

# Winchester Local Development Framework Sustainability Appraisal (SA) & Strategic Environmental Assessment (SEA)

**BASELINE**

July 2007

prepared by



## Appendix B

### Winchester SEA/SA Baseline Information

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#### B.1 INTRODUCTION

Baseline data has been presented in two formats: in summary text form and a more detailed baseline data table. All data will be updated before the plan appraisal takes place. Sources are shown in the list at the end of the section and refer to the baseline documents used for the LDF SEA/SA.

- B.1.1 Population
- B.1.2 Human Health
- B.1.3 Employment
- B.1.4 Social Exclusion
- B.1.5 Housing
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- B.1.7 Landscape & Townscape
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- B.1.9 Biodiversity & Conservation
- B.1.10 Water Resources
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- B.1.12 Climatic Factors
- B.1.13 Soil & Minerals
- B.1.14 Waste

## B.1.1 POPULATION

### Summary

In 2001 Winchester had a population of 107,222, an increase of 11.2% from 1991. In comparison Hampshire’s population grew by 7% during the same period. The area is predominantly rural with 65% (69,694) of the population living in the rural area and the remaining 35% (37,528) living within the City area. By 2026 the predicted total population is expected to grow to about 132,000, an increase of 19% on 2001. Winchester is currently Hampshire’s least densely populated district, 1.62 persons/hectare and can boast to be amongst the top 20 most affluent districts in England. However there are major contrasts in that the ward of St. John and All Saints is 4237<sup>th</sup> out of 8414 in the most deprived wards in the UK and there is some evidence of rural deprivation in outlying areas of the district. The break down of the population shows the mean age to be 40, low numbers of school children and with lower mortality rates overall, it is an ageing population. White Christians are the dominant ethnic and religious group although the population has become more culturally diverse in recent years.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Population</b>						
Total number of people 2001 census	1	107,222	<b>Hampshire (2007):</b> 1,650,000 <b>South East:</b> 8,000,645	<b>England:</b> 49,138,831	Between 1991 and 2001 Winchesters population grew from 96,386 to 107,222, an increase of 11.2%. 35% of the population live within Winchester city and the other 65% in the rural area beyond. Winchester’s population has increased through a net gain in migration, the 2001 census showed 7.3% of the population as internal migrants from within	The projected population increase will require an enhanced provision of services, and careful integration with existing communities. The needs of an aging population will have to be catered for and attention should be given to appropriate housing and access to facilities. The increase in population will have impacts on all the sections covered in this baseline, both

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
					the UK. This may be linked directly to the city's proximity to London, attractive as a major commuting area.	environmental and social.
<b>Mean Age of Population in the Area (2001)</b>	1	40	<b>South East:</b> 39.08	<b>England:</b> 38.60	Numbers of school aged children have declined since 1991 and the higher than average mean age highlighting an aging population, in particular those aged over 75.	The decline in school age children may be a product of the area's house prices, but provision of affordable housing would enable young people and young families to remain in the area.
<b>Density</b> (number of people per hectare) (2001 census)	1	1.62	<b>South East:</b> 4.20	<b>England:</b> 3.77	Winchester is the least densely populated district in Hampshire and sits well below the regional and national average.	
<b>Ethnic groups</b> (highest 3 percentiles)	1	White: 97.84% Asian or Asian British: 0.69% Mixed: 0.66%	<b>South East</b> White: 95.10% Asian or Asian British: 2.33% Mixed: 1.07%	<b>England</b> White: 90.92% Asian or Asian British: 4.58% Black or Black British: 2.30% Mixed: 1.31%	Increases over the last decade show the population becoming more culturally diverse but white Christians remain the largest single group.	
<b>Religion (stated religion 2001) (%) (top three percentiles excluding religion not stated)</b>	1	Christian: 76.16	Christian: 72.78	Christian: 71.74		
		No Religion: 15.91	No Religion: 16.50	No Religion: 14.59		
		Muslim: 0.36	Muslim: 1.36	Muslim: 3.10		

