents 197 deaths per year. Estimated levels of adult smoking and physical activity are better than the England average. Rates of sexually transmitted infections and TB are better than average. Rates of violent crime, long term unemployment, early deaths from cardiovascular diseases and early deaths from cancer are better than average. Levels of teenage pregnancy, GCSE attainment, Breast feeding initiation and smoking at time of delivery are better than the England average.

**rate per 100,000*

Childhood obesity is one of the most serious global public health challenges of the 21st Century (World Health Organisation 2013) and its reduction is a priority in West Berkshire. Obese children and adolescents are at increased risk of health problems, and are also more likely to be obese as adults. Once established obesity is difficult to address, so prevention and early intervention are very important so that obesity does not continue into adulthood. Obesity has been rising rapidly in children in England over the past 20 years. Today nearly a third of children aged 2 to 15 are overweight or obese[7] and younger generations are becoming obese at earlier ages and staying obese for longer. Obesity is a consequence of poor diet and lack of physical activity. A range of socioeconomic factors contribute to diet and physical activity such as the environment for example road safety, air pollution and the food environment including the quality and availability of fresh fruit and vegetables. Research indicates that increased access to unhealthier food retail outlets is associated with increased weight status in the general population, and increased obesity and unhealthy eating behaviours among children residing in low income areas.[8] Adults are often able to make choices about the environment they live in and the diet they eat. Conversely, children often do not have the autonomy to make their own choices and may not understand the long term consequences of their behaviour. For this reason it is important that local strategies and plans, (eg the Health and Wellbeing in Schools Programme) promote healthier lifestyles and choices to help tackle overweight and obesity. The percentage of children in West Berkshire that are classified as overweight in Reception (aged 4-5 years) is 18.7% and at Year 6 (aged 10-11 years) it is just under 26.6%[9]. In 2015/16 59.2% of adults in West Berkshire were classified as overweight or obese (Public Health Outcomes Framework). West Berkshire has a lower percentage in both compared to the South East and England average.

There is a strong correlation between deprivation and obesity prevalence nationally. Obesity prevalence of the most deprived 10% of the population is approximately twice that of the least deprived.

Other priorities in West Berkshire include reducing alcohol-related harm, promoting positive mental health & wellbeing, increasing Community Conversations to address local issues, and maximising independence.

The map below uses DCLG's Indices of Multiple Deprivation to show relative levels of deprivation across the district in terms of selected social care factors. These include relative ages of residents, proportion of people with a limiting long term illness, proportion of people whose health is "not good" and numbers of unpaid carers providing 20 hours or more care per week.

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[6] Public Health England West Berkshire Health Profile 2017

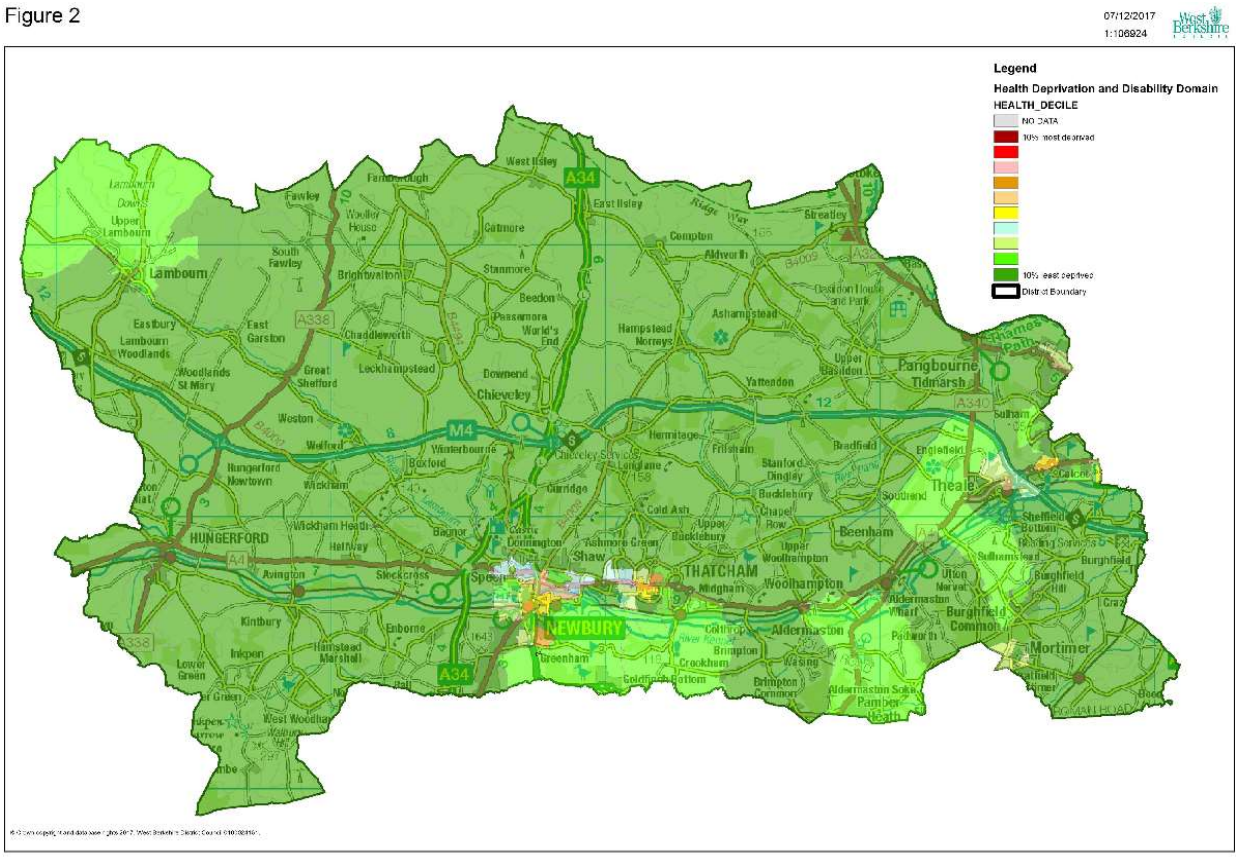
[7] HMG Childhood Obesity – A Plan for Action 2017

[8] Spatial Planning for Health. An evidence resource for planning and designing healthier places. Public Health England 2017

[9] National Child Measurement Programme Local Authority Profile

Figure 2 – Indices of Multiple Deprivation: Health Deprivation and Disability.

Figure 2



Source: DCLG Indices of Multiple Deprivation, 2015

Wards in the darker colours show the most deprived areas in the District in terms of health deprivation. We can see these are concentrated in some of the more urban areas in Newbury and Thatcham as well as the Reading fringe areas around Calcot and Purley on Thames. There are some more rural areas across the district which are ranked higher for health deprivation, including around Mortimer, Aldermaston and the Lambourn Valley. A lot of the wards on the Reading fringe do not feature significantly.

It is very difficult to provide accurate, definitive figures on the number of people with a disability in the district. There is no universal definition of disability and any information available could have been compiled in very different ways, depending on how it was collated and the definition used. However, data assembled for the Berkshire SHMA from POPPI[3] cites 5588 people 65 and over suffering from dementia and 15,482 with mobility problems in 2013.

Whilst there is information on the number of people supported by the council, it is much more difficult to confidently extrapolate this out to the overall prevalence of disabilities across the district. Given this caveat, the numbers of people supported through social care services (SCS) arranged by West Berkshire Council during 2011/12 are shown in the table below, together with comparative numbers from previous years.

Number of people supported through SCS arranged by WBC during 2011/12			
	2009/10	2010/11	2011/12
Adult with a physical/sensory disability	565	546	489
Adults with a learning disability	363	374	375
Adult with mental health problems	639	713	644
Older people	3315	3250	3096
Total	4882	4883	4604

Source: RAP P1 2011/12 (available on NASCIS)

Future trends: Nationally, we are living longer (including those with disabilities) and demand for long-term care needs is increasing: by 2026, it is expected that over 1.7 million more adults to have a need for care and support. Data from POPPI[10] website assembled for the SHMA for those over 65 with dementia and mobility problems, show both of the illnesses/disabilities are expected to increase significantly in the future, although this would be expected given the increasing population and the expectation of longer life. In particular, there is projected to be a large rise in the number of people with dementia (up 122%) along with a 104% increase in the number with mobility problems, the highest in Berkshire bar Wokingham. Older people living alone is projected[11] to rise from 9661 people over 65, to 15,306 living alone in 2030. There is likely to be an increased requirement for home adaptations or more specialised accommodation, such as specialist, sheltered or extra care housing and registered care provision, geared to allow as much independence as possible while supporting changing abilities

The Increase in numbers of adults with long term conditions, such as obesity, diabetes and depression are expected to carry on increasing. Overweight and obesity in adults are predicted to reach 70% by 2034[12].

Children with complex conditions are also living longer and those with learning disabilities have lifelong health and wellbeing needs. The pressure on health, mental health and social care services is growing and there is a need for more carers, better integrated services as well as a necessity for individuals and communities to play a pivotal role in maintaining good health and wellbeing. Locally, this is reflected in West Berkshire by an increase of 18% in the number of new contacts to social care when comparing 2011/12 to 2010/11.

It is acknowledged that people want quality services that meet the full range of individual need, more local care, and the ability to take greater control over their health whilst being supported to remain as independent as possible. Changes in population and communities mean that we are less likely to be part of a close knit family providing support. For isolated rural communities this may mean additional transport links to services and the increased availability and use of broadband and other ICT technologies to provide local access to information about health, social care, housing and other Council services.

Air quality

The Council monitors[13] air quality within West Berkshire. The principal source of air pollution in West Berkshire is exhaust emissions (Nitrogen dioxide NO_2) from road traffic.

Under the Environment Act 1995, Councils are required to review and assess air quality in their area. If any standards are being exceeded or are unlikely to be met by the required date that area should be designated an air quality management area and the Council must draw up and implement an action plan aimed at reducing levels of the pollutant.

[10] POPPI and demographic projections (linked to 2012 based SNPP) produced for Berkshire SHMA 2013
[11] POPPI (Projecting Older People Population Information) Website 2013/14
[12] Public Health England Applying All Our Health
[13] West Berkshire 2016 Air Quality Annual Status Report

National air quality objectives have been designated for priority pollutants - benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, particles (PM10), sulphur dioxide, ozone and PAH. These have been set on the basis of scientific and medical evidence on the health effects of each pollutant, and according to the practicability of meeting standards. In West Berkshire all the air quality objectives are generally being met except for nitrogen dioxide on some busy roads and intersections. As a result of this Air Quality Management Areas (AQMA) have been declared in Central Newbury and Thatcham. The associated Air Quality Management Plans (AQMP) have been developed and are being implemented. Overall levels of nitrogen dioxide have been reducing over the last 5 years, which could be associated with the improvement to emissions from vehicle exhaust as well as implementation of the AQMPs.

Future trends: Air quality will continue to be monitored across the district, and delivery of the AQMAs continues along with air quality assessments and mitigations appropriate to some development control applications. Land-use planning has an essential role in improving local air quality. Spatial planning can provide for more sustainable transport links between the home, workplace, educational, retail and leisure facilities, and identify appropriate locations for potentially polluting industrial development. The Local Transport Plan 3 (2011-2026) has a specific policy on Air Quality and sets out a long term 'mixed' strategy to provide the District with more sustainable travel choices linked to the Air Quality Action Plan. A key challenge has been identified to explore any link between the District Health profiles and air quality. And in the longer term climate change impacts on indoor and outdoor pollution will need to be considered.

Education

Over 29,000 school pupils in 82 schools and Pupil Referral Units are educated in West Berkshire (Source: SFR8 – 2017_LA_Tables) with nearly 90% in state funded schools within which 38% of pupils are in secondary education and 46% in primary education. West Berkshire aspires to having every school classified as good or outstanding and for every child to fulfil their potential, particularly disadvantaged children.

Attainment

In 2015, 82% of 11 year olds in West Berkshire achieved Level 4 standard in all subjects exceeding the national average of 80%. Results show continued high attainment in reading and writing scores but more improvement is needed in mathematics. The educational attainment gap for disadvantaged 11 year olds at Level 4 standards in all subjects narrowed from 29% in 2012 to nearly 19% in 2015 (15% nationally). [Source: Council Strategy 2015]

62% of 16 year olds get 5 or more GCSEs graded A* to C, well above 57% nationally for state funded schools, and is within the top 25% in national rankings. The educational attainment gap in the secondary phase for disadvantaged pupils widened slightly for those gaining 5 or more GCSEs graded A* to C from 33% in 2014 to 35% in 2015 and is more than the gap nationally 28%. It continues to be an area upon which schools and Council are focussed on improvement. [Source: Council Strategy 2015]

West Berkshire has a higher than average proportion of people with higher qualifications (HND, degree or higher); 32% of people of working age. Despite the district's relatively good performance in education, significant numbers of the working population have no qualifications, now at 17% (though on a downwards trajectory since 2001), and poor literacy and numeracy skills. This has important social implications since there are significant links between basic numeracy / literacy and levels of crime and health. Low levels of skills also potentially acts as a break on the economy with local employers unable to find people with the necessary skills from the local labour pool. Skills and labour gaps exist in certain key areas, particularly in the public sector, the construction industry and tourism[14].

[14] West Berkshire District Profile 2015, West Berkshire Council

Numbers and provision

In line with district wide birth data, numbers of pupils are dropping in rural areas but less so in our urban areas. These dropping numbers are countered by the changes in Early Years provision. All children aged 3 & 4 (3-5) are entitled to 15 hours of funded (free) early years provision a week, for (a set numbers of) 38 weeks per year. Children of this age whose working parents are eligible, which the majority are in West Berkshire, are also entitled to a further 15 hours. Children aged 2, whose parents are on certain benefits, are also entitled to 15 hours of provision, (but in more limited circumstances).

There is a variety of provision across the district but this tends to be more limited in rural areas. Parental choice is a significant factor in suitability and availability of provision. Unlike school places, which tend to serve a catchment area, settings can draw from a wide area. Parents often choose provision that is suitable for reasons other than their home address, proximity to work or relatives can be beneficial. In general there are sufficient places across the district, for current demand, however there are areas where demand exceeds places.

Nationally the birth rate has increased over the last decade, from a relatively depressed period in the 1990's. The district has seen the impact of the increase in birth rate since 2011, slightly behind the national picture. Primary reception numbers have risen from 1696 in October 2010 to 2019 in October 2015. The numbers remain high, with 1937 on roll in October 2016 and 1895 in October 2017.

Nationally birth rates are settling, and some LAs have reported numbers are dropping. However, LAs in the south-east have reported that the decline has not been as significant as expected and that new housing/inward migration have stabilised numbers. Across the district we are tending to see rural areas dropping back, but sustained numbers in our more urban areas. This is very localised, however, with Newbury remaining buoyant and Thatcham less so.

The growth in primary has been steady and continuous, whilst secondary numbers have remained relatively static.

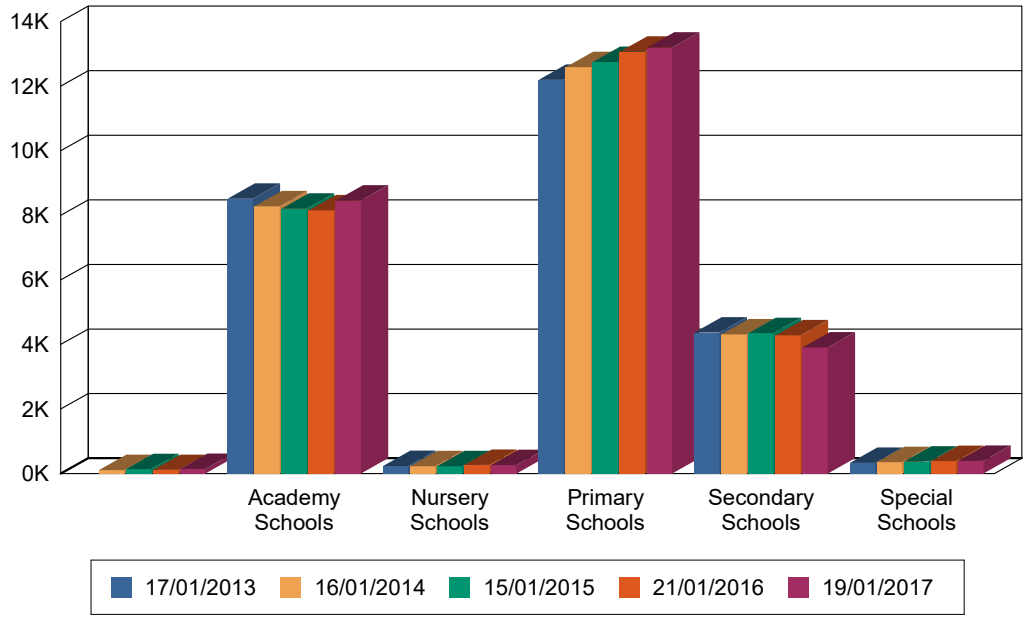


Table 1 - Five Year Analysis document, Education

Growth in primary has been seen mainly in the urban areas of the district and in Newbury in particular. Newbury is likely to continue to be full at Reception until September 2019. From this point numbers will start to slowly drop across the next 5 years. This is likely to be off-set by the amount of new housing coming forward in Newbury, which is likely to create localised demand up to and in excess of our existing capacity.

In addition to filling up our existing schools and sites, we have added 2 additional forms of entry in Newbury and will be opening a further 1 form of entry (FE) at High Wood Copse in 2019. There are also five temporary bulge classes, providing a further 135 places in Newbury primary schools. In Thatcham, 1 FE has been added as well as a bulge class of 10 places.

Of the population of West Berkshire schools, 1% require specialist educational provision. This provision is organised across the district rather than in local areas due to the complexity and variety of these needs. As the school population rises, so too does the demand for specialist provision. The profile is likely to follow the growth we have seen in other phases of education, with growth moving through primary to secondary.

Future trends: With the rollout of the extended funded entitlement which started in September 2017, it is anticipated that the demand for quality childcare places will increase. The Council will be working with all providers, including schools, to increase the number of places in the area. The challenge includes mapping and understanding supply and demand at ward level. The picture of demand is complex, and is not necessarily linked to where families live.

The higher primary numbers will start to affect secondary schools from September 2019. It is expected that growth will be mainly focussed around Newbury and Thatcham, although numbers in the East of the district will also increase. The Council anticipate that the district will need to add additional forms of entry over the next seven years. Growth is particularly focussed in north Newbury and Thatcham, however numbers will increase across the whole district. As growth moves out of the primary sector, decreasing numbers will have an impact. As previously stated this will be very localised, and new housing will likely offset this decrease. The rural areas are likely to be more affected than the urban areas, where numbers are expected to be more stable. This is coupled with changes to school funding. Schools that have smaller class sizes will be most affected by these changes and viability is likely to be a risk. This could affect the availability of local school places to mitigate the impact of development in rural communities.

Secondary numbers are likely to remain high in the medium term, particularly in Newbury and Thatcham. As this area is also the focus of new housing growth in the district, sufficiency of places is likely to remain an issue. New housing growth is therefore likely to need to deliver additional infrastructure.

As with mainstream provision, specialist places will need to keep pace with demand and the change from primary to secondary phase. Specialist provision will also need to be suitable for changing needs.

In response to improving the basic skills of adults, the Council is continuing to steer provision to certain groups of the population, achieved through a combination of adult funding arrangements, fee concessions for students aged 60+, encouragement, funding and professional support for the development of provision targeted at addressing learning needs of prioritised groups and curriculum planning.

Housing

According to the 2011 Census, 70% of all housing in West Berkshire is owner-occupied - compared to 64% nationally. A very small proportion (1%) is being purchased under a shared ownership scheme whilst the remainder of households are in rented accommodation. About half of all rented accommodation is rented from a Registered Social Landlord (i.e. a housing association).

The number of households in the District in 2018 was 65,076[15] (69,100 projected for 2037)). In 2001 the number stood at 57,000, representing a 14% increase over the 17 years. This is comparable to neighbouring Berkshire authorities and slightly higher than England which increased by approximately 13% over the same period and the South East which increased by 12%.

[15] 2018-based household projections to 2043 for England

The average size of households in West Berkshire was 2.39 people in 2018. This is slightly below the average in Berkshire of 2.56 and close to the national average of 2.37. Both nationally and within the district, overall household size has been declining since the 1950s and is projected to continue to decline. This is due to more single person households and an increase in household formation rate e.g. higher rate of separation and divorce. An easily overlooked consequence of this decline is, of course, that more dwellings are needed to accommodate the same population.

Of the requirement for at least 10,500 dwellings in the Core Strategy period 2006 - 2026, 6,948 additional units were completed in the first 14 years to March 2020. Delivery has therefore fallen below the cumulative requirement with a shortfall of 402 net units. The vast majority of dwellings on allocated sites in both the Core Strategy and the HSA DPD were anticipated to be completed in the second half of the plan period and delivery on many of these sites is now well underway with anticipated increased delivery in the remaining years of the plan period.

A significant issue in West Berkshire is the cost of accommodation. A combination of deteriorating affordability of market homes, restricted access to mortgage products and shortage of social housing supply has played a large part in fewer households being able to buy a home and also increased pressures on the existing affordable housing stock. This has also contributed in the strong growth in the private rented sector as households are being forced to rent longer or cannot secure alternative accommodation[16]. House prices have risen by 138% between 2000 and 2019 and West Berkshire remains one of the more expensive places to buy a house outside London. Prices fell slightly in 2008 and 2009 as a result of the economic downturn, but they have made a stronger recovery along with the rest of the south east, than the national average. In 2019 the average house price in West Berkshire was £413,251; £111,824 more than the national average. See Table 1 below. A single income household would need to earn considerably above the average wage to receive a 90% mortgage on an average flat, assuming sufficient savings for a deposit. The latest Office of National Statistics data reports a ratio of median house price to median gross annual workplace-based earnings in 2019 of 9.54. This highlights the increasing need for affordable housing for local people and key workers within the district, especially amongst younger households. The Updated Housing Needs Evidence[17] concludes that there is an annual affordable housing need of 163 rented affordable homes.

Based on evidence in the Berkshire Strategic Housing Market Assessment (SHMA) and the Updated Housing Needs Evidence, the focus of new market housing provision should be on two and three bedroom properties, with a higher percentage of affordable provision for one and two bedroom properties.