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Country of Birth (2001) (%)</b> (highest 3 percentiles) (nb other countries listed are Scotland, Wales, Northern Ireland and Rep. of Ireland)	1		<b>South East</b>	<b>England</b>		
		England: 88.50%	England: 88.01%	England: 87.44%		
		Elsewhere: 4.73%	Elsewhere: 5.55%	Elsewhere: 6.91%		
		Scotland: 2.02%	Scotland: 1.91%	Scotland: 1.62%		

## B.1.2 HUMAN HEALTH

### Summary

Winchester's general health is noticeably better than national and regional averages as highlighted by the low Standardised Mortality Rate (SMR). In line with this there are fewer households with one or more persons with a limiting long term illness.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Human Health</b>						
Households with one or more person with a limiting long term illness (%) 2001	1	27.27	South East: 29.36	England: 33.55		
General health (persons %)	1	Winchester:	South East:	England:	The data shows 74.61 (80,0000) of the population to be in good health, higher than the national or regional average.	With predicted rising population numbers, the Local Authority need to ensure the appropriate levels of health care and leisure facilities are provided to maintain the current good state of health experienced by residents.
		Good Fairly Good Not Good	74.61 19.48 5.91	71.50 21.38 7.12		
Standardised Mortality Ratios (SMRs) (UK=100)		83	Hampshire: 92 South East: 92		20% lower than national levels and significantly below regional average.	
Life expectancy		Data Gap	England (at birth): Males – 76.9 Females – 81.2		Life expectancy has reached its highest level at birth and amongst older adults resulting in a growing and ageing	The ageing population will need appropriate facilities in terms of demands on health care and the provision of

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
				population.	suitable housing, including sheltered housing schemes and residential and nursing care homes.

## B.1.3 EMPLOYMENT

### Summary

Winchester has a buoyant economy based on the service sector and experiences higher than average fulltime employment (41.55%) and significantly lower than average (1.61%) economically active unemployment levels. There is an educated and skilled workforce working in professional roles which amount to over 30% of the population. Winchester is also maintaining employment in agriculture at higher levels than the rest of the country.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Employment</b>						
<b>Percentage Economically Active -Employed %</b> (2001 as percentage of total population aged 16-74)	1	Full time: 41.55	<b>South East:</b> 43.22	<b>England:</b> 40.81	Full time employment levels are above the national averages but perform slightly less well regionally. The part time rate of employment may be a reflection of the service based economy.	There is good economic base on which to build.
		Part Time: 12.22	12.20	11.81		
<b>Percentage Economically Active - Unemployed %</b> (2001 as percentage of total population aged 16-74)	1	1.61	2.31	3.35	Unemployment has been and is consistently below regional and national average.	As above

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Industry of employment</b>		Winchester	South East	England		
<b>All persons</b>		100% (53,306)	100% (3,888,756)	100% (22,441,498)		
<b>Agriculture/ Forestry (%)</b>		2.9	1.4	1.5	Winchester is maintaining employment in agriculture at higher levels than the rest of the country.	There should be continued support for the rural economy to avoid the continuing downturn experienced in other parts of the country.
<b>Fishing (%)</b>		0.1	0.02	0.02		
<b>Mining (%)</b>		0.1	0.2	0.2		
<b>Manufacturing (%)</b>		9.5	12.1	14.8	Low level of employment in manufacturing.	
<b>Electricity/Gas/Water Supply (%)</b>		0.5	0.7	0.7		
<b>Construction (%)</b>		6.3	7.1	6.7		Winchester's housing requirement amounts to 10,439 between 2006 and 2026 which could lead to an increase in those employed in construction.
<b>Wholesale/ Retail Trade (%)</b>		13.6	16.3	11.6	The retail sector is above the national average but lags behind the region. As such a large part of the City Council is rural this is to be expected.	
<b>Hotels/ Restaurant (%)</b>		4.7	4.3	4.7		
<b>Transport/ Communications (%)</b>		5.4	8.1	7.1		

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
Financial (%)		3.7	5.1	5.8		
Real Estate (%)		17.9	15.6	13.2	A significantly higher rate of those employed in real estate compared to nationally.	Likely to maintain this level due to new housing requirement and buoyant local economy.
Public Admin (%)		9	6	6.6		
Education (%)		9.8	7.8	8.7		
Health & Social Work (%)		10.8	9	10.6		
Other Community/ Social Activity (%)		5.2	4.5	5		
Self Employed (%)		0.2	0.2	0.1		
Extra Territorial Organisations (%)		0.1	0.03	0.05		
Other (%)		0.2	0.5	2.6		
Net Commuting (persons)	34	<b>In-Commuting Winchester (approx)</b> 13,000	<b>Out-Commuting Winchester (approx)</b> 4,500		50% of all in-commuting to Winchester is from the Solent area.	If the commuting pattern stays the same, efforts should be made to encourage use of sustainable modes of transport. This could include efficient park and ride schemes and encouraging employers to adopt green transport plans with car sharing, provision of showers, cycle storage etc.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Socio-Economic Classifications 2001 (% Persons aged 16-74)</b>	1		<b>South East</b>	<b>England</b>		
Large employers and higher managerial occupations		5.90	4.53	3.50		
Higher professional occupations		8.89	6.26	5.11	Significantly high % of professional occupations.	The economy should build on the high skilled population present.
Lower managerial and professional occupations		22.50	21.18	18.73	Significantly high % of professional occupations.	The economy should build on the high skilled population present.
Semi-routine occupations		8.50	10.63	11.65		
Routine occupations		5.76	7.35	9.02		
Never Worked		1.02	1.58	2.72	Significantly lower % of residents who have never worked.	
Full-time students		9.00	6.72	7.03	Indicates a well educated younger population.	Attempts should be made to retain this sector of the population and could be helped through the provision of low cost market housing and building on the wide range of employment opportunities.
<b>Gross Value Added (GVA) per head.</b>		<b>Hampshire:</b> 14,924	<b>South East:</b> 16,756		Steady increase since 2001	
<b>Employment land allocated in adopted local plan</b>		<b>Site location (ha.)</b> West of Waterlooville	<b>Area of site</b> 30 ha			Allocated land is available for businesses that wish to expand or relocate to the area.

Indicator	Data Source	Current Data	Comparators and targets			Trend	Issues/Constraints/ Opportunities
		Hillson's Road, Curdridge Solent 1, Whiteley Solent 2, Whiteley Little Park Farm, Whiteley	4.1 9.8 8.7 1.3				
<b>Mixed use sites allocated in adopted local plan</b>		<b>Site location</b> Abbey Mill, Bishop's Waltham Freeman's Yard, Cheriton Former Station Yard and Coach Business, Sutton Scotney	<b>Area of site (ha.)</b> 1.9 1.1 1.6				The allocation of mixed sites facilitates sustainable development by producing workplaces and homes in the same location.
<b>Total Employment Related to Tourism Spending 2004</b>	44		2000	2002	2004		
	45	Direct	3,037	3,095	2,762		
		Indirect & Induced	926	591	944		
		<b>Total</b>	<b>3,964</b>	<b>3,685</b>	<b>3,757</b>		

## B.1.4 SOCIAL EXCLUSION

### Summary

There are a significantly lower number of households with no adults in employment; 1.89% compared to a national average of 4.83%. There is also a decline in the proportion of households with young children. However Winchester has a well educated population with 30.16% being qualified to professional status compared to 19.9% nationally. Generally the area scores well in the Index of Multiple Deprivation with scores consistently in the 300s (where 1 is the most deprived and 354 the least deprived).