[16] Berkshire Strategic Housing Market Assessment, February 2016

[17] Updated Housing Needs Evidence, May 2020

Table 1 below shows the average annual house prices (all tenures) 2000-2019 (Source: Land Registry)

Average House Prices (£)

Year	West Berks	South East	England and Wales
2000	165255	136343	107467
2001	188372	152103	118878
2002	209781	177332	137935
2003	226866	199949	155884
2004	244674	219176	178806
2005	246432	228310	189341
2006	270316	243157	203512
2007	292969	262831	219375
2008	281567	263133	217021
2009	280029	249605	213436
2010	303289	278099	236091
2011	306924	273495	232680
2012	306152	278036	238224
2013	303986	285679	247205
2014	323446	304816	260779
2015	354061	326723	272011
2016	384799	351306	282709
2017	395295	371597	292953
2018	413046	379358	297502
2019	413251	383600	301427

From the 2011 Census, Older Person Households account for 19.7% of all households which along with Wokingham is the highest in the Western Berkshire Housing Market Area but slightly lower than the South East and England. 76.9% is owner occupied with 17.6% in social rented accommodation, similar to other local authorities in the Housing Market Area bar Wokingham which has 85.9% owner occupation. The current supply of specialist housing for older people is 179 for every 1000 people over 75 years of age, higher than all other the other local authorities in Berkshire (Source: Housing Learning and Improvement Network) but this needs to be seen in the context of an overall increase in ageing population. The proportion of people with a long term health problem or disability (LTHPD) is closely related to the numbers of older people. In West Berkshire some 25% of households contain someone with a LTHPD, similar to other authorities in Berkshire but lower than the regional and national figures.

Future trends: The past trend of increasing household formation and decreasing household size is predicted to continue. The 2018-based household projections show a projected growth in households from 65,076 in 2018 to 69,112 in 2027, an increase of 6.2%. This is a lower rate of increase than projected for the South East (12.2%) and for England (12.8). Average household size in 2038 is projected to be 2.22 compared to 2.26 nationally and a reduction from 2.39 in 2018.

In July 2018, the Government published an updated version of the National Planning Policy Framework (NPPF) which stated that to determine the minimum number of homes needed, strategic policies should be informed by a Local Housing Need (LHN) assessment, conducted using the standard method in national planning guidance. The LHN figure is based on the household projections, published every 2 years by the ONS, with an additional uplift to reflect the affordability of the area every year.

Details of the formula and data to be used to calculate the local housing need figure are set out in the Housing and Economic Needs Assessment section of the Planning Practice Guidance (PPG). Using the 2014-based household projections (released September 2016, over the period 2020-2030), and an uplift based on the ratio of house prices to workplace-based earnings (2019 affordability ratio, published March 2020), the LHN for West Berkshire for 2020 is 513 dwellings per annum.

In August 2020 the government published its consultation document "Changes to the current planning system" which proposed changes to the standard method. The outcomes of this are not known at the current time.

A general shortage of affordable housing is a particular problem, especially in rural areas which are popular and attractive places to live. This can have a major impact on the ability to find and retain younger staff in general and key workers in particular. Demand for new houses is high with local people competing with new residents such as commuters, people with second homes and the retired. Equally, the rising number of older persons will increase demand for market and affordable housing including specialist housing with sheltered or suitable care in the home and for registered care housing. The Updated Housing Needs Evidence[18] shows a need for 1,280 specialist housing units over the period to 2036, including both housing with support – such as sheltered and retirement housing – and housing with care – such as extra care provision. The need shown is particularly for private sector leasehold provision. In addition a need is shown for 1,457 bedspaces in care and nursing homes.

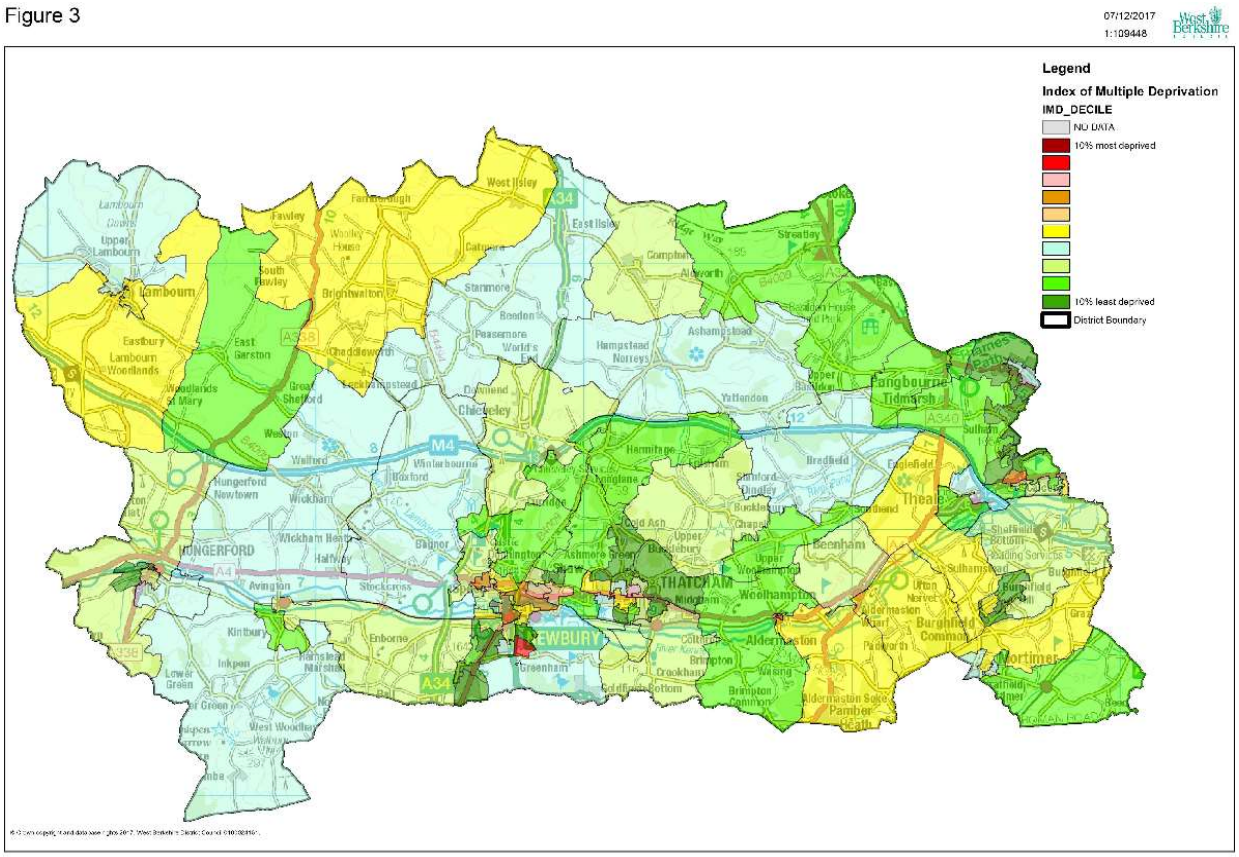
Deprivation

Overall, the district of West Berkshire ranks 291 out of 326 (2015) local authority areas, making it the 35th least deprived district in England. West Berkshire has a total of 97 Super Output Areas (SOAs) and the ten most deprived are shown in table 2 below. The table also shows the overall ranking out of all SOAs in the country. None of the West Berkshire SOAs fall within the top 10% most deprived in the country. The England ranking is 1 to 32,844 with 1 being the most deprived and 32,844 being the least deprived.

[18] Updated Housing Needs Evidence: Iceni projects Ltd, May 2020

Figure 3 – Index of Multiple Deprivation

Figure 3



Source: DCLG Indices of Multiple Deprivation 2015

Table 2 – Top ten most deprived SOAs in West Berkshire[19] (2015)

Rank in West Berkshire	SOA	Ward that SOA is in	Rank of IMD in England
1	E01016295	Greenham	6258
2	E01016336	Thatcham North	7708
3	E01016673	Calcot	9971
4	E01016347	Speen	11894
5	E01016346	Victoria	12435
6	E01016325	Victoria (east)	12615
7	E01016280	Calcot	14579
8	E01016279	Clay Hill	14698
9	E01016312	Clay Hill	14939
10	E01016340	Lambourn Valley	16528

Greenham and Thatcham North are in the ninth and eighth decile of deprivation respectively. In terms of 'Barriers to Housing and Services' (one of the IMD indices), a large proportion of the District is classified as being deprived; mainly due to the rurality of the area. Communities that are highlighted as being most deprived will have limited access to services and affordable housing. The generally high affluence of the region and of West Berkshire masks pockets of deprivation and exclusion. In particular, within the Newbury area, some more urban areas near the Reading fringe, areas in Thatcham and in the rural west of the district around Hungerford and Lambourn. There are communities with individuals and families who experience particular difficulties as a consequence of being poor within a generally wealthy region.

[19] Indices of Deprivation 2015, DCLG

Future trends: The main deprivation issue facing the area is that of barriers to housing and services. The need for affordable housing is likely to increase over the coming years. Sufficient and affordable housing in rural areas is also likely to remain a major concern, often resulting in young adults unable to buy or rent accommodation locally. The correlation between deprivation and poor health and wellbeing is also an issue.

Crime and Community Safety

Overall, West Berkshire is a safe place to live and the 'all crime' rates are lower than average for comparable areas and within the Thames Valley force area for the year ending March 2017 and over the last 3 years. Thames Valley Police crime data[20] for West Berkshire derived from the ONS, has showed a downward trend in all crime from 2009/10 though this has levelled out and then risen (7.8%) over the years March 2014 – March 2017 but still remains low compared with ten years ago.

A complex and varied picture underlies the All Crime rate. A reduction of burglaries in the same period contrasts to an increase in robbery of personal and business property and theft from vehicles and person. The level of crime across West Berkshire is unequal but measureable. The key inequalities are within areas of deprivation, rural or urban, and continue to be higher in the more urban densely populated areas of Newbury, Thatcham and bordering Reading. Key inequalities exist in some of the rural areas of the district which are ranked higher in terms of crime; these include Theale, Bucklebury, the Leckhampstead and Peasemore area, Speen, the Lambourn Valley and Burghfield. Crime in the district occurs mostly in the evenings and especially overnight.

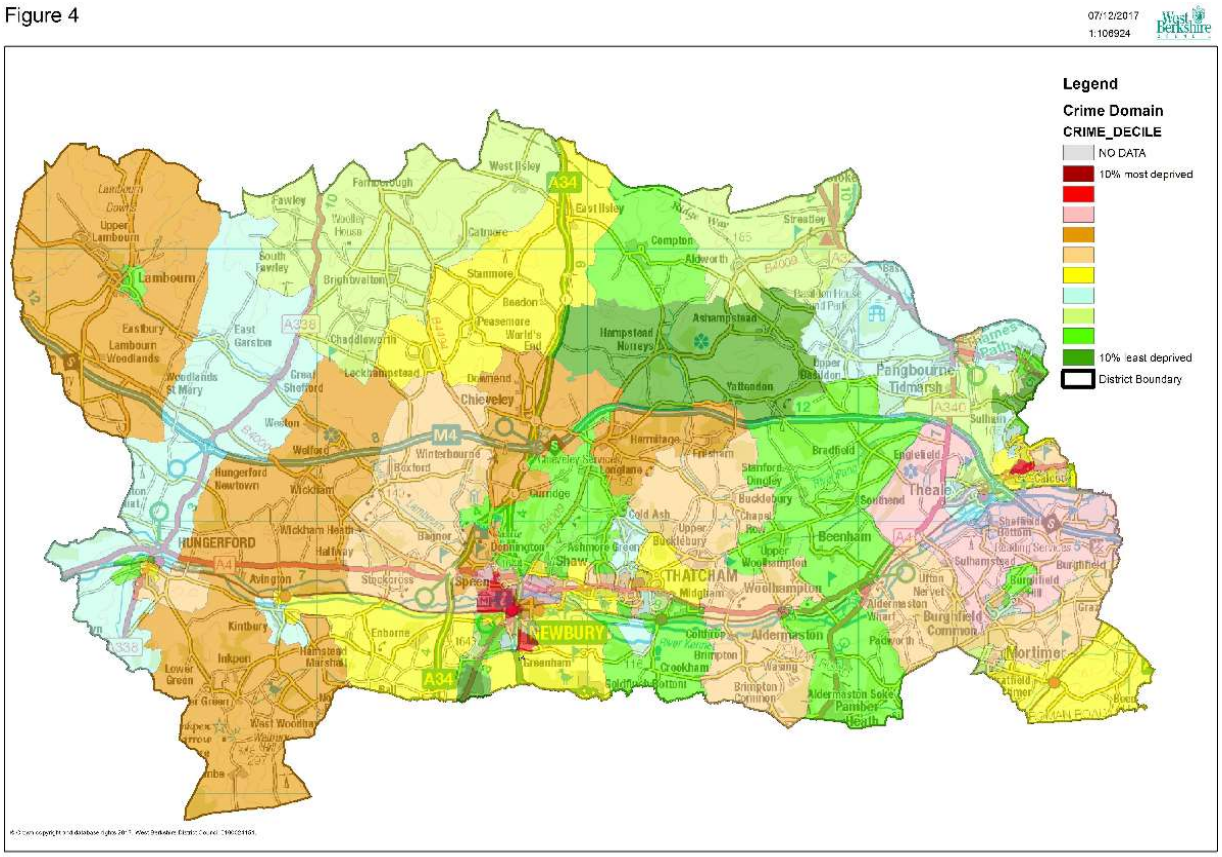
Most offenders are young and between the ages of 14 and 24, however younger people (aged 16 to 50) make up the majority of victims, with the risk of experiencing crime decreasing as age increased.

The map below shows crime across the district according to DCLG's Indices of Multiple Deprivation. This measures the incidence of crime for the four major crime themes (burglary, theft, criminal damage and violence) and represents the occurrence of personal and material victimisation.

[20] Thames Valley Crime Recording Systems

Figure 4 – Indices of Multiple Deprivation data showing crime and disorder.

Figure 4



Source: DCLG, Indices of Multiple Deprivation, 2015

One of the main areas for offending is Newbury town centre with the peak time for offending being between 9 pm and midnight on a Friday and 9 pm – 3 am on a Saturday and Sunday, which shows a direct link to the night time economy. The 3 motorway service areas in West Berkshire are hotspots for thefts from family vehicles and lorry loads. Both Membury and Moto Service Stations are also significant hotspots for making off without payment/bilking offences.

The results of the West Berkshire Council Community Safety survey 2008 showed that the majority of people, 87%, feel safe outside during the day in their local area. This changes after dark where almost a third of residents did not feel safe. The most commonly perceived anti-social behaviour problems in West Berkshire are speeding vehicles, teenagers hanging around and inconsiderate parking. Despite a relatively low crime rate in the district, perceptions and fear of crime does not appear to diverge significantly from the national picture. The 2007/8 West Berkshire Council Annual Satisfaction Survey shows crime is of universal concern irrespective of where people live. No more recent information is available.

Future trends: Although the level of crime is of importance to the residents of the area, it is antisocial behaviour that is of more concern as this has a direct effect on the quality of life and general appearance of the area. A large number of the complaints received relate to anti-social behaviour attributed to young people and in some cases this is more to do with lack of tolerance by older residents. However, since the district is in line to see an increase in the older population, this is likely to lead to less tolerance towards the behaviour of young people.

Community sport and leisure facilities

The National Planning Policy Framework[21] (NPPF) is clear about the role that sport and leisure activities can play in delivering sustainable communities by promoting health and wellbeing and improving people's quality of life.

West Berkshire Council has 7 leisure centres at Cotswold (Tilehurst), Hungerford, Lambourn, Willink (Burghfield Common), Downland (Compton), Kennet (Thatcham) and Northcroft (Newbury) and provides sports pitches in 4 locations: Henwick Worthy, Thatcham; Holybrook Linear Park, Calcot; Northcroft Park, Newbury and Moorside Centre, Thatcham. The District has clubs accredited under the Sport England Clubmark or the National Governing Bodies equivalent programme. In addition, sports clubs are registered with the County Sports Partnership for Berkshire.

The West Berkshire Open Space and Leisure Assessment of Need 2005 concluded the provision of sports halls and swimming pools exceeds demand based on the demand and supply modelling carried out as part of the study. The assessment is dated now and does not give indication of likely future condition of recreational facilities nor future demands. A new Playing Pitch Strategy has been commissioned.

However, Sport England's Active People Survey gives some indication of existing sport and activity participation in West Berkshire. Those over 16 participating in sport at moderate intensity for 30 minutes once a week increased from 39.7% in 2005/6 to 41.2% in 2013/14 and at three times a week from 25.9% to 28.1% over the same period. The number of adults (16+) who have not participated in any sport in the last 28 days has decreased from 48.6% to 43.2%.

Future trends: The marginally improving trend in participation is similar or slightly better than neighbouring authorities and nationally. However, the latent demand of adults who would like to do more sport over the next 12 months in West Berkshire has increased from 51.6% to 61.3% which is higher than most neighbouring authorities and nationally, and when combined with generally low rates of participation, it does indicate the need to ensure an adequate supply of sport and leisure facilities for the future.

Landscape, Townscape and Cultural Heritage

Landscape

West Berkshire has a varied natural landscape. The District can be divided into five national Countryside Character Areas based on differing but distinct landscape character and underlying geological diversity. These are Thames Basin Heaths (in the south), Hampshire Downs, Berkshire and Marlborough Downs (in the north), Chilterns (in the north-east) and Thames Valley (in the south-east)[22].

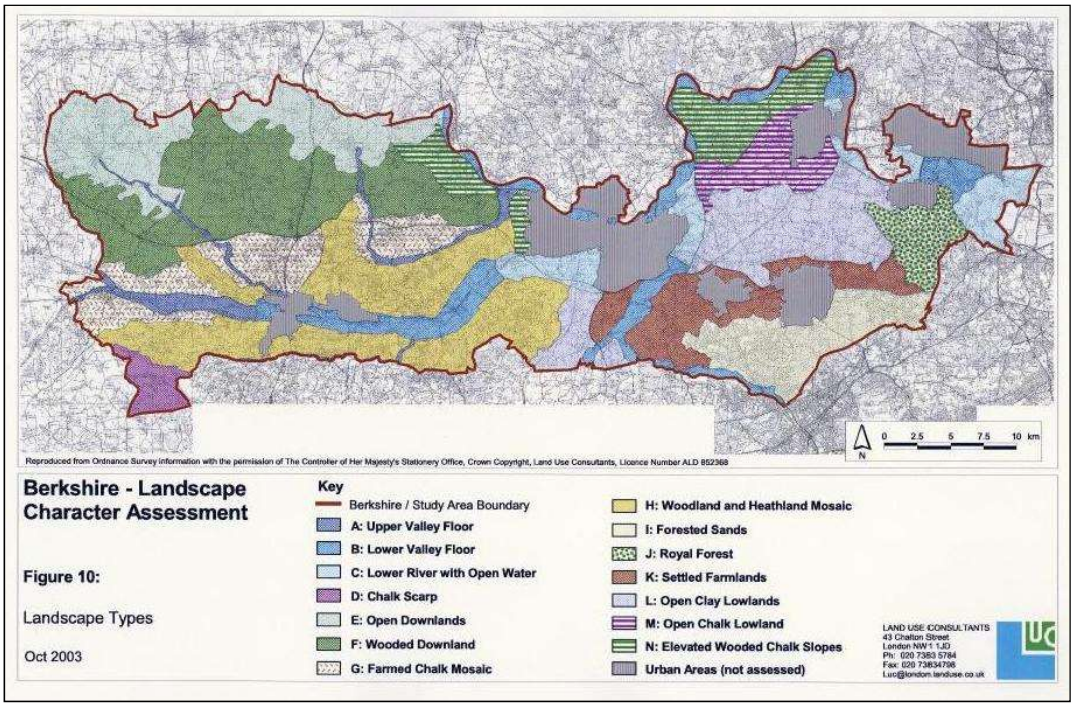
The Berkshire Landscape Character Assessment[23] (2003) identifies 14 landscape types which are subdivided into potential character areas.

[21] NPPF, paragraph 92 and 96

[22] The Character of England Landscape, Wildlife and Cultural Features Map, Natural England, 2005

[23] Berkshire Landscape Character Assessment, Joint Strategic Planning Unit, 2003.

Figure 5 – Berkshire Landscape Character Assessment

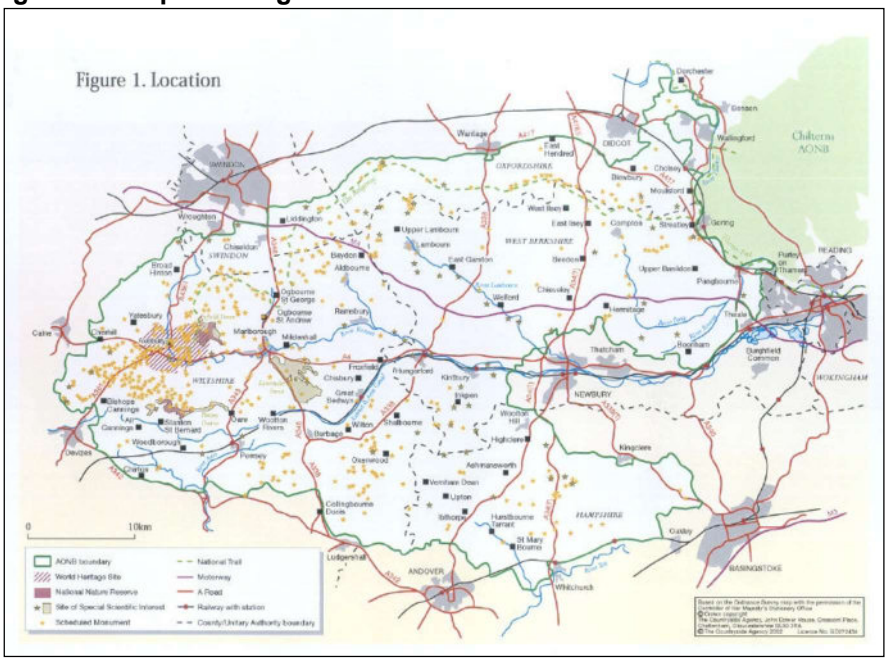


Source: Berkshire Landscape Character Assessment, 2003

74% of West Berkshire lies within the **North Wessex Downs Area of Outstanding Natural Beauty** which is a landscape of national importance. Within the AONB the diversity and mix of landscapes include[24]: Chalk Upland; Chalk Dipslopes and Lowland and Chalk with Tertiary or Gravel Deposits; Western Wooded Chalkland; Lambourn Valley; Pang Valley; Kennet Valley; Thames Valley; Wooded Lowland Farming; Gravel Plateau Woodlands with Pastures and Heaths; Plateau-edge Transitional Matrix; London Clay with Gravel Ridges; Small scale Wooded Valley Farmland; Large scale Valley Farmland; Parkland.