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Social Exclusion</b>						
Households with no adults in employment: with dependent children (%) 2001	1	1.89%	South East: 3.29%	England: 4.83%	Significantly lower than regional or national averages.	
Households with dependent children (%) 2001	1	27.42%	29.18%	29.45%	Proportion of households with young families has decreased as has the proportion with large families.	The decline in households with young families may be a product of the area's house prices and provision of affordable housing would enable young people and young families to remain in the area. There are currently over 2,000 on the housing needs register and average house prices of £300,000.
Average household size (persons)	1	2.35	2.38	2.36	The proportion of single person households has increased substantially as has the national trend.	This presents specific accommodation needs for both the young and elderly.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
Households with central heating and sole use of bath / shower and toilet (%)	1	96.28	93.56	93.56		
Households without central heating; with sole use of bath / shower and toilet (%)	1	3.28	5.96	8.37		
People aged 16-74 with:	1	<b>Winchester</b>	<b>South East</b>	<b>England</b>		
No qualifications (%) 2001		18.76	23.92	28.85	Significantly below the regional and national averages.	Indicates a high skilled population on which to build a modern local economy.
Highest qualification attained level 1 (Level 1 qualifications cover: 1+'o' level passes; 1+CSE/GCSE any grades; NVQ level 1; or foundation level GNVQ)		13.25	17.13	16.63		
Highest qualification attained level 4 / 5 (Level 4/5 Qualifications Cover: First Degree; Higher Degree; NVQ Levels 4 and 5; HNC; HND;		30.16	21.75	19.90		Indicates a high skilled population on which to build a modern local economy.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
Qualified Teacher Status; Qualified Medical Doctor; Qualified Dentist; Qualified Nurse; Midwife; or Health Visitor)						
<b>IMD Extent – (proportion of a district’s population living in the most deprived Super Output Areas (Sosa) of the country)</b>		0.00				Indicative of the general wealth of the area.
<b>IMD Extent Rank – (ranking of IMD extent, on national scale. A rank of 1 is the most deprived, and 354 is the least deprived)</b>		298				Indicates a low level of deprivation which may be concentrated in specific areas where action could be focussed.
<b>IMD Income Scale – (the number of people who are income deprived)</b>		5,299				
<b>IMD Income Scale Rank – ( see explanation of ranking above)</b>		308				This indicates a well paid local economy.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
IMD Employment Scale - (number of people who are employment deprived)		2,443.75			
IMD Employment Scale Rank		309			Reflects the high level of employment in the area.

## B.1.5 HOUSING

### Summary

Average house prices are significantly higher in Winchester when compared with the South East. Between 2006 and 2026 10,439 dwellings are to be built in the Winchester area to meet the predicted housing need. The Council has a policy that a percentage of these will be affordable housing for rent and/or shared ownership to meet the housing needs of those whose needs are not met by the market.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Housing</b>						
<b>All households: with residents</b>	5		South East	England	The affordable housing expected to be provided as part of the general housing requirement should lead to an increase in properties rented from housing associations and shared equity ownership.	With the projected housing requirement for the area and national policy on the provision of affordable housing there is an opportunity achieve significant levels of affordable housing for rent/shared equity which will in some part address the issue of housing costs for those unable to purchase homes in the private market.
		43132	3,287,489	20,451,427		
<b>Owner occupied owns outright (%)</b>		33.7	31.28	29.19		
<b>Owner occupied own mortgage /loan (%)</b>		37.8	41.90	38.88		
<b>Owner occupied shared ownership (%)</b>		0.3	0.70	0.65		
<b>Rented from council (%)</b>		11.7	7.35	13.21		
<b>Rented from housing association (%)</b>	4.3	6.61	6.05			

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
Rented from private landlord/ letting agency (%)		8.6	8.77	8.80		
Rented other (%)		2.7	3.31	3.22		
<b>Housing Allocations</b> Net additional dwellings 2006 -2026		Winchester provision for annual average of 522 dwellings between 2006 and 2026, totalling 10,439.	South East provision for an annual average of 28,900 net additional dwellings between 2006 and 2026.			
<b>Provision of affordable housing</b>						The Council is already addressing this issue through a "saved policy" on the provision of affordable housing from the adopted local plan and the preparation of SPD to expand on, and clarify, the policy.
<b>Number of People per Hectare</b>	5	1.62	East Hampshire 2001: 2.12 England and Wales 2001: 3.4			
<b>Average Household Size</b>		2.35	East Hampshire 2001: 2.44 England and Wales 2001: 2.36			

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Average House Price: 2006</b>	18	<p><b>Winchester</b> Average Cost: £330,452</p> <p>Detached: £480,999 Semi-detached: £284,430 Terraced: £265,405 Flat: £189,311</p> <p>Change in last quarter: 3.3% Change in last year: 8.7%</p>	<p><b>South East</b> Average cost: £233,338</p> <p>Detached: £375,532 Semi-detached: £216,821 Terraced: £179,464 Flat: £154,161</p>		The high house prices in Winchester are probably affecting the balance of population as many young people are unable to purchase a property in the area. As above, the Council is addressing the issue of the provision of affordable housing.
<b>Housing Need</b>	42	The total affordable housing need annually is for 1,284 units. Re-lets of the existing social stock average 480 units and is the major means of addressing the scale of need identified. After allowing for this level of supply there will still be an annual affordable housing shortfall of 779 units which projected over the nine year period to 2011 is a total of 7,011 units.		Increasing house prices and the inability of many to enter the housing market indicates an increase in the numbers on housing needs registers.	With the projected housing requirement for the area and national policy on the provision of affordable housing there is an opportunity achieve significant levels of affordable housing for rent/ shared equity which will in some part address the issue of housing costs for those unable to purchase homes in the private market.
<b>Supported and Adapted Housing Needs</b>	42	14% of households in Winchester contain somebody with a special need, suggesting some 6,220 households.			The City Council is addressing this issue through their Draft SPD on affordable housing which

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
		<p>Around 25% of Housing Association rented homes were adapted for a disabled person compared to just 4% in the owner occupied (no mortgage) sector, principally older people.</p>			<p>requires new development to meet Lifetime Homes Standards.</p>

## B.1.6 TRANSPORT

### Summary

Between 1950 and 1995 car ownership in the UK increased from 2 million vehicles to 21.4 million and it is predicted to further increase by 20% by 2015. More ownership equals more use and traffic is predicted to increase in Hampshire by 2% on the motorways and 1% on local roads in the next 10 years. The Hampshire Transport Plan has identified local peak hour congestion in Winchester which will only be exacerbated, by an increase in car numbers from the level of development proposed by the South East Plan. Particularly noticeable in Winchester's more rural areas is the accessibility problems to local and sub regional facilities worsened by poor transport infrastructure.

The figures show fewer households with no or one cars compared to national and regional figures but those households with two, three or more are substantially higher in comparison. This is inline with the affluence of the population within the region and logically lends weight to the figures showing car and van travel as the most used mode of transport. The data concerned with distance travelled to work indicates high numbers travelling less than 2km, so within the city centre area or close to where the bulk of local businesses are located. As a commuter hub the figures show numbers of people travelling 10- 30km and 40-60kms fairly high indicative of the corresponding distance to Southampton and Portsmouth. 6.9% of the population travel 60km plus, relating to the distance to London (109km) and emphasising the importance of location in respect to travel.

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>Topic: Transport</b>						
All cars and vans in area	32	61,868	England and Wales: 23,936,250			
Households with no cars or vans % (2001)	1, 32	15.69	South East: 19.43	England: 26.84	There are substantially less households in Winchester with no cars or vans compared to the regional and national	
Households with one	1, 32	39.37	42.62	43.69		

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
<b>cars or vans % (2001)</b>					average. This is consistent with households with one car.	
<b>Households with two cars or vans % (2001)</b>	1, 32	34.54	29.56	23.56		
<b>Households with three cars or vans % (2001)</b>	1, 32	7.74	6.29	4.52	The data from households with two cars, shows Winchester having 46.6% more than the national average highlighting the affluence of the area. This is emphasised by households with 3 cars or more also being 71% above the national and 23% above the regional average.	The very high levels of car ownership in Winchester presents a challenge in changing modes of transport. This has implications for climate change and air quality.
<b>Mode of travel to work (%)</b>	1, 31	Winchester	South East	England	<p><b>2000:</b> Biennial surveys of bus passengers on the radial routes round Winchester show an overall increase of 22% since 1993. Pedestrian counts show an increase of 2.9% since 1993.</p> <p>Rail counts show an increase in the number of passengers boarding from 3,170 in 1997 to 3,622 in 2000, a 14% rise.</p>	<p>Although there has been an increase in train and bus use, Winchester still falls behind the national average. Winchester experiences a high level of in commuting and also some out commuting, but 30% of people work at home or travel less than 2km.</p> <p>There are opportunities to change the current travel pattern through the provision of safe and convenient walking and cycling routes within the town and measures to encourage public transport use</p>
Train		4.09	5.63	4.23		
Bus		3.23	4.35	7.51		
Motorbike		0.99	1.12	1.11		
<b>Car/Van</b>		58.78	59.18	54.94		
Passenger		4.92	5.65	6.11		
Taxi		0.21	0.41	0.52		
Bike		1.90	3.07	2.83		
Foot	13.11	9.91	9.99			