[24] North Wessex Downs AONB Integrated Landscape Character Assessment, 2002

Figure 6 – Map showing the location of the North Wessex Downs AONB



Source: North Wessex Downs AONB

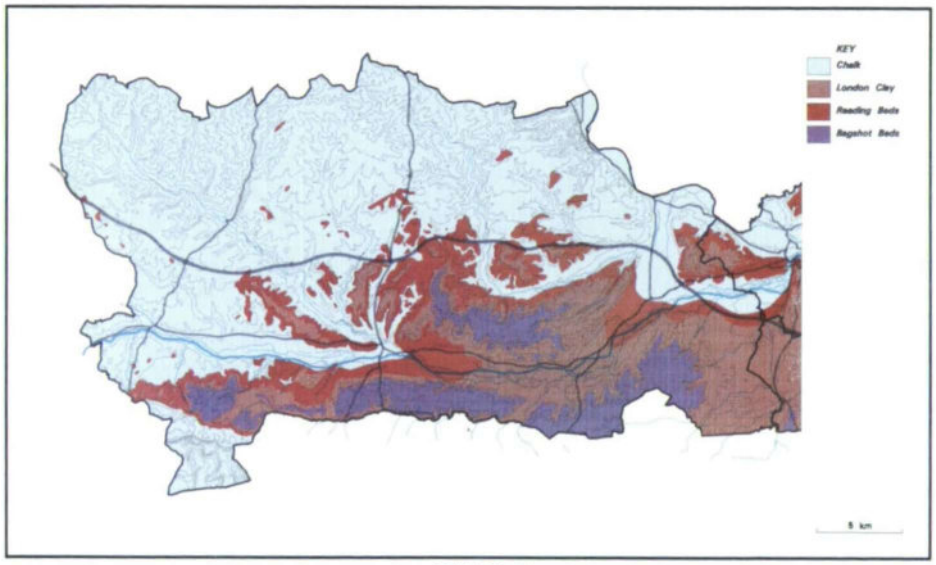
Future trends: Development is one of the most powerful forces for change to the landscape character of the District. The need to accommodate new housing and economic development along with its associated infrastructure is a perpetual challenge, particularly in the North Wessex Downs AONB. In an area such as West Berkshire there will inevitably be a demand for housing in rural areas which can be a very visible force for change. Recognising differences in landscape character at a range of scales is essential to ensure that land management changes and decisions about new development proposals take every practical opportunity to respect and enhance the sense of place of different areas. The promotion of good design and sense of place can help ensure that change is positive and does not result in an alteration of settlement character and identity due to the gradual erosion of local distinctiveness as traditional features are replaced with standard building materials and design.

Geology

The main elements of West Berkshire's underlying geology are Chalk, London Clay, Reading and Bagshot Beds. In many areas alluvial deposits and plateau gravels are superimposed upon this geology. Chalk underlays much of the area covered by the AONB, while the Bagshot Beds are found to the south of the District stretching from the west to the east. The London Clay and Reading Beds are located in areas between the Chalk and the Bagshot Beds.

Rushall Farm Pit is currently the only Regionally Important Geological/ Geomorphological Site (RIGS) in West Berkshire, although seven of the District's SSSIs have been identified for their geological value.

Figure 7 – Solid geology of West Berkshire.



Solid Geology

Source: Newbury District Wide Landscape Assessment, Landscape Design Associates, 1993

Historic environment

The West Berkshire Historic Environment Record (HER) is a dynamic information service which acts as an index to all known physical remains of past human activity in the district[25]. The HER contains details of all West Berkshire's nationally and locally designated sites as well as buildings, structures, places and findspots that are not designated but still tell the story of our past. In 2018 there are over 11,000 such monuments on the HER. It is a public record which is used to understand and manage the historic environment resource of West Berkshire.

Historic England maintains the list[26] of the area's nationally protected sites:

> **Listed Buildings:** The District has nearly 1900 listed buildings, 42 of which are listed at Grade I, 109 at Grade II*, and the rest at Grade II. Examples include the Norman church of Avington, Elizabethan Shaw House, the Georgian mansion of Basildon Park, many timber-framed agricultural barns, Mortimer Station, and the 1950s St Johns Church in Newbury.
> **Scheduled Monuments:** 90 sites are identified as Scheduled Monuments across West Berkshire. These include a wide range of types and chronological periods, including the Neolithic Long Barrow at Combe Gibbet, the many barrows of the Lambourn Seven Barrows Bronze Age cemetery, Iron Age hillforts such as Grimsbury Castle, the medieval site of Donnington Castle with its Civil War earthworks and the Cold War Cruise Missile storage facilities (GAMA Site) at Greenham Common.
> **Registered Parks and Gardens:** There are 12 Registered Parks and Gardens that lie completely within West Berkshire. Examples include Folly Farm in Sulhamstead, Aldermaston Court and Purley Hall.
> **Registered Battlefields:** There is one Registered Battlefield, the site of the First Battle of Newbury 1643.

West Berkshire Council is responsible for further designations:

[25] http://info.westberks.gov.uk/her
[26] https://www.historicengland.org.uk/listing/the-list/

Conservation Areas: There are currently 53 Conservation Areas[27], generally within historic cores of towns and villages but also along the Kennet and Avon Canal east and west of Newbury. Two Conservation Area Appraisals have been completed. None have Management Plans although two are in preparation at Shaw House and Church Conservation Area.
Locally Listed Assets: West Berkshire Council maintains a local list[28] of heritage assets, considered to have special local architectural, archaeological or historic interest. Since the list was established in 2012, there have been 24 buildings and structures adopted, including pubs, almshouses and milestones.

The 2017 Historic England Heritage at Risk Register includes four Listed Buildings, four Scheduled Monuments, three Registered Parks and Gardens and one dual designation (listed and scheduled) deemed at risk in West Berkshire. These are listed in the table below:

Table 3 - Heritage at Risk in West Berkshire[29]

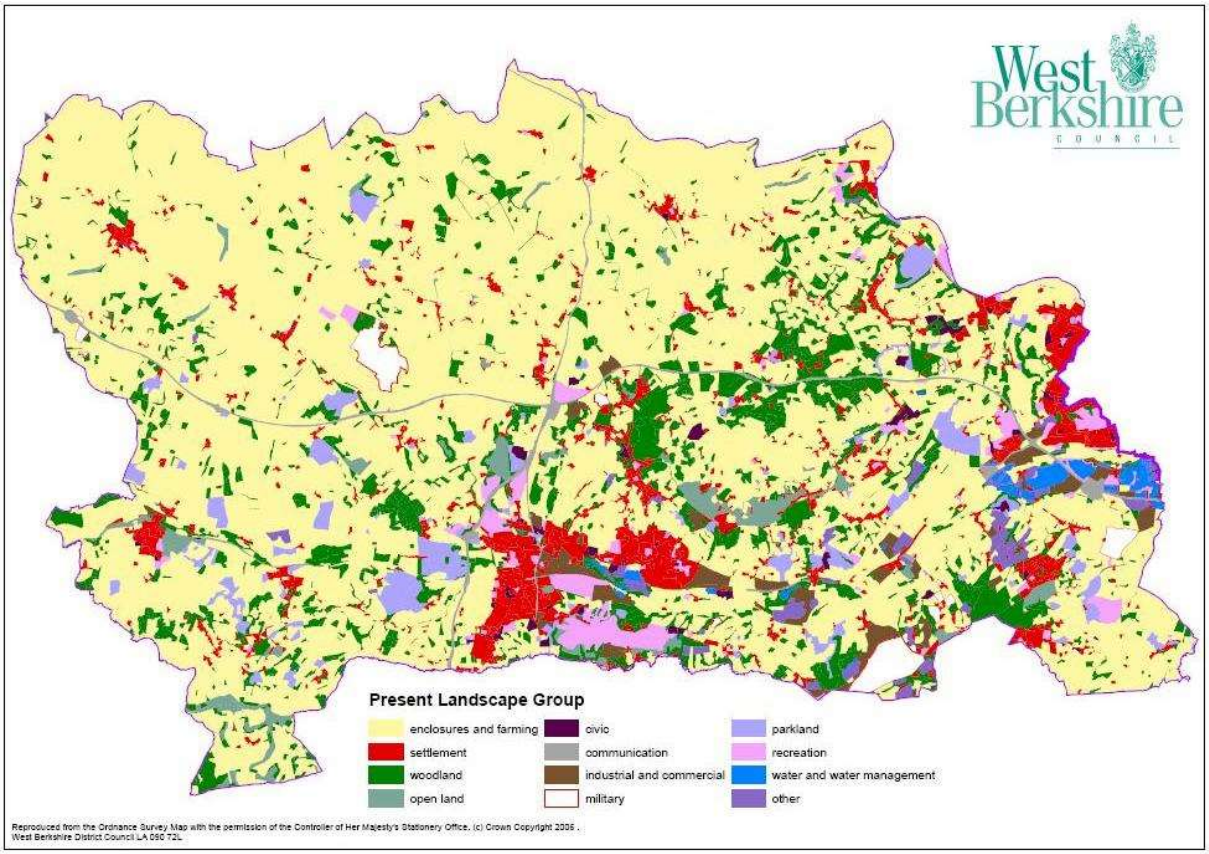
Site / Building at risk	Designation	Vulnerability
Chapel of St Leonard, East of Manor Farmhouse, Brimpton Road, Brimpton	Scheduled Monument and Listed Building grade II*	Vacant building
Pair of gate piers 204 meters east of entrance to Home Farm, Park Lane, Hampstead Marshall	Listed Building grade I, RPG grade II	Eroding of brick work – slow decay, no solution agreed
Three pairs of gate piers and walls around gardens and terrace at Home Far, Park Lane Hampstead Marshall	Listed Building grade I, RPG grade II	Weed growth and erosion – slow decay, no solution agreed
East Ilsley Down round barrows, East Ilsley	Scheduled Monument	Arable ploughing
Long barrow on Sheeo Down, 1km north of East Ilsley	Scheduled Monument	Arable ploughing
Pair of gate piers and approx 2m of wall to east and west of piers on edge of park Lane 162m west of entrance to churchyard, Park lane, Hamstead Marshall	Listed Building grade 11*	Slow decay, no solution agreed
Two bowl barrows 500m NE of Stancombe Farm, Lambourn	Scheduled Monument	Animal burrowing - extensive
Membury Camp, Lambourn	Scheduled Monument	Woodland management
Aldermaston Court, Aldermaston	Registered park and garden grade II, 12 LBs, part in CA	Perceived lack of beneficial use and resources
Sandleford Priory, Greenham	Registered Park and Garden grade II, 2 LBs	Development
Shaw House, Newbury	Registered park and garden grade II, 6LBs, 2 CAs	Additional funding required to restore all the garden areas

Surveys of Grade II listed secular buildings have not been done nor to establish if any Conservation Areas are risk

Mapping of current and past land use was undertaken between 2004-2007 for all of West Berkshire as well as for the North Wessex Downs Area of Outstanding Natural Beauty through the Historic Landscape Characterisation (HLC) Project.

[27] http://info.westberks.gov.uk/conservationareas
[28] http://info.westberks.gov.uk/locallist
[29] https://historicengland.org.uk/advice/heritage-at-risk/search-register/

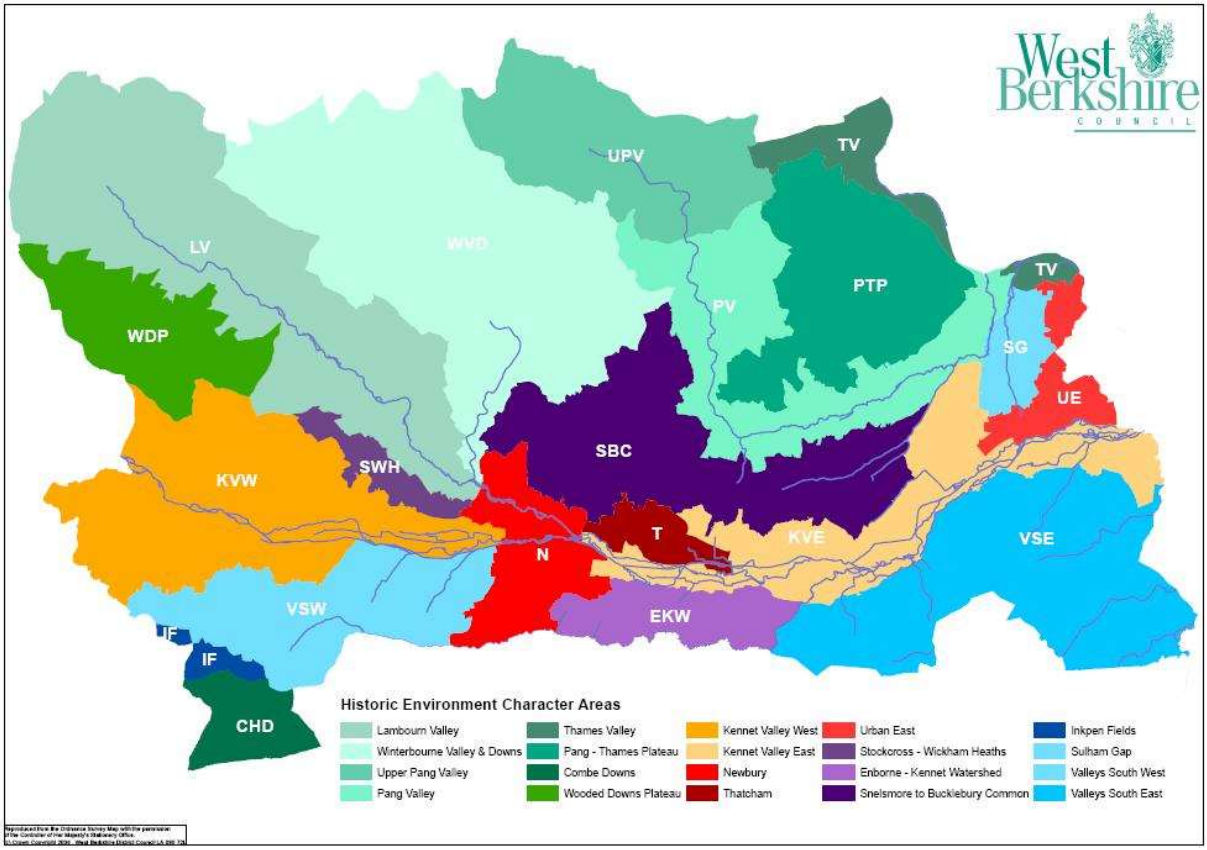
Figure 8 – Present land use according to the Historic Landscape Characterisation Study for West Berkshire[30].



Building on the HLC work, the **Historic Environment Character Zoning (HECZ)** project for West Berkshire was then undertaken in order to provide an integrated spatial account of the historic environment resource in the district. It involved the mapping and analysis of a range of datasets including the Historic Environment Record (HER), Historic Landscape Characterisation (HLC), buildings, settlement form and a range of geographic data (geology, landform, drainage, etc).
The result of this process was the classification and division of the district according to the dominant historic processes that have influenced and shaped our current landscape. This gives a spatial recognition of the variety of historic landscapes and archaeological features that either inform or survive within different areas across the district. The dominant characteristics, as recognised through the HLC project, are grouped up to form Historic Environment Character Areas (HECAs). These are then further subdivided, using data from the HER, into Historic Environment Character Zones (HECZs). For each HECA and nested HECZ a written description has been prepared that summarises the main influences and features. Using the information obtained through the project each HECZ also has a Historic Environment Action Plan (HEAP), highlighting the major threats or opportunities to the historic environment and giving priorities for future research activity.

[30] Historic Landscape Characterisation Project, West Berkshire Council, 2007

Figure 9 – Historic Landscape Character Areas for West Berkshire[31].



Future trends: Development is again one of the most powerful forces for change to the conservation and enhancement of the historic environment of the District and so having an understanding of the way in which the historic environment has influenced settlement patterns and the sense of place of particular areas is important in accommodating future development. In the future, successful conservation and enhancement will only be achieved through partnership and cooperation. Promoting a multi-agency approach to the management of the historic environment will also increase public participation, understanding and enjoyment.

Common land

West Berkshire has 54 pieces of land registered as commons throughout the area including town commons still under traditional grazing, such as Hungerford Common and Greenham Common. Land registered as town or village green number 31 across the district. Many are under pressure from recreational use.

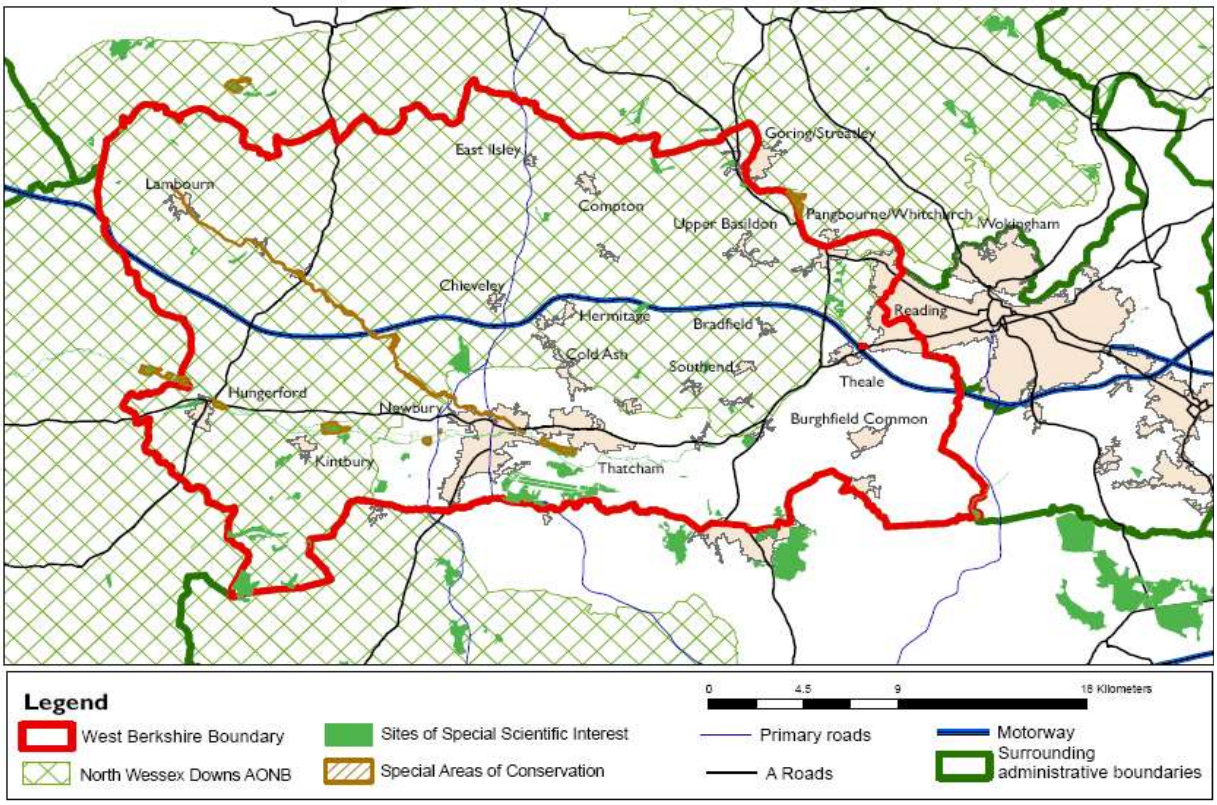
[31] Historic Environment Character Zoning Project, West Berkshire Council, 2007

Biodiversity and Green Infrastructure

Biodiversity

West Berkshire has a diverse natural environment made up of many different natural habitats, 21 of which are identified as Priority Habitats for conservation (c.8400 ha)[32]. Much of this habitat is located in designated sites of international, national, regional and local conservation importance.

Figure 10: Location of SSSIs and SACs in relation to West Berkshire and the North Wessex downs AONB.



Special Areas of Conservation (SAC): Three SACs (which are all sensitive to surface and groundwater quality and quantity) in West Berkshire are of international importance and cover six of the District's Sites of Special Scientific Interest (SSSI). See below.

[32] Thames Valley Environmental Records Centre (TVERC), 2017

Table 4 – West Berkshire SACs

Area	Quality and importance	Vulnerability
River Lambourn	One of the best chalk streams in the UK and a priority Biodiversity Action Plan habitat that includes Ramunculion Fluitantis and Callitricho-Batrachion (Aquatic Vegetation) and the European Bullhead. The river is a site that supports significant presence of the Brook Lamprey.	Area of high water quality and habitat quality. Localised higher water nutrient levels (in particular phosphorous concentrations) and siltation associated with sewage treatment works.
Kennet and Lambourn Floodplain	One of the UK's more extensive known populations of Desmoulin's Whorl snail	Require open, unshaded conditions, with an adequate supply of high quality water and water levels. Majority of population are not considered to be under threat.
Kennet Valley Alderwoods	Alluvial Forests of Ash and Alder	Dependent on maintenance of constantly high ground water levels. The site is subject to low levels of intervention and natural processes are allowed to prevail, therefore, there are no known threats to groundwater levels.

Sites of Special Scientific Interest (SSSI): West Berkshire currently has 50 SSSIs (1,406.31 ha[33]) which are of national importance for the species of animal or plantlife that they support or for their geology. The table below lists the habitat designations in West Berkshire. Six fall within SACs.

Table 5 – West Berkshire Habitats

Habitat designated	Number of sites
Alder Woodlands	1
Ancient Woodland	10
Ancient Woodland and Heath land	1
Ancient Woodland and Wet Grassland	1
Chalk Grassland	10
Chalk Grassland and Ancient Woodland	1
Chalk Grassland and Lichens	1
Chalk Stream	7
Heathland	1
Lake and Wetland	1
Meadow	2
Neutral Grassland	3
Neutral to Acidic Grassland	1
Ponds and Marsh	1
Pools and Wet Woodland	1
Reed Beds	2
Wet Grassland	2
Wet Grassland and Chalk Stream	1
Wet Grassland and Reed bed	1
Wet Heath and Ancient Woodland	1
Wet Marsh	1

Approximately 56% of the SSSI area is considered to be in a favourable state, with 32% unfavourable but recovering and 11% unfavourable and not changing. River Kennet and River Lambourn SSSIs are

[33] Natural England, 2017

in an unfavourable no change state with Woolhampton Reed Bed and Boxford Chalk Pit (<1%) being unfavourable declining.

- **Special Protection Areas (SPA):** There are no SPAs in West Berkshire, however the south eastern corner of the District (around the village of Beech Hill) falls within the 5km zone of the Thames Basin Heath SPA.

- **Local Nature Reserves (LNR):** There are three sites within the District.
  - Thatcham Reed Beds,
  - Hose Hill Lake,
  - Burghfield and Padworth Common.

- **Local Wildlife Sites (LWS):** There are 508[34] sites (c.7600 ha) designated for their county level importance and covering 11% of West Berkshire, many of which are ancient semi-natural woodland. The Berkshire Local Nature Partnership has identified.

- **Other sites:** West Berkshire has a rich range of habitats including hedgerows, veteran trees and wildlife corridors as well as conservation verges which are managed differently to normal verges and are sympathetic to the wildlife that flourishes on them. In addition, smaller extant features, which form a mosaic of fragmented sites throughout the area, are important when considered as a whole and connections to and between such sites are also of great value.

- **Protected and other species:** The water vole is Britain's fastest declining mammal. The Thames region is one of the country's strongholds for the animal and even here the decline has been dramatic. Most wildlife species require a number of elements such as ground condition, vegetation and appropriate management in order to complete their life cycle. Farmland still supports large numbers of birds, but great changes have occurred to the management of farmland over the past 30 years and a downward trend can be seen. In Berkshire as a whole, 788 out of 943 priority species for conservation nationally in the UK Biodiversity Action Plan, are present and requiring positive action.

The report 'Making Space for Nature'[35] introduced the need for a different approach to nature conservation from simply trying to protect what we have to a large-scale approach which re-establishes habitat networks and the services they provide us. The approach is taken forward in the Government's 25 Year Environment Plan (2018). The process of defining habitat networks across the whole of the South East, including West Berkshire has begun. Areas which have a high density of priority habitat, and which have opportunity to be developed as a habitat network have been identified. They are known as 'Biodiversity Opportunity Areas' (BOA) and The Berkshire Local Nature Partnership has identified 17 BOA in the Berkshire Biodiversity Strategy 2014 - 2020.

The Air Pollution Information System database website contains detailed information on site relevant critical loads and graphical trends in relation to Nitrogen and Acid deposition; Ammonia, Nitrogen Oxides and Sulphur Dioxide concentrations.

Future trends: Population growth requiring more housing and infrastructure and consumption of natural resources, along with changes in agricultural land use and climate change will continue to place pressure on the wildlife and ecosystems in West Berkshire. Without positive protection, conservation and enhancement, existing species and habitats will decline in quality and extent, and the value of nature for people's appreciation and enjoyment, will be diminished.

[34] Thames Valley Environmental Records Centre (TVERC), 2017

[35] Lawton, J. (2010) Making Space for Nature: A Review of England's Wildlife Sites and Ecological Network

Green Infrastructure

Green infrastructure is a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities across the District. Examples of GI assets can include:

- Natural and semi-natural rural and urban green spaces – including woodland and scrub, grassland (e.g. downland and meadow), heath, wetlands, open and running water, brownfield sites and bare rock habitats (e.g. quarries),
- Parks and gardens – urban and country parks, formal gardens, and institutional grounds (e.g. schools and hospitals),
- Amenity green space – informal recreation spaces, play areas, outdoor sports facilities, housing greenspaces, community gardens, roof gardens, village greens, commons, living roofs and walls, hedges, civic spaces, and highway trees and verges,
- Allotments, orchards, and farmland,
- Cemeteries and churchyards,
- Green (and 'blue') corridors - rivers and canals (including their banks), road verges and rail embankments, cycling routes and rights of way,
- Sites of Special Scientific Interest, Local Wildlife Sites and Local Geological Sites and Nature Reserves,
- Local Green Space designations,
- Archaeological and historic sites,
- Functional green space such as sustainable drainage schemes (SuDS) and flood storage areas.

West Berkshire manages around 740 miles of Public Rights of Way[36] made up of Public Footpaths (61%), Public Bridleways (17%), Restricted Byways (8%) and Byways Open to all Traffic (14%). In addition, 13 miles of permissive access have been provided by landowners under Countryside or Environmental Stewardship agreements. The Ridgeway and Thames Path National Trails also pass through the District. 'Open access land' under the Countryside and Rights of Way Act 2000 covers 1.7% of West Berkshire (1207 hectares). The Council's ROWIP completed an assessment of need from the public and identified a number of priorities including, a better maintained access network for passage and interpretation for information and encouraging more responsible behaviour, and to enhance biodiversity and historic character. New access should be provided to improve links between population centres and facilities including schools and for those of restricted mobility, as well as improved equestrian access away from roads.

The Kennet & Avon Canal provides approximately 28 miles of navigable waterway used increasingly for motorised and non-motorised vessels and craft with many occupied as houseboats, though the exact number is not known. The Kennet & Avon Canal towpath also provides both residents and visitors with significant leisure walking and cycling opportunities.

West Berkshire has two Green Flag Award winning parks, Northcroft and Goldwell Parks in Newbury and Holybrook Linear Park in Calcot with a number of other parks managed locally by town or parish councils.

Stratfield Mortimer has 5 'designated' green spaces under the only Neighbourhood Development Plan in West Berkshire.

The importance for mental health and wellbeing of access to quality green space was highlighted by the Marmot Review[37] and was reinforced in the 2011 UK National Ecosystem Assessment.[38] There is significant and growing evidence on the physical and mental health benefits of access to green spaces, such as on horseback[39] . Research shows that access to green space is associated with

[36] West Berkshire Council Rights of Way Improvement Plan 2010 – 2020 (ROWIP)
[37] The Marmot Review: implications for Spatial Planning. The Marmot Review Team (2011).
[38] Plugging health into planning: evidence and practice. Local Government Group
[39] Health Benefits of Horse Riding, British Horse Society

better health outcomes (eg lower body mass index, improved mental health, improved longevity in older people) and income-related inequality in health is less pronounced where people have access to green space. Access to green space is not equal across the population of England. People living in the most deprived areas are less likely to live in the greenest areas, and therefore, will have less opportunity to gain the health benefits. It can also bring other benefits such as greater community cohesion and less social isolation.[40]

Future trends: The emphasis for the delivery of new green infrastructure will be on meeting the need created as a consequence of new development including connecting with and improving existing infrastructure, where possible. Key opportunities for improving Green Infrastructure (GI) in West Berkshire include:-

- Adopting Sustainable Drainage systems to alleviate flooding
- Creating green spaces and planting within development to provide shade, cooling and wind interception and an insulation role in winter.
- Forming buffers and wildlife corridors for key habitats and species.
- Providing good quality, accessible green space and infrastructure within development to improve health and wellbeing, create an attractive place to live and work.
- Maximising the number of functions and benefits delivered by each GI asset.
- Interconnecting GI assets to form a strong GI network of green spaces and corridors which deliver the range of GI functions.
- Focusing and prioritising GI investment on economic growth points where the majority of people will be located in the future or where there is an economic need (such as recreation) to deliver multiple GI benefits.

Climate Change and Resource Efficiency

Climatic factors

The World Meteorological Organization (WMO) requires the calculation of averages for consecutive periods of 30 years, with the latest covering the 1961-1990 period. However, many WMO members, including the UK, update their averages at the completion of each decade. Thirty years was chosen as a period long enough to eliminate year-to-year variations. These averages help to describe the climate and are used as a base to which current conditions can be compared.

Changing weather patterns may be seen as direct indicators of climate change. The Met Office's average figures for the South East of England (South East and Central South) for 1971-2000 indicate that **minimum daily temperatures** ranged from 1.2 ^{o}C in February to a minimum of 11.9 ^{o}C in July, while **maximum temperatures** ranged from 7.2 ^{o}C in January to 21.7 ^{o}C in July. **Average monthly rainfall** in the South East varies from 45.2mm in July to 86.1mm in December with an average annual total of 776.8mm.

[40] Local action on health inequalities: Improving access to green spaces. Health Equity Evidence Review 8: September 2014

Figure 11 – Average annual rainfall (mm) 1971 – 2000

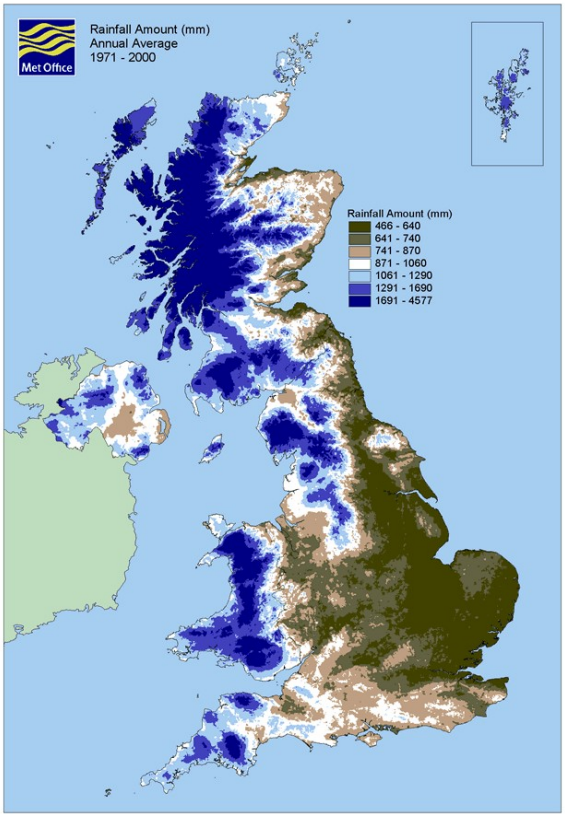
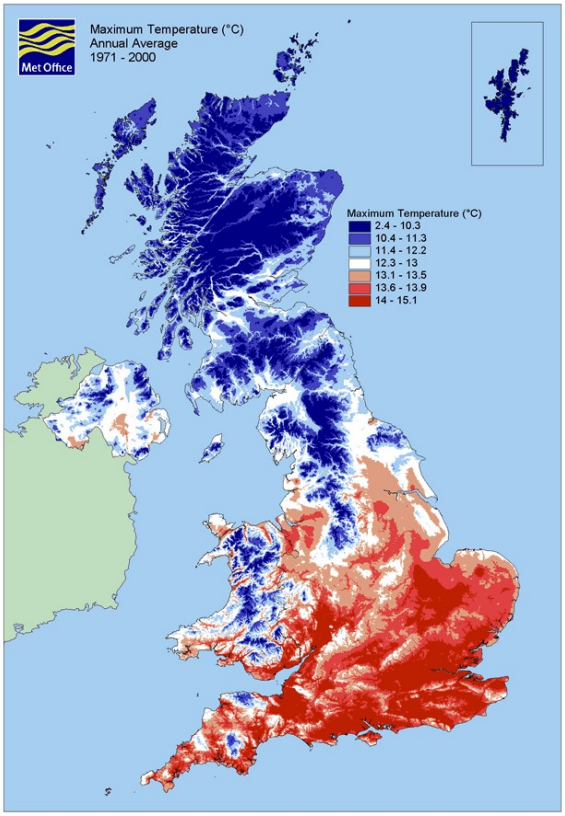


Figure 12 Average annual max. temp.(°C) 1971 - 2000



Source: Met Office (Crown copyright). www.metoffice.gov.uk

The UK Climate Projections, known as UKCP09[41] consolidate other scientific reports and provides a basis for studies of impacts and vulnerability and decisions on adaptation to climate change in the UK over the 21st century. It provides observed trends in UK climate. A summary of the main findings are:

- Warming of the global climate system is unequivocal, with global average temperatures having risen by nearly 0.8 ºC since the late 19th century, and rising at about 0.2 ºC/decade over the past 25 years.
- Central England Temperature has increased by about 1 ºC since the 1970s with 2006 being the warmest on record. It is likely that global emissions of man-made greenhouse gases have contributed significantly to this rise.
- Annual mean precipitation over England and Wales has not changed significantly since records began in 1766. Seasonal rainfall is highly variable, but appears to have decreased in summer and increased in winter, although with little change in the latter over the last 50 years.
- All regions of the UK have experienced an increase over the past 45 years in the contribution to winter rainfall from heavy precipitation events; in summer all regions except NE England and N Scotland show decreases.
- Severe windstorms around the UK have become more frequent in the past few decades, though not above that seen in the 1920s.
- Sea-surface temperatures around the UK coast have risen over the past three decades by about 0.7 ºC.
- Sea level around the UK has risen by about 1 mm/yr. in the 20th century; the rate of rise in the 1990s and 2000s has been higher than this.

Defra announced in January 2016 that the UK Climate Projections will be updated following the Paris Agreement on Climate Change (December 2015).[42] The Environment Agency's guidance 'Flood risk

[41] Defra, (2009) Adapting to Climate Change: UK Climate Projections
[42] Meteorological Office UK Climate Projections UKCP18 project announcement

assessments: climate change allowances' 2016 provides allowances for anticipated change in peak river flow by river basin district, peak rainfall intensity, sea level rise, offshore wind speed and wave height to help planners, developers and their advisors to understand the likely impact of climate change rivers and coast.

Within the Thames River Basin District the following medium future scenario is projected by 2055[43]

- Winter precipitation increases of around 15%.
- Precipitation on the wettest day in winter up by about 15%.
- Relative sea level at Sheerness likely to be up between 10cm and 40cm from 1990 levels.
- Peak River flows in a typical catchment likely to increase by 15%.

Climate Change is also likely to lead to reduced water quality due to lower summer flows, and increased water temperatures which could lead to higher concentrations of pollution and algal blooms, which could in turn impact on habitats and local wildlife.

At present, the health burden due to low temperature exceeds that of high temperature. However, heat-related mortality, which is currently around 2,000 premature deaths per year, is projected to increase steeply in the UK throughout the 21st century, from around a 70% increase in the 2020s to around 540% in the 2080s in the absence of any physiological or behavioural adaptation of the population to higher temperatures. Southern, central and eastern England appear to be most vulnerable to current and future effects of hot weather compared with other UK regions. Cold is still likely to contribute to the majority of temperature related health effects over the coming decades, although the health burden due to the cold is projected to decline by the 2080s compared with the present day levels. The elderly are more vulnerable to extreme heat and cold than younger people, so future health burdens are likely to be amplified by an ageing population. Additionally, increasing temperatures is projected to lead to an increased ozone related health burden, possible effects on aeroallergens, building overheating and indoor pollution, the effect on ambient levels of Ultraviolet radiation and possible higher levels of exposure, and the influence on air, water and food borne diseases [44].

Future trends: The data available indicates that planning for change must take place both in terms of mitigation and adaptation. Understanding and adapting to the realities of climate change will be one of the challenges the District will be faced with. The measures taken to respond to climate change can take many years, so it is important to develop flexible policy solutions to deal with the range of future weather conditions and possible new knowledge and technologies. Climate change scenarios for the UK (UKCIP02 and UKCP09) provide the best information on which to form an understanding of climate change, and show that it is expected to be more pronounced in the South East than in any other UK region. Nationally it is estimated that, under Medium emissions, there will be an annual warming generally by the 2080s with mean temperatures of up to 4.2ºC warmer in the south-east and with greater warming in summer and autumn than in winter and spring. Over the same period, although annual rainfall totals are not expected to show much change, winters are expected to be up to 33% wetter than at present, and summers about 40% drier[45]. A changing climate will bring about more storms, heavier rain, stronger winds and more summer heat-waves.

Climate change will have an impact on the landscape and our lifestyles and health; rare wildlife habitats and species may be threatened by the changing climate; farming could suffer from more pests, worse soil erosion and a decrease in agricultural land; more intense rain, rising sea levels and wetter soils will increase flood risk; and water supplies will be affected along with our demands made on them. Infrastructure is vulnerable to these changes through disruption (e.g. flooding), reduction in capacity or efficiency (eg long term rising temperatures) and impacts on design life of infrastructure and the services it provides.

[43] Defra, EA (2011) Climate change Information for Local Flood Risk Management Strategies, Thames River Basin District Map
[44] Health Protection Agency (2012) Health Effects of Climate Change in the UK 2012
[45] UKCIPO2 Climate Change Scenarios for the UK, UK Climate Impacts Programme, www.ukcip.org.uk.

Water quality and Contaminated Land

Water quality is assessed by the percentage of river length that has good chemical and ecological 'status'. Ecological status, in turn, is defined as a combination of physico-chemical elements (e.g. nutrients, pH and dissolved oxygen), biological elements (e.g. fish and algae), specific pollutants and hydromorphology (e.g. depth, width and flow). The Water Framework Directive and the Thames River Basin Management Plan 2015 set the baseline 'status' for water bodies in West Berkshire, below which there should be no deterioration and future objective 'status' to be achieved by 2027.

Poor water quality is typically due to a combination of agricultural runoff, untreated drainage from built-up areas and roads, and discharge from wastewater treatment works. It can affect people's health, and that of plants and animals.

The main catchment in the District is the Kennet and its tributaries. Surface water quality is generally moderate for ecology and good for chemical status.[46] Pollution from rural areas and waste water, physical modifications and changes to natural level and flow of water are some of the main challenges in the catchment.

Diffuse pollution remains the major issue affecting groundwater quality. Nitrates continue to impact a significant fraction of aquifers across West Berkshire. There are no Nitrate Sensitive Areas in West Berkshire, but there are large areas covered by Nitrate Vulnerable Zone (NVZs).. NVZs apply to areas where surface and/or groundwater contains nitrate concentrations in excess of 50mg/l and to bodies of water that are or may become enriched by nitrogen compounds which cause a growth of algae and other plant life that unbalances the quality of the water and to organisms present in the water. The widespread classification of NVZs in West Berkshire is reflective of the land use within the area and the intensive agricultural practices which are employed. As a consequence farmers within NVZs are required to comply with mandatory Action Programme measures designed to protect both ground and surface waters against pollution caused by nitrates from agriculture.

In 2017, 58% of England was designated as a Nitrate Vulnerable Zone (NVZ). Approximately three quarters of West Berkshire is now designated as a NVZ, including Newbury, Thatcham and the eastern part of the district including Theale and Calcot.

Three different types of NVZs have been identified in West Berkshire:
- Surface Water;
- Groundwater; and
- Eutrophic waters.

The most prominent is the groundwater NVZ, which covers much of the northern and western areas of West Berkshire.

Groundwater Source Protection Zones (SPZs) have been defined by the Environment Agency in England and Wales to protect groundwater sources such as wells, boreholes and springs that are used for public drinking water supply. The zones signal the risk of contamination from certain nearby activities that might cause groundwater pollution in the area. SPZs cover a large part of West Berkshire mainly in the central and eastern part of the District. The River Thames forms part of the northern boundary of the District. The River Kennet flows through Newbury on its way to Reading, and the River Lambourn joins the Kennet at Newbury. There are a total of 25 SPZs either fully or partially contained within the District. Eight of these are Inner SPZs, 7 are Outer SPZs and the other 10 are Total Catchment Zones. The majority is Zone 3 with 8 main areas identified as Zone 1 and 2 clustered around Newbury and the eastern boundary bordering Reading.

Groundwater Vulnerability Zones vary from 'high' in parts of the west and north of the District to 'medium/medium-low' in the east and south. New maps produced by the Environment Agency show the vulnerability of groundwater to a pollutant discharged at ground level based on hydrological, geological, hydrogeological and soil properties within a single square kilometre. It can be used as a

[46] Thames River Basin Management Plan 2015 – Kennet summary

high level screening tool to give an indication of whether a proposed site allocation is likely to be acceptable or of potential concern.

West Berkshire Council has due regard to the Water Framework Directive and the Thames River Basin Management Plan with respect to future development planning. The zoning above will assist in the site selection process for the Local Plan Review.

Contaminated Land

Contaminated land in the UK is a legacy of our industrial past. Industrial processes such as gas works, chemical works and waste disposal have resulted in large number sites whose soils are contaminated with a wide range of hazardous chemicals. The contaminants resulting from some of these industrial activities can lie hidden in soils, posing a health risk to humans that unknowingly come into contact with them. They can also pollute our groundwater, surface waters (rivers, streams and lakes) as well as wildlife and ecological conservation areas.

Although West Berkshire has never been a heavily industrialised area, the district does have its own legacy of contaminated land that needs to be dealt with. To date, 2 sites have been declared contaminated land under Part IIA of the Environmental Protection Act 1990 and approximately a further 1200 potentially contaminated land sites have been identified within the district.

West Berkshire's industrial history can be traced back to at least Roman times with the manufacture of pottery, iron and woodcrafts. The industrial revolution during the latter part of the 18th century impacted strongly on parts of the county but left many areas untouched. Agriculture was the major employer and industries were related either to serving an agriculture economy or processing the materials produced in the area. Due to the various types of clay deposits found throughout the county the brick making industry flourished until World War II but declined during the 1950s. Gravel was not used extensively until the 20th century and the subsequent use of exhausted gravel pits as landfill sites for refuse disposal was another essential major industry. Current land use is dominated by agriculture, covering 74% of the District. The remaining land is either residential or used for commercial or light industrial activity. The area has a high concentration of high – tech firms, a renowned racehorse industry and a number of areas owned or previously owned by the Ministry of Defence. They are; AWE Burghfield, AWE Aldermaston, RAF Welford, and Greenham Common. Greenham Common has been decommissioned and is now owned by a trust of which West Berkshire District Council is a part. The other three sites remain operational.