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
						such as park and ride.
<b>Distance travelled to work</b>	32	All persons Works at home Less than 2km 2km – 5km 5km – 10km 10km – 20km 20km – 30km 30km – 40km 40km – 60km 60km +	<b>Winchester (persons)</b> 53,306 6,837 11,253 6,253 6,379 9,695 3,524 1,579 1,679 3,719	<b>Winchester (%)</b> 100 11.9 21.1 11.7 11.9 18.2 6.6 2.9 3.1 6.9	Less than 2km has the highest percentage of people traveling this distance to work. This shows that they live close to work and possibly within close proximity to the city centre.  Southampton is 20km from Winchester and could be a factor in the percentage of people traveling 10-20km and 20-30km. Portsmouth is 50km and may also contribute to the figures for 40-60km as commuters traveling.  6.9% of the population travel 60km+, which may represent commuter travel to London (distance = 109km).	
<b>Usual time taken to travel to work (minutes)</b>	33		<b>South East (%)</b>	<b>UK (%)</b>		
		10 or less 11 – 20 21 – 30 31 – 40	33.7 29.7 17.5 5.1	31.3 28.5 18.2 5.6		

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
		41 – 50 51 – 60 More than 60	5.6 4.2 4.2	6.3 5.6 4.4		
Travel to School	34		<b>UK Age 5 – 10 (%)</b>	<b>UK Age 11 -16 (%)</b>	<p><b>5 – 10</b> Numbers of children walking to school fell from 62% in 1989/91 to 50% in 2004 whilst those traveling by car rose from 27% to 41%. The average length of journey for 5-10 year olds has increased from 2.1km to 2.7km over the same time period.</p> <p><b>11 - 16</b> The numbers of children walking fell from 48% to 44% between 1989/91 and 2004 whilst those traveling by car increased from 27% to 41%. The average journey distance increased from 4.5km to 4.7km for 11-16 year olds.</p> <p>At peak time, 8.45 on weekdays in term time 1 in 4 car trips by residents in urban areas is generated by school run.</p>	National figures have been provided in the absence of data for Winchester because the congestion caused by car trips to school and the safety implications of these levels of traffic are of national concern. The challenge for Winchester is to make walking or cycling to school an attractive proposition through the provision of safe walking and cycling routes. However the distance to school is increasing which will discourage walking. The proposed development for the area should include schools in walking distance to serve new developments.
		Walk Car Bus	50 41 9	44 22 24		
Rail	34	Rail passenger journeys in Hampshire increased by 19% between 1991/2000 and 2003/2004.		Most rail journeys in Hampshire are to local destinations within	The provision of new park and ride car parks could increase the	

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
				<p>the county.</p> <p>The County Council predict a slowing in the rate of increase between 2003/2004 and 2010/2011 to 6% due to the fact the network is more congested and approaching saturation in the peak hours.</p> <p>Most station car parks in Hampshire full by 9.00am so rail travel constrained by travel options to station.</p>	levels of rail use.
<b>Motorway</b>	34	Motorway traffic growth at 2% per year.		<p>Traffic flows over 100,000 vehicles/day regularly recorded on M3 between M27 and Winchester.</p> <p>M3/A34 junction at Winchester – significant delays particularly at the weekend where there is heavy tourist traffic.</p>	
<b>Cycling</b>	34	Hampshire has 750 miles of off-road cycle routes and urban cycle paths.		Cycling in Winchester equates to 4% of the population travelling to work and regionally averages 3.5% of journeys to work.	