Future Trends: Meeting water quality standards is a challenge for the Thames Basin and West Berkshire. Together with tightening water quality standards and targets to comply with the Water Framework Directive, a growing population and development pressures are placing extra demands on the sewerage treatment infrastructure and the waters receiving effluent. The New Local Plan will need to consider the increase in housing numbers in relation to point source pollution and the infrastructure.

The Council Contaminated Land Strategy provides an updated roadmap for how it intends to continue to deal with declared part II EPA sites and the threats arising from contaminated land in the district.

Water supply

Water is the most essential of natural resources. It must be managed and used sustainably. South East England is the driest and most densely populated part of the UK yet uses the most water per person. Consequently pressure upon water resources is high, and there are many areas wherein there is little or no water available for abstraction during drier periods.

Water resources within West Berkshire are managed by water and wastewater services company Thames Water. The District is located within two Water Resource Zones; the Kennet Valley Resource Zone and the Swindon and Oxfordshire Resource Zone (SWOX). Above ground water resources include the rivers Pang, Lambourn and Kennet. The primary groundwater resource is the chalk aquifer that underlies much of eastern and southern England, this aquifer is tapped by a number of bores that supply potable water to the district. The majority of abstractions are from groundwater and abstraction

for public water supply predominates[47]. Consumption and abstraction must be sustainable and not damage the environment. The Environment Agency, in its document *Water for People and the Environment (2009)*, indicated that West Berkshire is within an area with "serious levels of water stress". In addition, much of the district has water resources that are either over licensed, over abstracted or there is no water available for abstraction[48].

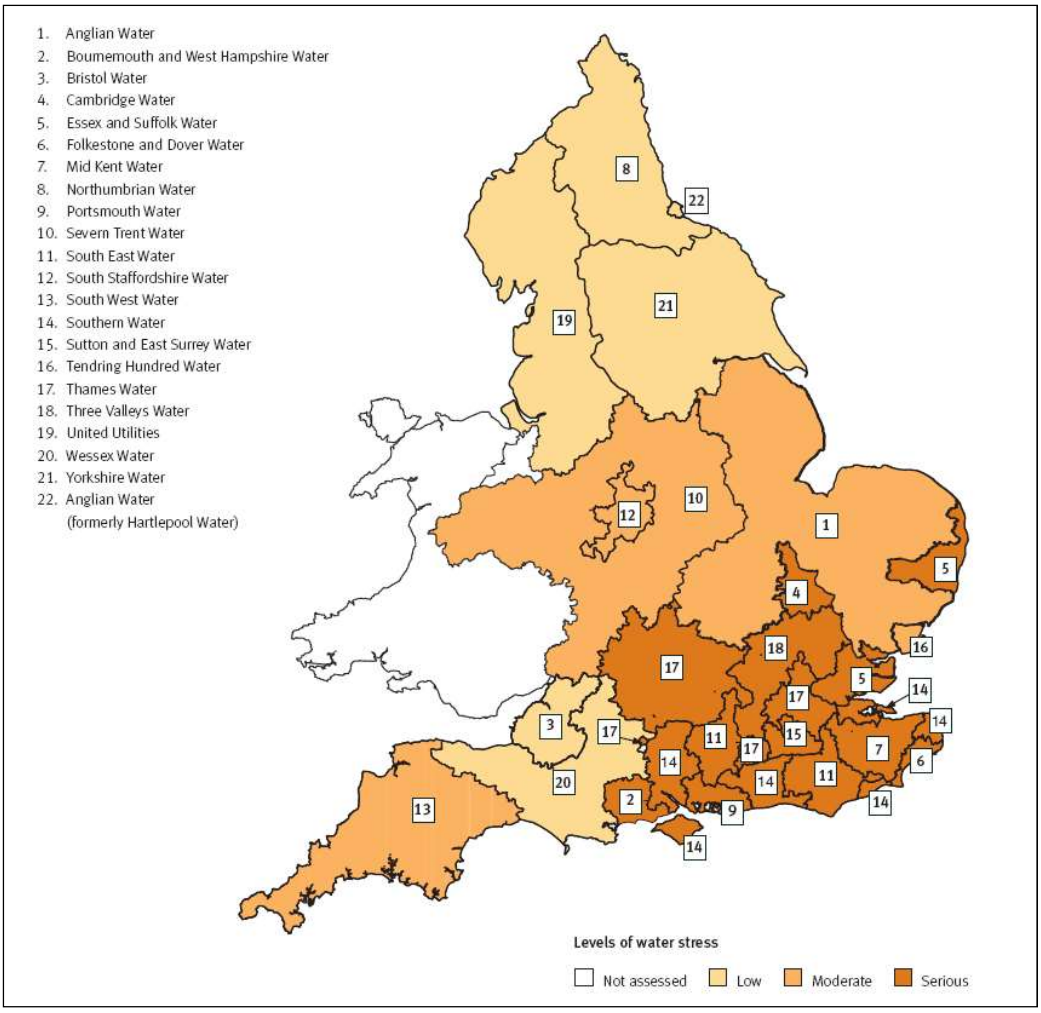
Future Trends: Climate change is anticipated to have an impact on water supply due to more extreme climatic variability. Hotter summers are expected to result in increased water usage and reduce the period when groundwater sources can refill, in addition, soil moisture is expected to be reduced in summer, resulting in increased use of irrigation for crops. Overall, increased population and the effects of climate change are going to place greater pressures on a finite resource. The Environment Agency suggests that within less than thirty years there will be a major water shortage in the South East unless there is a reduction in the amount of water used or new resources are found. Water conservation measures are going to be required to ensure an adequate water supply into the future. Baseline water supplies are forecast[49] to reduce over the Thames Water area during the Water Resource Management Plan 2015 - 2040 planning period due to the impact of climate change on groundwater sources and sustainability reductions as defined by the Environment Agency NEP3. However, sustainability reductions are not forecast for the Kennet Valley Water Resource Zone (WRZ). In the SWOX zone Thames Water predict a supply demand deficit in both dry year annual average and dry year critical period where the deficit will grow from -1 Ml/d in 2020 to -32 Ml/d by 2040resulting in a supply that is not secure without corrective action. This mean there is a greater probability that demand restrictions will be required in dry years and demand management, such as metering, and resources options are being considered with the former being basis of a preferred plan. By contrast, Kennet Valley WRZ is predicted to remain in surplus throughout the planning period to 2040, though the WRMP preferred plan features promotion of water efficiency and a roll out of household metering. This approach will help to manage demand particularly in case of drought, the protection of sensitive European designated sites, and to apply a consistent policy to customers across the Thames Water area.

[47] Kennet and Vale of White Horse Catchment Abstraction Management Strategy (CAMS)

[48] Water for people and the environment, Water Resources strategy for England and Wales (2009) Environment Agency, www.environment-agency.gov.uk

[49] Water Resource Management Plan 2015 – 2040 (Thames Water)

Figure 13 – Water Stressed Areas in England



Source: Environment Agency (Crown Copyright). www.environment-agency.gov.uk

Flood risk

There are various forms of flooding which all present various levels of risk. Flooding can occur from rivers, the sea, from land, groundwater, sewers, reservoirs, canals and other artificial sources. West Berkshire has undertaken a Strategic Flood Risk Assessment (SFRA)[50] as required by the NPPF, in consultation with the Environment Agency to "determine the variation of flood risk across and from their area as the basis for preparing appropriate policies for flood risk management for these areas".

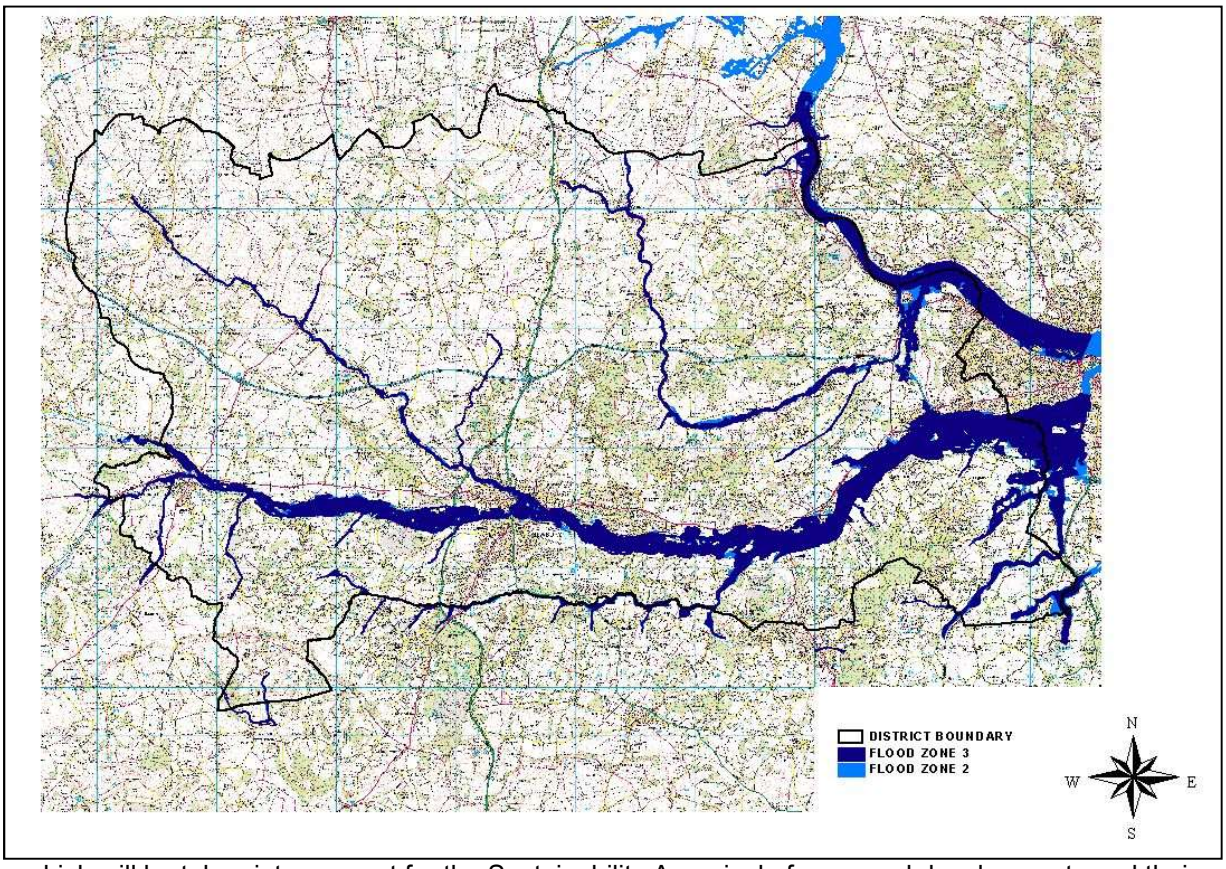
The Environment Agency (EA) provide climate change allowances to be considered as part of flood risk assessments. They are based on climate change projections and different scenarios of carbon dioxide (CO2) emissions to the atmosphere. The EA provides predictions of anticipated change for the following:

- peak river flow by river basin district
- peak rainfall intensity
- sea level rise

[50] West Berkshire Council, Strategic Flood Risk Assessment Level 1, 2008 (updated 2015)

- offshore wind speed and extreme wave height

An updated SFRA is currently being prepared and together with the existing SFRA will inform the West Berkshire Local Plan Review and highlight requirements for specific development sites in relation to flood and drainage infrastructure. The new SFRA is expected to be published in 2018 and will include assessment of the potential impact of climate allowances in the Thames Basin District and



which will be taken into account for the Sustainability Appraisal of proposed developments and their vulnerability to flood.

Figure 14 – Flood Zone Map of West Berkshire
Source: Environment Agency (Crown Copyright) www.environment-agency.gov.uk

The risk of flooding within West Berkshire is widespread, arising not only from rivers but also from surface water and groundwater flooding. The events of the summer of July 2007 and January and

February 2014 were reminders of the impacts that flooding can have upon the local community. A relatively large number of homes and businesses within West Berkshire are at risk of flooding, arising from a number of sources including river flooding, localised runoff, groundwater flooding, some surface water flooding and infrastructure failure. The SFRA has delineated the District into zones of 'low', 'medium', and 'high' probability of fluvial flooding in accordance with national guidance (as set out then in PPS25 and since taken into account under the NPPF), it has modelled the impacts of climate change, and it has investigated the risk of groundwater and surface water flooding which has resulted in a series of 'Critical Drainage Areas' being identified to inform the planning process.

Future Trends: A considerable amount of research is being carried out worldwide in an endeavour to quantify the impacts that climate change is likely to have on flooding in future years. Climate change is perceived to represent an increasing risk to low lying areas of England, and it is anticipated that the frequency and severity of flooding will change measurably within our lifetime.

According to the SFRA for West Berkshire, climate change will not markedly increase the extent of river flooding within most areas of the District, however those properties (and areas) that are currently

at risk of flooding may be susceptible to more frequent, more severe flooding in future years. The 'best practice' approach adopted throughout England is that Flood Zone 2 Medium Probability is considered a reasonable approximation of the likely extent of the High Probability Flood Zone in 100 years as a result of climate change. Climate change will also potentially increase the frequency and intensity of localised storms over the District, this could exacerbate localised drainage problems.

Locating developments outside areas of flood risk is essential to avoid a legacy of economic, social and environmental costs as is maintaining existing flood risk management infrastructure and ensuring all development incorporates sustainable drainage systems to minimise surface water flood risk.

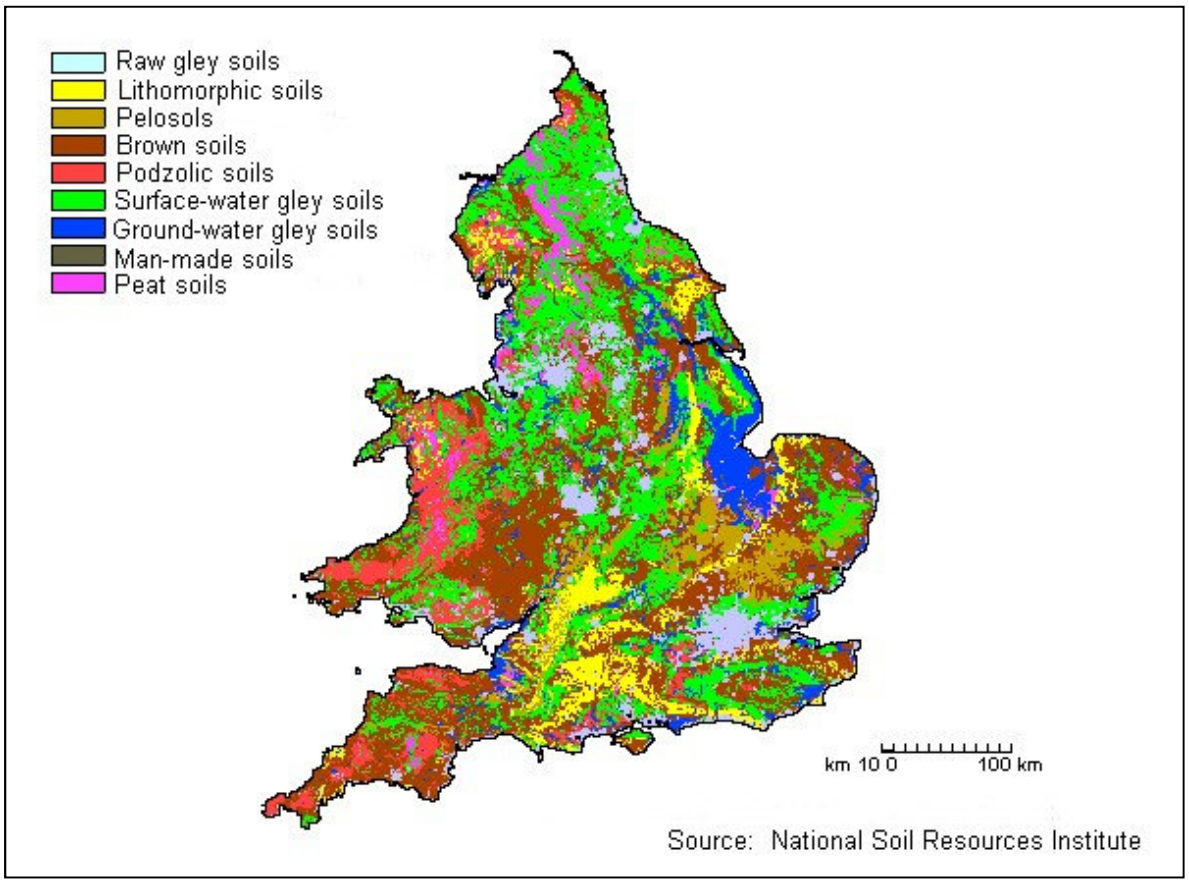
Land use planning in urban areas can make an important contribution to the management of water resources as changes to the built environment have significant implications for water use and quality (as runoff or as treated wastewater). For example, green infrastructure can promote innovative, cost-effective and environmentally sustainable approaches to management of water in cities. Natural Flood Management can benefit both flood alleviation and biodiversity. A variety of technologies are being developed or are now available which mimic natural processes that slow down, store or reduce storm waters.

EU Member States have agreed on a new policy framework for climate and energy, including EU-wide targets for the period between 2020 and 2030. The targets include reducing the Union's greenhouse gas (GHG) emissions by 40 % relative to emissions in 2005 and ensuring that at least 27 % of the EU's energy comes from renewable sources. With the UK exit from the European Union it is not certain how much of this framework will transition into domestic policy and action. The Clean Growth Strategy 2018 sets out policies and proposals that will increase demand for low carbon technologies and installations including a review of Building Regulations and improving energy efficiency in new and existing buildings (commercial and residential), investing in low carbon heating, developing leading electric vehicle charging networks to support the take-up of ultra-low emission vehicles. Without being sure of all the technological developments, renewable energy and its facilities will be part of the energy supply.

Soil

West Berkshire has a number of different soil types ranging from sandy with low fertility, to loamy with high fertility. There are naturally wet soils associated with river valleys and dry well drained soils on hillsides. The Environment Agency, DEFRA, and other research bodies concerned with soil science, such as the National Soil Resources Institute, have been undertaking research on soils in the UK and are actively promoting the protection of soil health. Healthy soils are vital to a sustainable environment. They produce food and timber, filter water, store carbon, support wildlife and the built landscape, and preserve records of our ecological and cultural past.

Figure 15– Soil types of England and Wales



Erosion of soil and compaction, decline in organic matter/carbon storage through intensive agricultural activities, contamination by heavy metals, nutrient loss, and degradation of soil biodiversity, atmospheric pollution and the effects of climate change are all threats to the ongoing sustainable use of soils in the UK. In West Berkshire, increasing urbanisation, the continuation of unsustainable agricultural activities and the potential for increased flooding due to climate change are the major concerns.

Future Trends: There is evidence that soil degradation is continuing in the UK and around the world despite greater awareness of the importance of soils. Building resilience of soils to a changing climate through a supportive policy framework has potential to support wider adaptation of the economy and society to climate change, for instance, the contribution of soils to coping with drought, regulating drainage of heavy rainfall, helping to prevent flood and carbon storage. DEFRA has developed a *Soil Action Plan for England (2004-2006)* and A *Strategy for England: Safeguarding our Soils (2009).* The intention of the Action Plan and Strategy is to increase the sustainable use of soils in England and ensure that the protection of soil protection is a consideration in decisions made relating to land use planning process including *inter alia,* dealing with contaminated land and providing green space for communities. There is increasingly a better understanding of the importance of soils to sustainable agriculture and food production. Sustainable agricultural techniques and organic food production methods have increased in recent years and are predicted to continue to gain importance in the future.

Previously developed land

The NPPF encourages the re-use of previously developed land and the Government has committed to having planning permission or permission in principle in place on 90% of suitable brownfield land by

2020. As such, 84% of West Berkshire's gross residential completions (2006/07 – 2015/16)[51] have been on previously developed land.

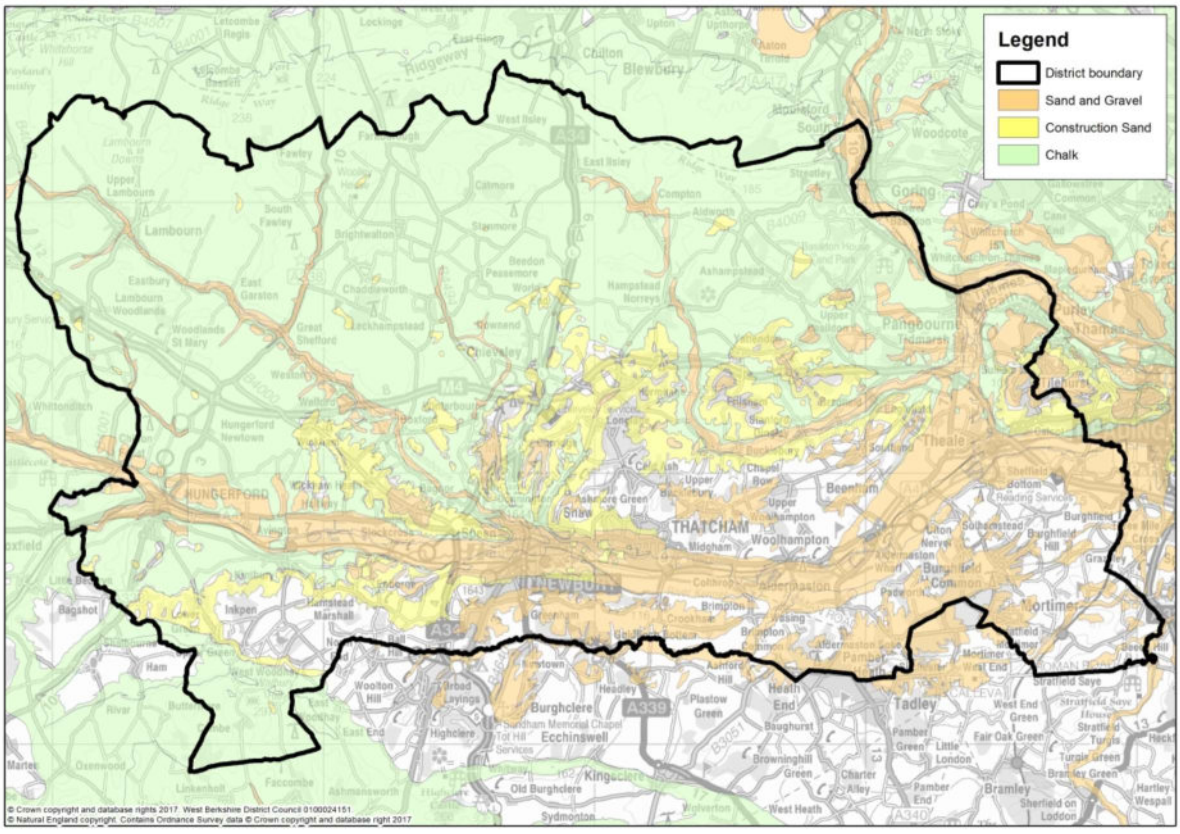
As required by the Town and Country Planning (Brownfield Land Register) Regulations 2017, the Council is compiling their Register. Brownfield land registers will provide information on brownfield sites that local authorities consider to be appropriate for residential development having regard to the criteria set out in the 2017 Regulations.

Future Trends: In the past it was anticipated that the amount of previously developed land available for development in West Berkshire would decline as government policy of focusing development on previously developed land continued to take effect. With the advent of the brownfield register and its intent to drive the availability of land for housing, it is possible that the trend could be reversed. The reduced reliance on windfall development contributing to supply may also mean that the level of Greenfield allocations may need to be higher than in the past.

Minerals

West Berkshire has historically been a major area for mineral extraction. In the past, clay and chalk were the main minerals produced, however since the beginning of the 20th Century, aggregates such as sand and gravel have been the main minerals extracted to supply the building and construction industry. Sharp sand and gravel has been the most widely extracted mineral resource in West Berkshire in recent years, although both the number of sites producing and the level of production have dropped significantly year on year since 2007. Sand and gravel deposits in West Berkshire are primarily situated along the Kennet Valley between Newbury and Reading.

Figure 16 – West Berkshire Mineral Resources



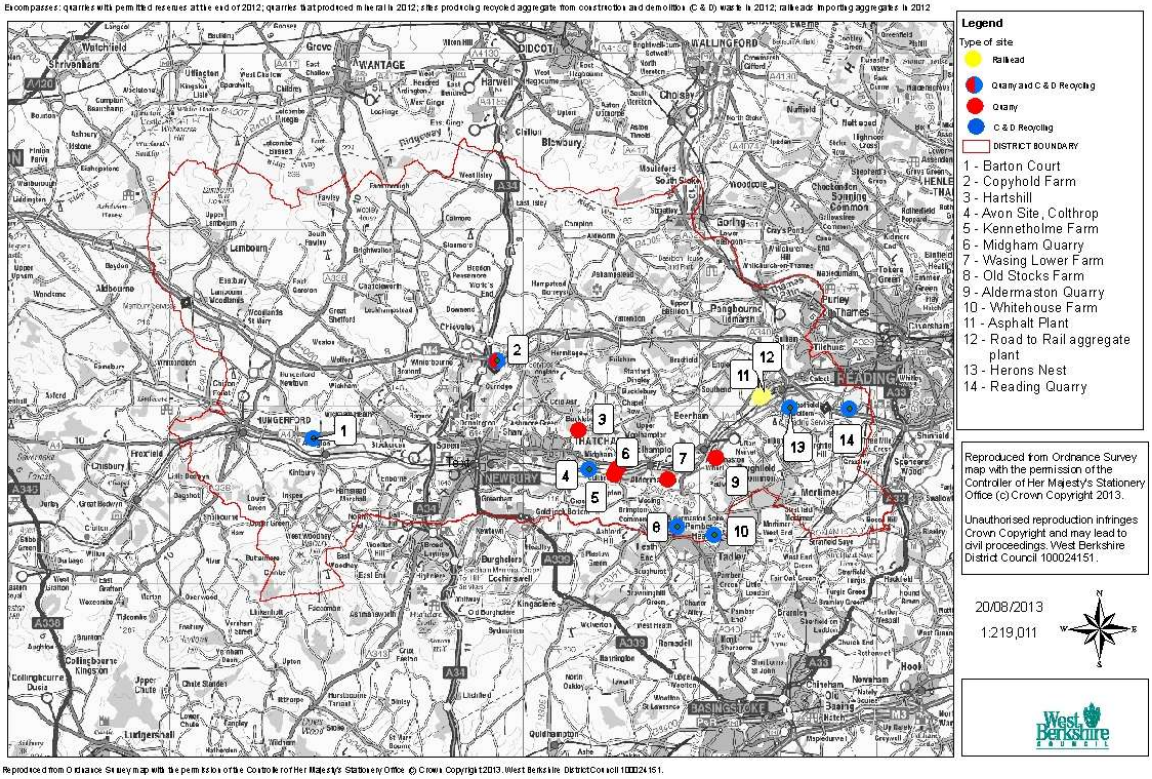
Source - Minerals and Waste Local Plan (Preferred Options) May 2017

[51] West Berkshire Local Plan Annual Monitoring Report 2016

West Berkshire includes three major depots for importing aggregates by rail, and one of these depots is associated with an asphalt plant. These are situated on adjacent sites at Theale, and are chiefly used to import crushed limestone from the Mendips and Derbyshire, as well as marine sand and gravel landed at a wharf in East London.

Figure 17 below shows the sites in West Berkshire (situation as at 2015) which are involved in producing and importing construction aggregates. These include quarries extracting sand and gravel, waste processing sites which produce recycled aggregates, and rail depot sites which import primary aggregates.

Figure 17 – Mineral sites in West Berkshire as at 2015



Future Trends: Minerals are a valuable but limited resource that can only be won where they naturally occur. Safeguarding of viable or potentially viable mineral deposits from sterilisation by surface development which would preclude their possible extraction at some future date is an important component of sustainable development. Government advice is that planning authorities should make every effort to safeguard mineral deposits that are or may become of economic importance, against other types of development.

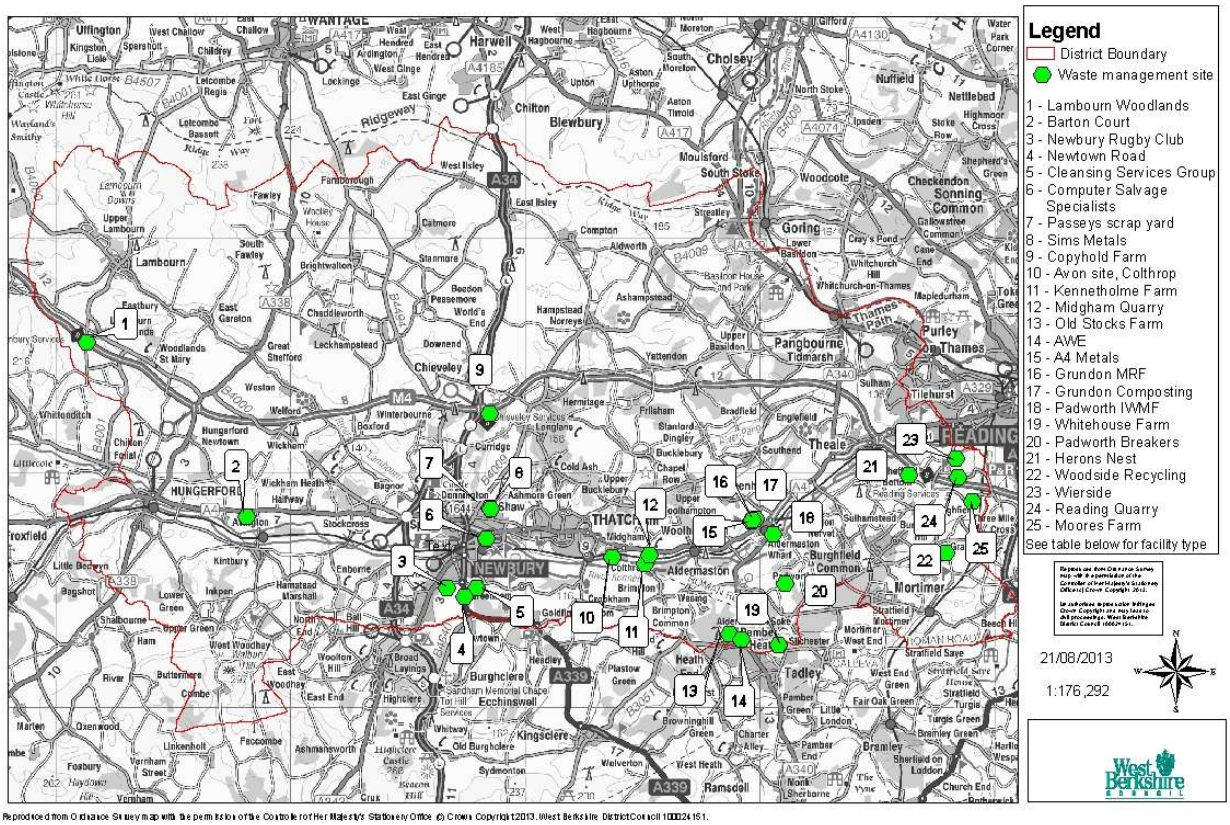
The recycling of construction and demolition waste into aggregates is likely to increase in the future, although the availability of construction and demolition waste and hence the ability to produce recycled material is dependent on the level of development being undertaken. Similarly the demand for virgin aggregates for building and construction are largely dependent on the economic situation. It is accepted that there will continue to be a requirement for primary aggregates as recycled material is not a suitable replacement for all construction applications.

Minerals are a finite resource and the sharp sand and gravel reserves between Newbury and Thatcham and outside the AONB are largely worked out. As a result of this there may be pressure for mineral development in the AONB in the future.

Waste

In England about 177 million tonnes of waste per year[52] is produced, about a quarter of which comes from homes and businesses. In West Berkshire about 747,000 tonnes of controlled waste was handled in 2015/16. Of this 12% was Local Authority Collected Waste (LACW), 38% from commercial and industrial waste (C & I), 48% from construction, demolition and excavation (C,DE) and 2% hazardous waste. The map below shows the locations of permitted Waste management sites in West Berkshire.

Figure 18 – Permitted Waste Management Sites in West Berkshire



The total estimated waste management capacity in the District (excluding transfer) is about 960,000 tonnes[53]. According to the Environment Agency's Waste Data Interrogator (WDI), there has been significantly more waste managed in West Berkshire than was recorded as arising there, thus indicative of West Berkshire's service across administrative boundaries.

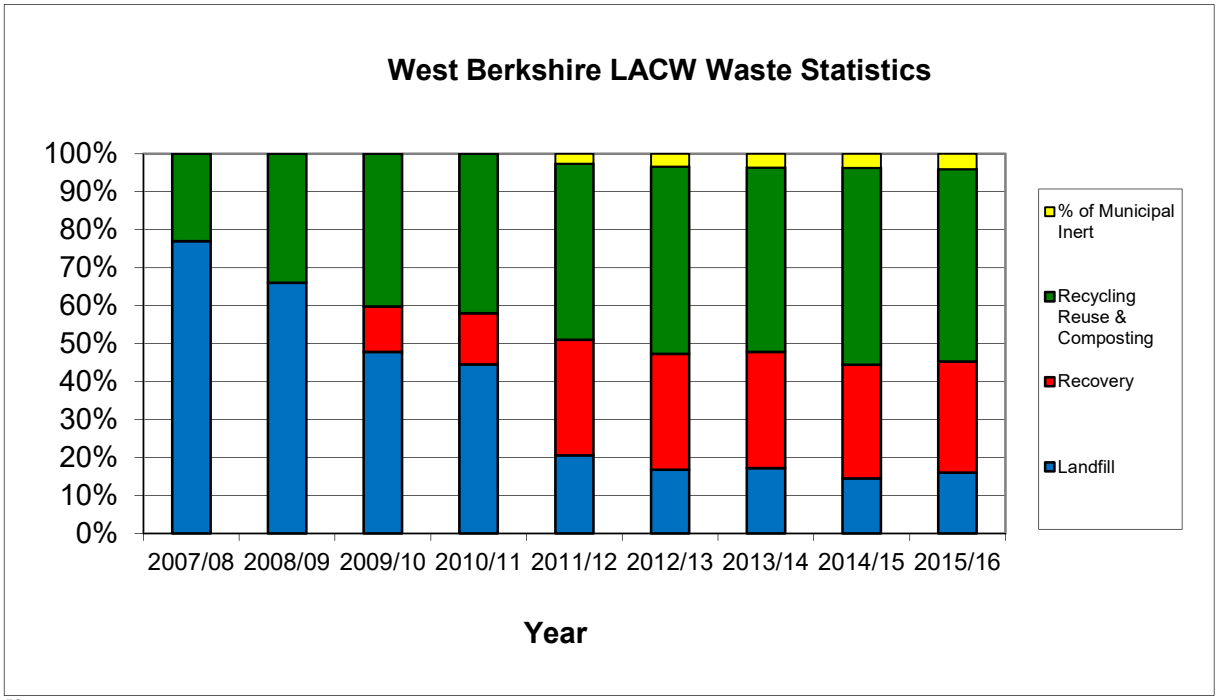
A number of observations[53] can be made about the existing waste management facilities in West Berkshire:

- West Berkshire has no hazardous landfill capacity.
- West Berkshire has no non-hazardous landfill capacity.
- West Berkshire has no low level or intermediate level radioactive waste disposal capacity.
- West Berkshire has very little waste recovery capacity (and the little that there is generates heat or electricity by burning wood waste).

Reliance on landfill for Local Authority Collected Waste has reduced over time, from circa 77% of all waste in 2007/08 to circa 17% in 2015/16. The graph below shows the trends in Local Authority Collected Waste management in West Berkshire.

[52] DEFRA Policy Paper: Waste and Recycling 2015

[53] West Berkshire Council (2017) Local Waste Assessment



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Future Trends: The UK Government is committed to continuing to move the UK towards a position where waste generation is minimised and the quantities of waste that are generated are seen as an important resource that can be re-used and recycled, and only disposed to landfill as a last resort.

West Berkshire Council developed a Waste Management Strategy (2002–2022)[54] which sets out the Council's objectives and standards for the management of LACW in the district. It sets out the long-term vision for the management of LACW, focusing on the maximisation of recycling and composting.

The emerging Minerals and Waste Local Plan (MWLP), which considers all waste streams, will provide the local planning policy against which planning applications for minerals and waste development will be assessed, guiding development to suitable sites throughout the anticipated plan-period to 2036. As part of the development of the evidence base for the MWLP, the Local Waste Assessment was produced in 2017 indicating that the total arisings currently are estimated to be approximately 751,000 tonnes per annum and by 2036 arisings are predicted to be a maximum of approximately 838,000 tonnes[53]. The authority has generally sought to adopt the worst case projections, that remain realistic, that have been identified for each of the waste streams. As such it is considered that the projected arisings for 2036 are robust and may indeed overestimate the actual level of arisings at this date. The increase predicted by 2036 is largely due to a potential increase in LACW and C & I waste. Therefore, at this point it is anticipated there would be 'headroom' in terms of available waste management capacity throughout the plan-period even after factoring in temporary consents.

Recycling and composting (aspirational target) for West Berkshire 2016/17 to 2031/2032 is 56%. At 2015/16 it was 54%[53].

Renewable energy

Renewable energy (RE) can play a major role in sustainable development and mitigating Climate Change effects. The UK is committed under the Renewable Energy Directive 2009 to achieve 15% of its energy consumption from renewable sources by 2020. The UK Government Clean Growth Strategy 2018 sets out a comprehensive set of policies and proposals that aim to accelerate the pace

[54] http://info.westberks.gov.uk/CHttpHandler.ashx?id=36818&p=0

of 'clean growth', i.e. deliver increased economic growth and decreased emissions which should see an increase in demand for renewable energy technologies.

Regional Planning Guidance, since rescinded nationally, nevertheless helped to set a benchmark for renewable energy development through the South East Plan. This aimed to have 209MW of installed capacity in the Thames Valley by 2016. The target set for West Berkshire was 18.5MW by 2016[55]. However, by the end of 2011, the district was well short of this figure. By then there were 273 renewable energy installations in West Berkshire with a combined installed capacity of 2.7 MW. This includes both heat and power and supplied approximately 1% of the district's total energy needs. The current installed capacity is about 15% of the previously designated 2016 target.

The current Core Strategy recognises that West Berkshire is one of the highest electricity users in the South East, is in the upper quartile of local authorities for CO2 emissions within the region and has high fuel poverty levels compared to other authorities. This is clear evidence and justification that West Berkshire needs to do more to meet national targets in relation to CO2 emissions reduction.

The Local Plan Review will have a major role in determining what can, and what cannot move forward relating to new energy infrastructure. It should support in principle, the development of renewable energy and build on existing criteria based policies. However, there are considerable non-technical barriers. Such development needs to be located and designed to minimise adverse impacts on landscape, wildlife and amenity. This is a major challenge where 74% of the District is AONB which will be a considerable influence on the scale and nature of any developments put forward within its boundaries. A strategic landscape sensitivity study for wind turbine development has been undertaken by the North Wessex Downs AONB which can be used to inform the production of the LDF.

The Atomic Weapons Establishment (AWE) has two bases in the District with implications for development within their consultation zones, in the interests of public safety.

Future Trends: Given the very many constraints on development, the West Berkshire Renewable Energy Strategy identifies three general areas where West Berkshire might seek to bring forward and influence renewable energy projects:

- Projects based on existing developments and housing (so 'retrofit' technology')
- Projects based on planned housing and commercial developments/ infrastructure (so 'new' but integrated developments).
- Projects based on 'greenfield' sites (so completely 'new' developments).

Economy and Infrastructure

Economy

West Berkshire is an integral part of one of the most prosperous sub regions in Europe, the so called Thames Valley business wedge spanning from South Buckinghamshire, South Oxfordshire, through all of Berkshire, North Hampshire, and Surrey. Along with Greater London and other parts of the South East, this region is recognised as "the economic engine" which leads and pulls along the rest of the UK economy.

Employment space is dominated by industrial (B1c/B2/B8) uses with office space accounting for just 31% of total stock.[56] Whilst B use class floor space is located across the area, it tends to be concentrated in and around the key commercial centres of Newbury, Thatcham and Theale, and to a lesser extent Hungerford. It is also clustered along the main transport routes and networks including the A4 and M4.

West Berkshire is well located and is bisected north to south by the A34 which connects the south coast with the Midlands. The Great Western Railway and the M4 motorway links South Wales and the

[55] Renewable Energy Strategy for West Berkshire, 2012

[56] Western Berkshire FEMA: Economic Development Needs Assessment October 2016

West with London, with the M4 running directly through West Berkshire from the east to west. These roads are also of European importance. The other main roads are the A339 connecting Newbury to Basingstoke and the A4 which runs east/west. The key urban centres in southern England (London, Reading, Southampton, Portsmouth, Bristol, Oxford and Swindon) are all within an hour's drive, as is Heathrow airport.

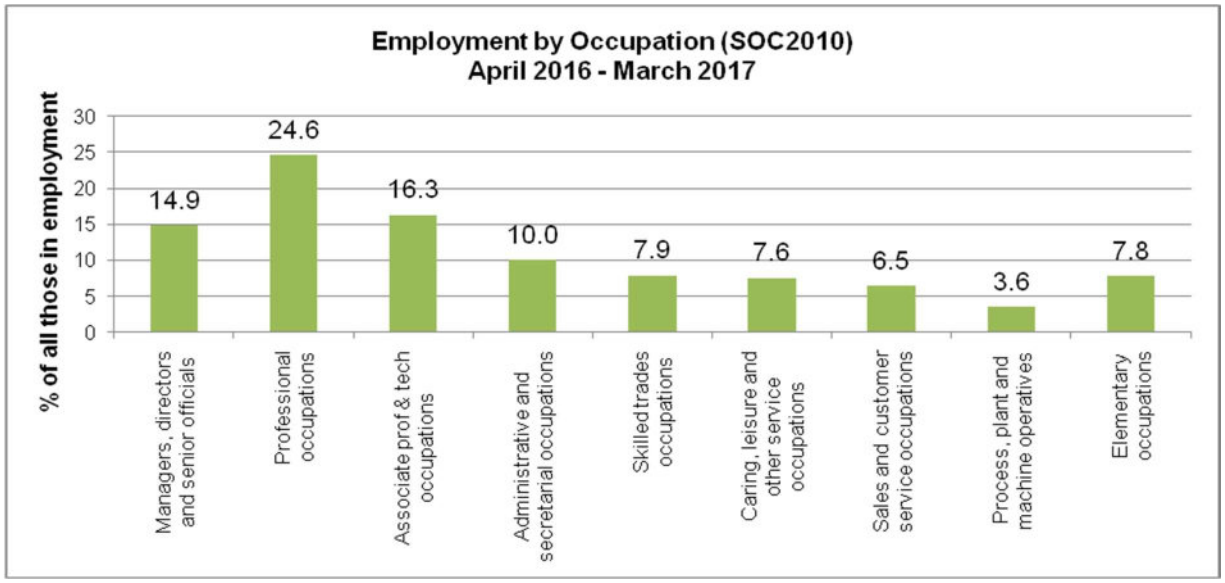
West Berkshire has the best rural broadband, as well as the highest median download speed in the UK. West Berkshire has 98.4% superfast broadband coverage and average mean best case download speeds of 355 mbps. Full coverage is expected by 2020.

Business Sectors

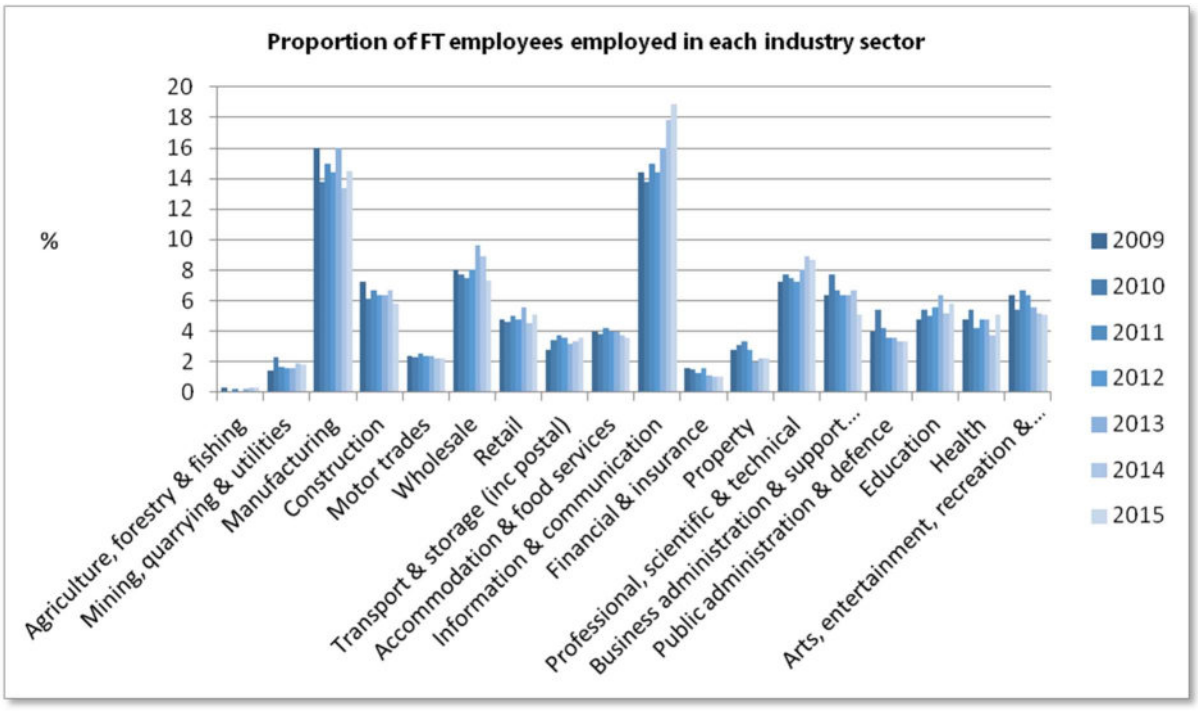
Whilst there are some very large businesses based in the area (AWE, Vodafone, Stryker, Micro Focus International plc), the vast majority of businesses are SMEs and cover a diverse range of sectors.

Size of West Berkshire Businesses 2016[57]	Micro Businesses (0-9 employees)	Small Businesses (10-49 employees)	Medium Businesses (50-249 employees)	Large (>250 employees)	Total
	7890	730	145	40	8805

The largest employment sector for West Berkshire for April 2016-March 2017 is Professional Occupations. This includes employment such as financial services, legal services, professional consultancy and IT consultancy services.[58]

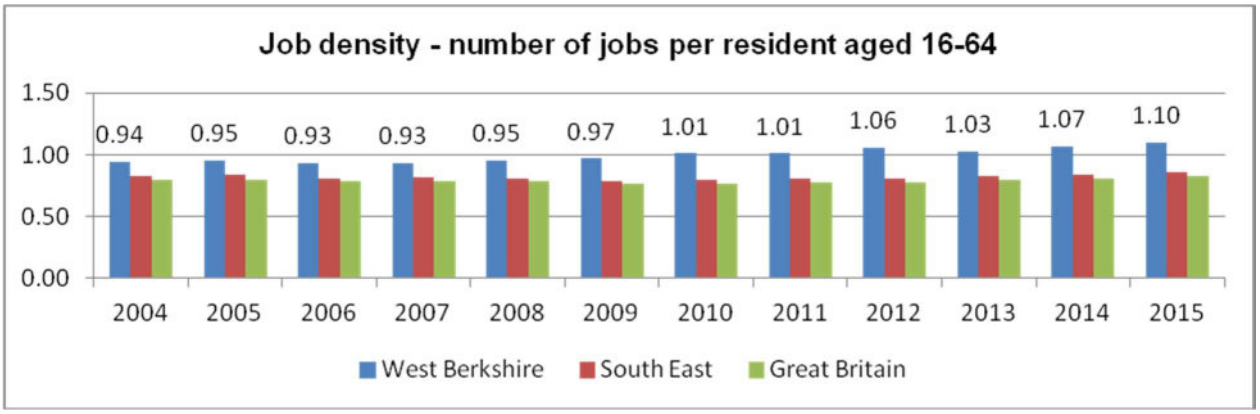


[57] Nomis Interdepartmental Business Register
[58] Nomis



Economically Active Population

West Berkshire enjoys low levels of unemployment compared with other areas of the South East and England. The job density figure represents the ratio of total jobs to working population. For example, a job density of 1.0 means that there is one job for every resident aged 16-64.[59]



81.6%[60] of the working age population in West Berkshire are economically active (i.e. are either employed, or unemployed but available to start work, looking for work, or waiting to start a job), higher than the rate for both the region and nationally. As well as having a higher proportion of people economically active, the district also has a significantly larger proportion of people in employment – and as a consequence, a lower proportion of people unemployed (i.e. available to start work and had either looked for work, or were waiting to start a job). The unemployment percentage of all working age adults in West Berkshire was 3.1% in March 2017, approximately 3000 people. This is the second lowest percentage in Berkshire, behind Wokingham at 2.8% (2000 people). Berkshire's

[59] Nomis
[60] Annual Population Survey, ONS March 2017

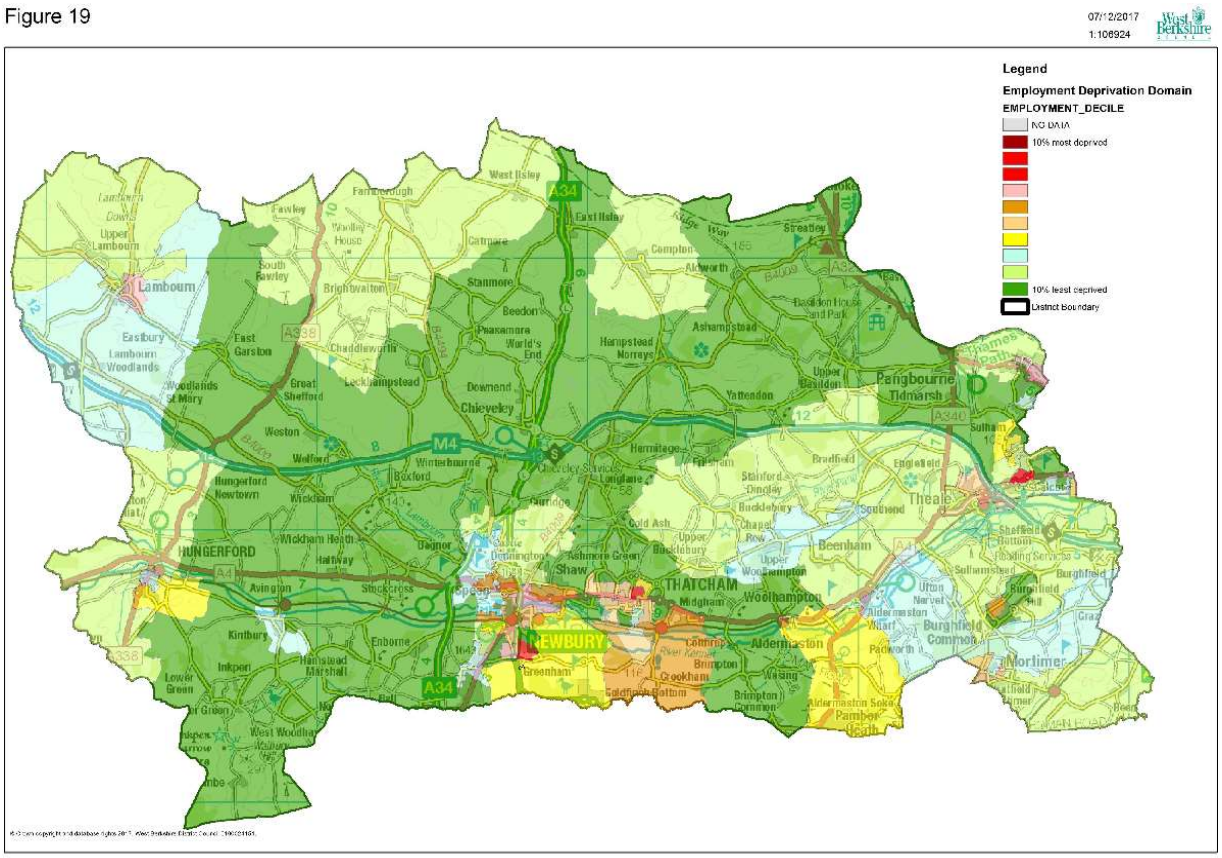
employment rate has now returned to its pre-recession peak of 79% and the unemployment rate has now fallen below the pre-recession low of 3.4% and is now at 3.2%.

With high employment rates it is likely that the greatest uplift in economic output will be driven through productivity improvements rather than by an increase in the number of people employed.

Employment deprivation

The darker areas on the map show the areas with higher levels of deprivation in this domain. Generally, West Berkshire is not particularly deprived in this respect, with only one area – Greenham – which sits within the lowest 3rd of areas in the country.

Figure 19 – Index of Employment Deprivation



Source: DCLG Indices of Multiple Deprivation 2015

The more deprived areas are concentrated around Newbury, Thatcham (notably the more rural area of Thatcham South and Crookham) and the Reading fringe as well as the more rural towns of Lambourn and Hungerford. Source: (www.communities.gov.uk) Whilst West Berkshire has high levels of employment there are pockets of high inequality within the District.

Demand for Employment space

Demand for industrial space remains strong and very low levels of vacancy reflect a limited supply of industrial accommodation (particularly modern, good quality space). Development of new industrial space has been limited in recent years, with much of the existing stock relatively dated and in need of refurbishment. Local commercial property agents report that demand for industrial premises is currently outstripping supply. Market demand for office space is reported to be steady, with

requirements spanning across the premise range but typically falling below 10,000 ft^2 (929 m^2). Very limited levels of new office development have been completed in West Berkshire in the last 20 years[61].

Rural Economy and Rural Employment Space

The rural areas of the West Berkshire also accommodate provision of employment space. This takes the form of purpose built, stand-alone business parks, industrial estates and converted rural premises/barns with change of use or within permitted development or prior approval. These sites accommodate a range of sectors and industries but generally B1 and light industrial uses. Demand for rural employment space is reported in the West Berkshire FEMA: EDNA to be limited, with continued steady growth of this type of premises considered inevitable to meet the needs of what is essentially a local market consisting of rural businesses which operate in the area. These premises can also play an important role in providing affordable workspace and retaining home based businesses within the local community. The agricultural sector in West Berkshire has the smallest number of workers by sector.

Future Trends: West Berkshire is an integral part of one of the most prosperous sub regions in Europe, the so called Thames Valley business wedge. Effective and proactive economic development will play a central role in enabling West Berkshire to rise to the financial challenges of the present day at the same time as equipping our community for future wellbeing and prosperity. Building on the 5 foundations to productivity in the UK Industrial Strategy 2017 and its Grand Challenges, the Local Plan will need to support the Berkshire Local Industrial Strategy in embracing technological innovations such as improved connectivity through investment in digital infrastructure, electrification of transport, that may transforming how we live and work. However, the relative prosperity disguises particular challenges that constrain economic sustainability within the District. The lack of adequate housing and its high cost is a barrier to recruitment and retention for employers. Economic potential can be restricted by skills and labour supply issues. Despite having one of the most successful labour markets in the UK, significant challenges are apparent in meeting the economy's need for skills and labour, both now, and in the future with developments in fields such as robotics, artificial intelligence, nanotechnology, the Internet of Things, and autonomous vehicles[62]. Local skills shortages particularly in Science, Technology, Engineering, Arts and Maths (STEAM) roles and pockets of relative deprivation and income inequality mean that local employment need and opportunity risk being unfulfilled. A lack of new land and/or modern space to accommodate new development constrains the provision of the right mix and quality of employment land to meet the needs of businesses.

Tourism

Tourism is significant for West Berkshire but not a major industry. A report: *The Economic Impact of Tourism* was prepared by Tourism South East Research Services on behalf of West Berkshire District Council in July 2007. The report details the following information on tourism in West Berkshire and its contribution to the local economy:

"Overall, an estimated 485,500 staying trips were spent in West Berkshire District in 2005, of which around 396,000 were made by domestic visitors (82%) and 89,700 by overseas visitors (18%). Staying trips result in an estimated 1.53 million bednights in the District. Domestic visitors account for 62% of these nights and overseas visitors accounted for 38%. Approximately 3.43 million tourism day trips were made to the District (lasting more than 3 hours and taken on an irregular basis) in 2005. Total expenditure by visitors to West Berkshire is estimated to have been in the region of £200 million in 2005.

With the addition of other expenditure such as the expenditure on goods and services by friends and relatives visitors were staying with, or visiting, total expenditure associated with overnights trips to West Berkshire in 2005 was approximately £212 million.[63]

[61] Western Berkshire FEMA: Economic Development Needs Assessment October 2016

[62] Thames Valley Berkshire 2018 Skills Priority Statement

[63] The Economic Impact of Tourism, West Berkshire, July 2007, Tourism South East Research Services.

Primary attractions within West Berkshire include the heritage and cultural attractions described within this section; visitors also come for the tranquillity and scenery in the surrounding countryside and quiet recreation such as walking, cycling and horse riding. Large swathes of the countryside of the district lies within the North Wessex Downs Area of Outstanding Natural Beauty *(AONB)* – an area of gently rolling, chalk landscape and picturesque villages.

Several national routes pass through the area including *The Ridgeway National Trail, the Thames Path* and parts of the *Sustrans* countrywide cycling network. The *Kennet and Avon Canal* runs through West Berkshire on its way from Bristol and Bath, through Hungerford and Newbury to Reading and the Thames beyond. This attracts boaters and other visitors along the length of the canal. The Canals and Rivers Trust estimate that around a million visits are made to the canal in a year.

The internationally significant *Newbury Racecourse* (home of the iconic Ladbrokes Trophy (formerly known as the Hennessy Gold Cup)) brings a very large number of visitors to the area; approximately 200,000 people attend race meetings each year.

Future trends: Data and information on the contribution of tourism towards the economy of West Berkshire is dated now although all the primary attractions of District are current and apparently well used. The Economic Development Strategy for West Berkshire 2013-2018 includes an objective for promoting West Berkshire including the development of tourism and leisure. One of the priorities of A Breath of Fresh Air, West Berkshire's Sustainable Communities Strategy, is to realise the tourist potential and increase the number of tourist visitors to West Berkshire. A long term strategy for the promotion and management of tourism, including the world class horseracing offering, is needed if this sector is to advance in a measureable way.

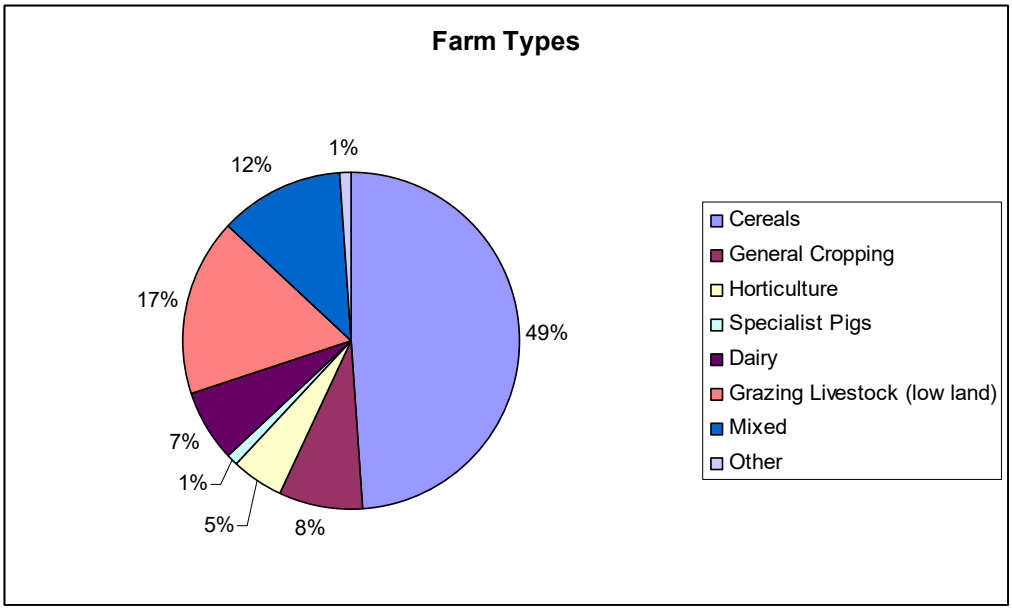
Agriculture

DEFRA's agricultural census for June 2013 shows that there were 49,096 ha of total farmed area in West Berkshire managed by 348 agricultural holdings with 967 people employed directly. Since 2013 people directly employed has dropped to 825[64] or 1 % of the total working age population although conversely farmland represents the largest land use in the district at 79% and is essential for the conservation of the natural environment.

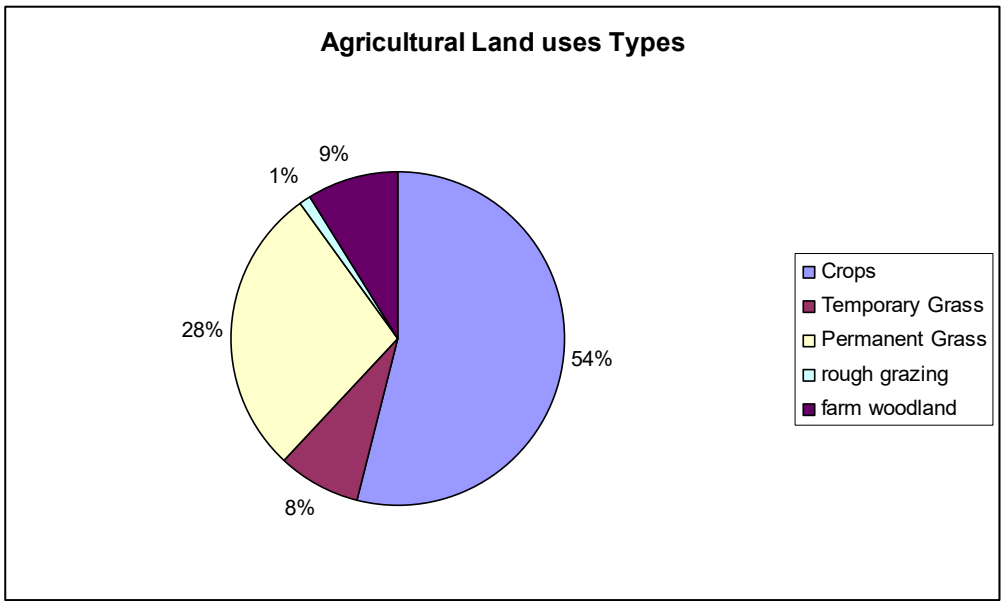
Over half of the agricultural area was under arable cropping (54%), and around one third was grazed. DEFRA assigns each of the registered agricultural holdings to a main farm type on the basis of their principal outputs. This shows that nearly 50% of farms were devoted to cereal crops such as wheat, 29% were grazed livestock farms (i.e. beef and sheep). The charts below show the different agricultural land use and farm types in West Berkshire.

[64]NOMIS, September 2017

Figures 20 and 21 - Farm types and Agricultural land use types in West Berkshire



Source: June 2013 Agricultural and Horticultural Survey – England



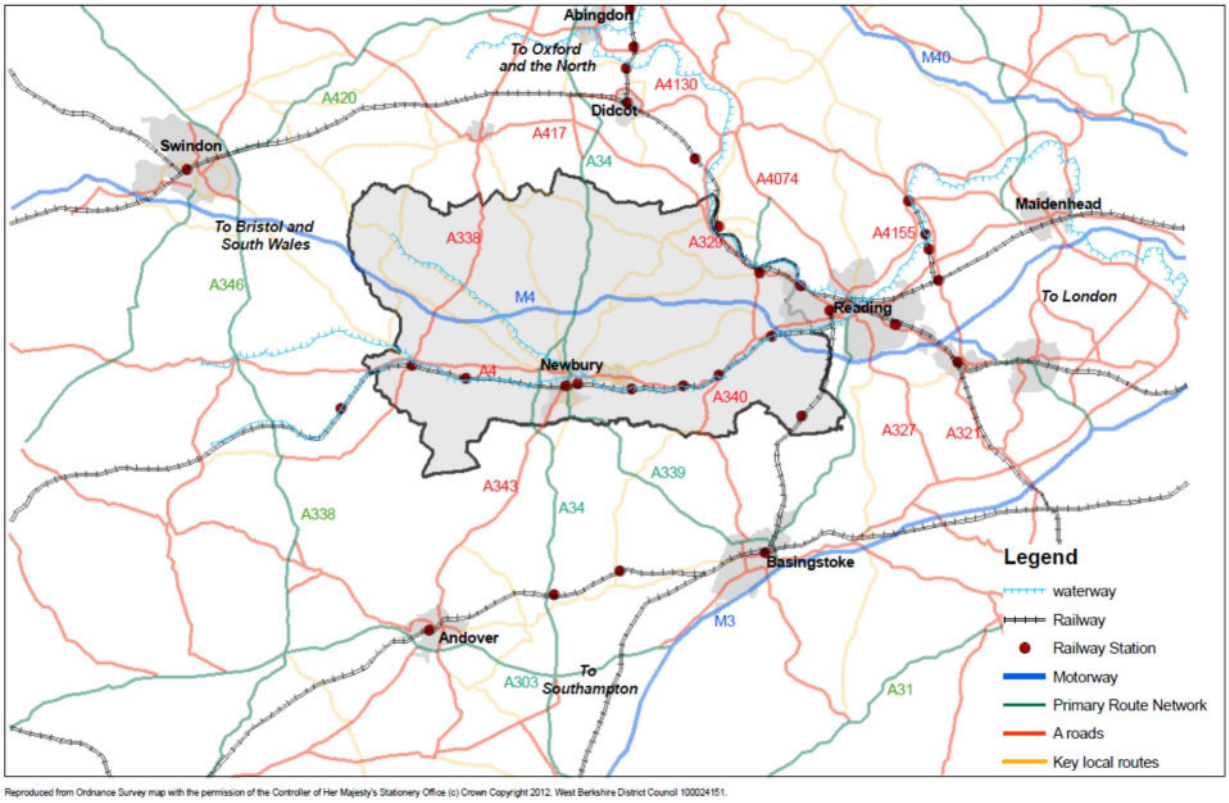
Future Trends: Although agriculture makes up a small part of the economy and employment in West Berkshire, its activities are central to the environmental qualities of a District where 74% is AONB. The downward trend in the number of farms and those that work in agriculture in the District continues but perhaps more than any other sector the impacts of leaving the European Union and its Common Agricultural Policy and Environmental Programmes could have a profound effect on the future of land use and management in West Berkshire. Much will depend on the negotiation of future trading arrangements and the transposition of EU farming and environmental protection and support into domestic legislation and programmes. The Government produced a *Future of Farming Review* in 2013 which identified key challenges facing people entering and staying in farming. Amongst the need for more educational opportunities it highlighted the need for supportive planning policies towards rural housing. DEFRA identified a vision for the future of British agriculture in DEFRA's

Farming for the Future Programme[65]. Key themes arising for this are the need to cut carbon emissions resulting from farming activities, increasing the efficiency of the management of nutrients on farms and reducing pollution. There are further plans to increase the skills to make UK farming more competitive, and achieve higher standards of animal health[66]. DEFRA is due to publish a long awaited 25 year action plan in 2017.

Transport

West Berkshire's position in central southern England and its good links to the transport network have been key factors in West Berkshire's success at attracting businesses to the area. The district lies at the crossroads of the M4 and A34 strategic roads providing good connectivity in all directions, and with good rail access with direct trains to Reading and London and in the opposite direction to the South West. Heathrow Airport is highly accessible.

Figure 23 - West Berkshire's Transport Links



Source: WBC – Transport Policy Team

Although these links to and from the area are good, the largely rural nature of West Berkshire makes accessibility within the district more of an issue. The 2011 census shows that for West Berkshire, 71% of people travelled to work by car or motorcycle including passengers. This is higher than other Berkshire Unitary authorities, with the exception of Reading Borough where figures are substantially lower. A relatively lower proportion of people use public transport to get to work, reflecting the geographically dispersed nature of the population and the marginally longer distances travelled. A relatively similar proportion of people either work from home, or walk to work. Noticeable is the small proportion of people who cycle to work, although this is reflected nationally also.

[65] Farming for the Future Programme, http://www.defra.gov.uk/farm/policy/future/index.htm
[66] Information taken from Defra Departmental Report 2008, Defra, May 2008. www.defra.gov.uk

Table 6. Modes of travel to work

	West Berkshire (%)	South East (%)	England and Wales (%)
Work mainly from home	7.6	6.6	5.4
Public Transport	8.9	14.3	26
Car / Motorcycle	70.9	66.5	63.4
Bicycle	2.6	3	2.9
Walk	9.4	10.9	10.7

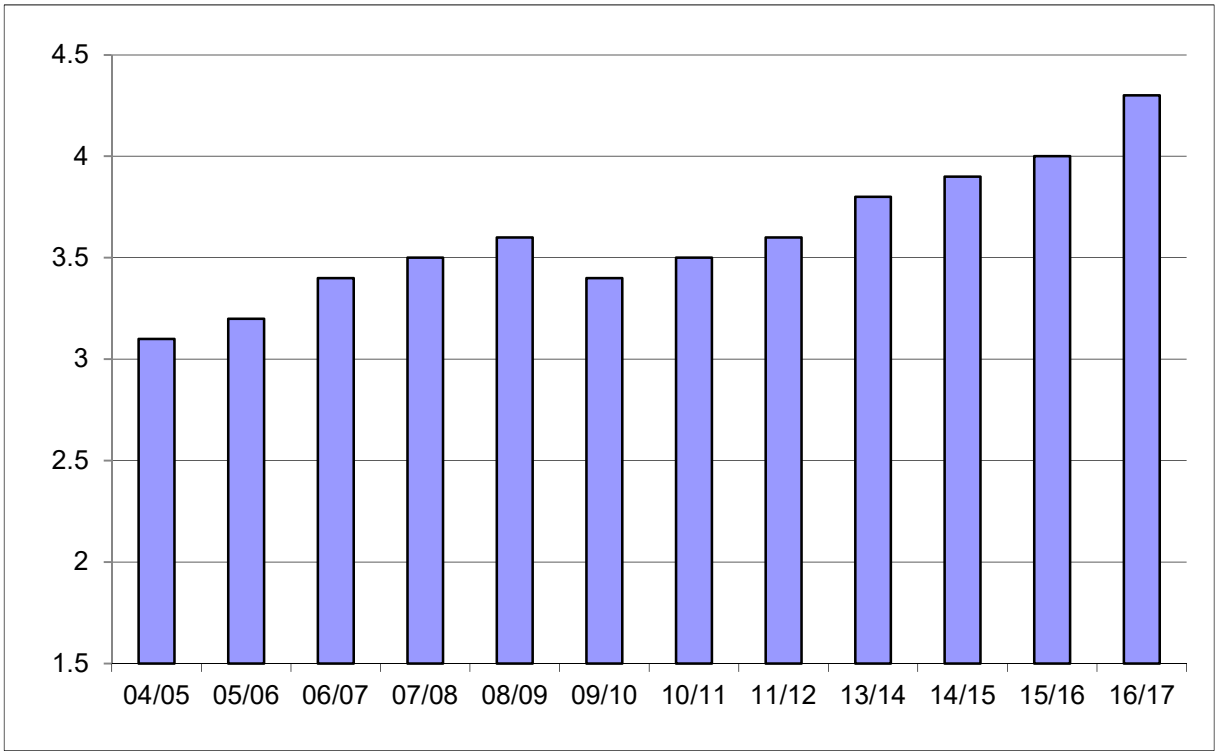
Source: Census 2011

In a 2010 research paper by Oxford Consultants for Social Inclusion (OCSI), one statistic summarises the hidden picture of the district. Of all households within the West Berkshire, 72.9% live more than 10km/6miles from a principal job centre, considerably higher than the average of 50.4% in England. A large proportion of the residents live in rural towns, villages and hamlets and, through due to the difficulty in providing viable sustainable public transport options to these areas, are dependent on the motor car for access to work place, services and facilities. Data from the DfT shows that West Berkshire has 150,089 licensed vehicles in 2014, of which over 80% are cars (120,375) (DfT, Table VEH0105). When calculated by the most recent household averages in the district, this equates to 1.93 cars per household (1.4 nationally), illustrating an essential need for a vehicle to conduct day to day activities. The rural nature, dispersed population and affluence of West Berkshire is problematic for the provision of a frequent and financially viable bus service as people tend to sway towards the convenience of the car in these locations.

According to the Movement Framework for Newbury (Atkins, 2005), at present, demand exceeds available capacity on the highway network, particularly at peak times, resulting in an average delay per vehicle of between 35% and 43% of an average journey time on key routes within Newbury in the morning peak being spent in delays or queuing.

Newbury, Thatcham and the Reading corridor have a reasonable public transport service, with up to 5 buses and 3 trains per hour. Reading - just to the east of the district - is a major confluence on the strategic rail network, providing direct and efficient access to key urban centres across the country. Table 5 below is based on the annual number of recorded entries and exits made at each railway station of the 9 stations in West Berkshire, clearly demonstrating the growth in rail travel that has occurred over the last 12 years or so.

Table 5. West Berkshire Railway Station past usage (millions/year)



Source: Office of Road and Rail

In addition to rail travel, bus provision forms a key part of the public transport offer within the district. Bus services[67] provide links across West Berkshire, in particular to and from Newbury and to the east of the district and on towards Reading. Patronage in West Berkshire in 2014/15 was above 2 million on bus services, with the vast majority taking place in the east of the district. Services in the east – Calcot, Purley, Tilehurst and on to Reading are run commercially, offering high frequency routes on a daily basis. Services outside of this area tend to be subsidised, with a few exceptions such as "the Link" service between Newbury and Basingstoke. Subsidised services in particular form a key link between urban and employment areas to the many rural settlements across West Berkshire, However under-utilisation by patrons and reductions in funding are creating challenges for the Council to maintain these services.

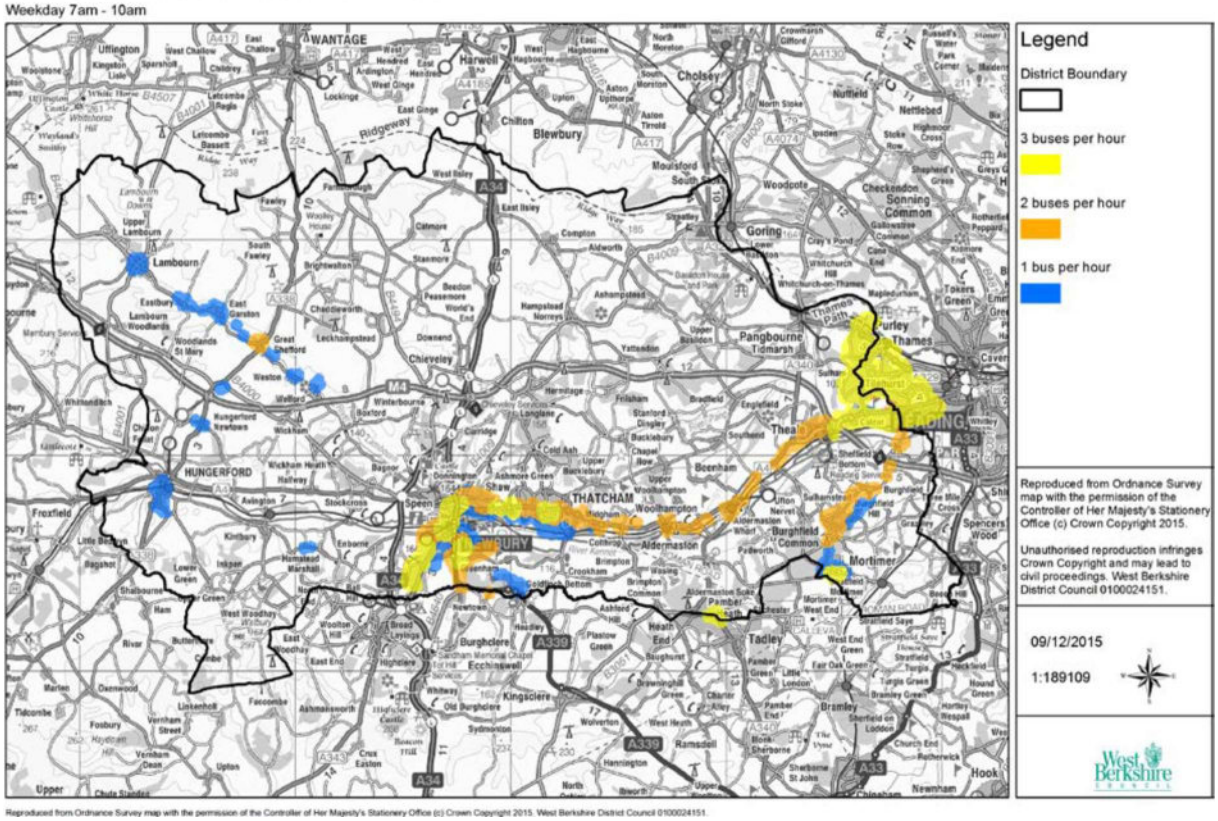
The following map uses bus timetable data from September 2015 to show where communities are able to access frequent bus services. The map shows where a resident could access a minimum of one bus service per hour during a weekday morning (shown in blue), without having to walk more than 400metres from their homes. Approximately 64% of the districts population, and 65% of households are within the 1 hour frequency, but many residents in rural parts of the district have limited options for travel. (Source – TNDS, Sept 2015, ONS 2011, Table KS101EW – Usual Resident Population)

Figure 24 – West Berkshire: Access to Bus Services within 400m

[67] West Berkshire District Needs Assessment 2016

Access to Bus Services within 400m

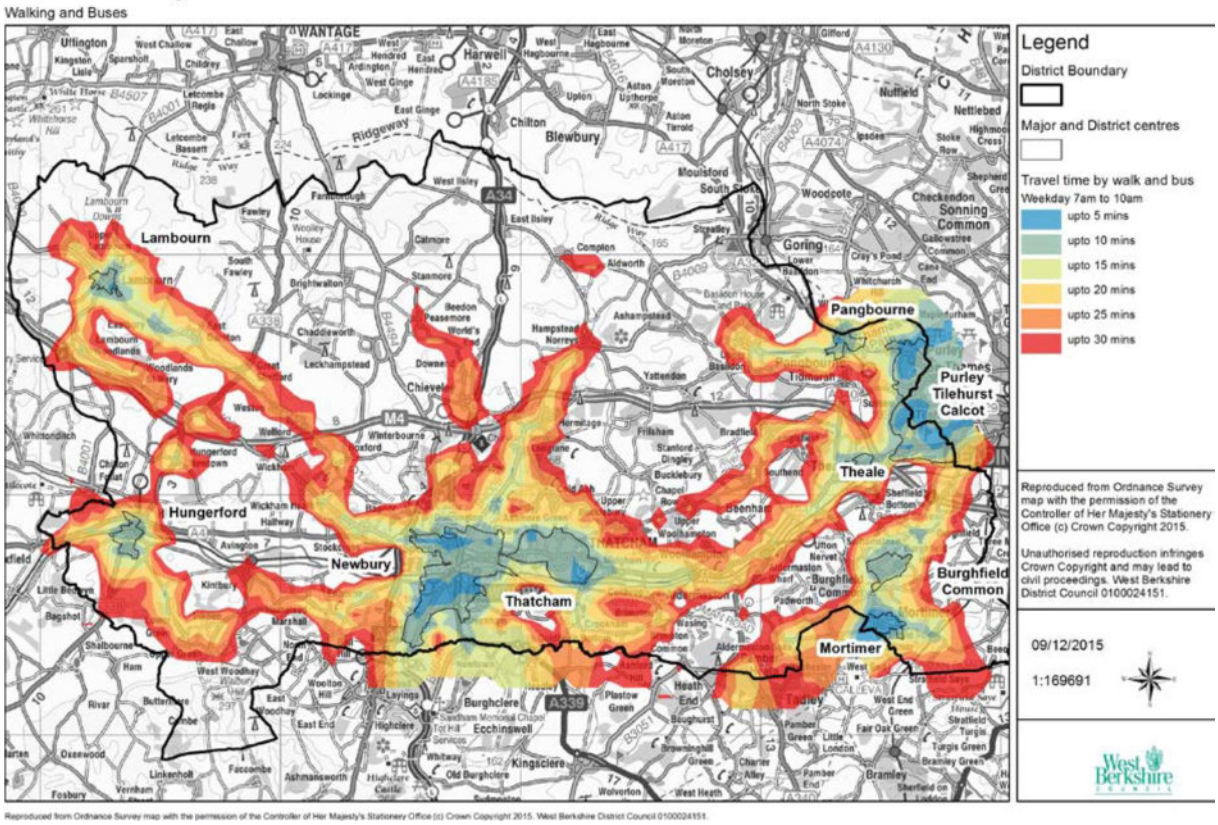
Weekday 7am - 10am



Reproduced from Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office (c) Crown Copyright 2015. West Berkshire District Council 0100024151.

When considering access to key destinations by bus, the following map shows the location of residents who are able to access key town centres within a thirty minute bus ride. The accessibility map shows the location of residents who are able to access a bus service or walk to a major or district centre in West Berkshire within 30 minutes. The map is developed using bus services from September 2015 during a weekday between 7am and 10am. Areas shaded red are accessible within 30 minutes to one of the centres by either walking or by bus. The bluer the shading becomes, the shorter the journey time. Major centres are Newbury, Thatcham and the east of the district comprised of Calcot, Purley and Tilehurst. District centres are Hungerford, Lambourn, Burghfield Common, Mortimer, Pangbourne and Theale. (Source – TNDS, Sept 2015)

Figure 25 – West Berkshire: Access to Major and District Centres



It is important that accurate and easily-understood information is available to existing and potential customers, to encourage use of public transport and help them plan journeys in advance. There is a telephone information service (Traveline) for bus and route times in line with the Local Transport Plan Policy on Information, through partnership working with Reading Transport Limited, live local bus information is also available via Traveline's NextBuses mobile internet and text service, and via Traveline South & East's and individual transport operators' apps (e.g. the free 'Kennections' app). Service status and disruption updates are also now available via social media, including via Twitter feeds integrated into apps. Reading Transport are currently working with the Council to introduce audio-visual information on board the Kennections local bus fleet.

Accidents: West Berkshire's overall casualty numbers in 2016 have increased slightly from 2015, but are considerably lower than the baseline period (average over 2006-2010)[68]. There has been an increase in child casualties, with numbers only slightly lower than the baseline period. Collisions on Highway England roads and non-resident casualties have both increased slightly in 2016, along with young driver collision involvement levels but are all below their respective baseline periods. 'All' casualty numbers have steadily decreased over the last decade. There were 417 casualties on West Berkshire's roads in 2016, up 3% from 2015, but a 25% reduction from the baseline period. Killed or seriously injured (KSI) casualty numbers in West Berkshire had slightly reduced over the past few years, however in 2016 there was an increase to 72 KSI casualties which is just above the baseline period.

Active travel to work and school: Active travel for regular journeys to work and school are encouraged through 'Travel Plans' that are implemented by workplaces and school communities. Travel Plans work by offering incentives to use alternative modes of travel to work than the car. All schools in West Berkshire have a school travel plan, and many schools actively promote walking and cycling through

[68] West Berkshire Road Casualties Update: January to December 2016 based on DfT, 2015, Traffic by local authority (TRA89)

these plans. There has been an overall growth trend in walking[69] to school across the district since 2001 (36% of pupils) to 2010 (48%), tailing off by 2014 (45%). The number of monitored[70] cyclists has fluctuated but declined 13% since a peak of 3200 in 2011/12.

It is important that people find it easy to move about their local environments, this extends to accessibility problems for those who are disabled or the elderly population. Busy roads, crossing times at traffic lights and steep hills may pose particular barriers to movement locally. The particular design features of streets can have an effect on movement and health. Having many street intersections increases physical activity, while long, wide roadways are likely to reduce active travel. Traffic calming measures (one-way streets, roundabouts, road narrowings, chicanes, road humps, reduction in speed limits) reduce accidents, and benches and trees on streets encourage people to spend time outside.[71]

Future trends: With traffic flows forecast to continue to increase the challenge is to work towards slowing down the rate of increase in traffic by encouraging more sustainable modes of travelling than the private motor vehicle and alternatives to travelling such as working from home, tele-conferences, etc. which will also require improved Information Technology. This must be seen in conjunction with siting future development in the most sustainable locations. The West Berkshire Local Transport Plan aims to implement a number of policies relating to road, rail and public transport, in particular, increased usage of public transport and a reduction in the use of the car. There are also objectives in relation to encouraging walking and cycling.

The general picture of access to transport shows that across the district there is a perception that residents of West Berkshire have good access to services and facilities such as employment and health services. However, a greater concern is how this data hides a story of transport poverty for small groups of people across the district. Residents within the urban areas of Newbury and Thatcham are potentially less affected, as opportunities will exist to use safe walking and cycling routes to access key services, such as shopping, doctors, food and schools. However within rural areas, there is a greater concern for those who are unable to afford a car, or are no longer able to drive due to medical conditions or age. The lack of frequent public services outside of Newbury and Thatcham means activities have to be planned in advance, and need to coincide with infrequent bus services.

Growth in rail passenger demand in recent years has been one of the successes of UK transport policy. This growth is forecast to continue, with the rail industry's view that by 2035 the national rail network will be carrying twice as many passengers as in 2011. In West Berkshire, Table 7 below illustrates the expected increase.

[69] WBC Annual School Travel Survey

[70] West Berkshire Cycle Forum – Cycle Monitoring

[71] The Marmot Review: implications for Spatial Planning. The Marmot Review Team (2011).

Table 7. West Berkshire Railway Station usage forecast

Station usage/ forecast							
Station Name	2015/16	2019/20	2023/24	2026/27	2033/34	2043/44	Growth from 2015/16 to 2043/44
Hungerford	371,804	410,587	448,595	468,002	516,613	594,945	**60%**
Kintbury	93,092	102,861	112,440	117,333	129,594	149,365	**60%**
Newbury	1,826,560	1,998,235	2,164,980	2,249,561	2,459,991	2,795,202	**53%**
Newbury Racecourse	97,254	104,282	110,978	114,328	122,541	135,309	**39%**
Thatcham	578,410	633,984	688,062	715,529	783,959	893,223	**54%**
Midgham	34,772	37,987	41,106	42,687	46,615	52,862	**52%**
Theale	487,678	538,162	587,605	612,837	676,007	777,709	**59%**
Pangbourne	444,648	491,475	537,697	562,085	623,379	722,715	**63%**
Mortimer	186,084	196,486	206,827	213,442	229,710	255,124	**37%**
Note 1. 2015/16 data are taken from ORR estimate of station usage Note 2. The estimates of station usage are based on the financial year. Each year runs from 1 April to 31 March							

Source: Office of Rail and Road analysis that informed the London and South East Market Study, Long Distance Market Study, and Western Route Study (2013 and 2015)

To help meet this demand, the Department for Transport has announced a series of measures to modernise the Great Western rail network, including proposals to electrify parts of the route and new trains, which will provide additional seating capacity. From December 2016, rail passengers travelling between London, Slough, Reading, Newbury, Didcot, Oxford, and on the Mainline west to Bristol and South Wales will benefit from new electric trains. Further details regarding how the Great Western rail network will be improved can be found on the Network Rail website.

Active travel opportunities exist within the district, but are likely to be strongest in urban areas where infrastructure is at its strongest, and investment most likely to help create a coherent network. Encouraging walking and cycling supports more than just transport provision, linking to educational attainment in young children as well as reducing obesity and other health conditions, as well as seeking improvements to air quality through reduced congestion. The regular monitoring of cycling across the district shows year on year numbers are decreasing, despite a general perception of growth in the popularity and participation in cycling, either for leisure or utility purposes. The Council continues to invest in cycling infrastructure, creating more routes which provide space away from cars.