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
Bus	34			Quality Bus Partnerships journeys increased by 20% in Winchester.	
Car Parks	34	<b>Car Parks</b>	<b>Spaces</b>		The development of Park and Ride facilities should help reduce congestion and City centre parking.
		<b>Winchester City</b>			
		Upper Brook Street	56		
		Cossack lane	46		
		Middle Brook lane	143		
		Friarsgate	263		
		Colebrook Street	77		
		Jewry lane	95		
		Chesil Multi-Storey	624		
		Chesil Street	87		
		Tower Street Multi-Storey	522		
		Durrgate	67		
		Worthy Lane	149		
		Coach park	103		
		Gladstone Street	115		
		St Peters	190		
		Cattle Market	198		
		The Brooks	323		
		Park & Ride St Catherines	785		
Guildhall Yard	29				
River Park Leisure Centre	244				
	<b>19</b>	<b>4116</b>			

## B.1.7 LANDSCAPE & TOWNSCAPE

### Summary

Winchester has both a rich architectural heritage and landscape setting. 40% of Winchester City Council area is part of the East Hampshire AONB and the designation of the South Downs National Park is proposed.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
<b>Topic: Landscape and Townscape</b>					
<b>Winchester District</b>		<p>Winchester district is predominantly rural covering 250 square miles of diverse countryside including chalk downs, large arable fields, extensive woodland, river valleys, heath remnants, historic parks and clay lowland. The district has over 50 rural settlements as well as Winchester City.</p> <p>The landscape of the district can be broadly divided into three distinct areas. The majority of the district is strongly influenced by the underlying chalk giving rises to two different areas of downland. The 'Hampshire Downs' landscape character area, lying to the north and east of Winchester is a broad belt of strongly rolling chalk downs with scarps, hilltops and valleys with an overall exposed character. The 'South Downs' landscape character area running through the centre of the district is associated with the east-west chalk ridge. This is a more elevated landscape combining rolling arable fields interspersed with scattered settlements, parkland and woodlands. To the south of the district the varied clays and gravels of the 'South Hampshire Basin' provide a contrastingly diverse enclosed and small scale landscape, consisting of lower lying mixed farmland and woodland.</p> <p>Winchester benefits from a large number of scattered areas of ancient woodland and large areas of more recent woodland. It is particularly found in the southern parishes and on the chalk downs. Winchesters hedgerows have a strong influence on the</p>			

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
		<p>character of the landscape with patterns varying significantly according to age of the landscape. Hedgerows of the 18<sup>th</sup> and 19<sup>th</sup> centuries are generally straighter with fewer species and found on the chalk downland. The more 'ancient' landscapes towards the south of the district were more likely to be enclosed and contain numerous species often being formed from remnant woodland.</p> <p>The well drained chalk geology of the majority of the Winchester district means that surface water features are uncommon. These parts of the district benefit from the clear alkaline springwater rivers of the Meon, Itchen and Dever. To the south where clay predominates springs, ponds and streams are numerous.</p>			
Area of admin geography (m2 thousands) (i.e. areas of boundary)	1	<b>Winchester</b>	<b>South East</b>	<b>England</b>	
		661,071.11	19,412,971.66	133,037,283.00	
Area of greenspace (m2 thousands)	1	608,279.37	16,442,704.44	115,741,625.40	<p>A Green Space Strategy could ensure no loss of greenspace and improve the current situation. (<i>Greensapce: Greenspace is any vegetated land or water within or adjoining an urban area Including derelict, vacant and contaminated land which has the potential to be transformed, natural and semi-natural habitats, Green corridors - paths, disused railway lines, rivers and canals</i>)</p>

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints
Area of water (m2 thousands)	1	3,313.97	527,873.24	3,436,199.04		
Areas of Outstanding Natural Beauty (AONB)	14	<b>East Hampshire AONB</b> – covers 40% of Winchester City Council district. 2 landscapes characterise this area, in the south and west rolling chalk downland with dry valleys and in the east and north steep heavily wooded scarp slopes. The area contains the rich Meon and Rother valleys, 4 NNRs, many SSSIs and part of the South Downs Environmentally Sensitive Area. It is also an important archaeological area. The AONB covers 31% of the South East.				The objectives of the AONB Management Plan should be supported by, and reflected in, the LDF. AONBs are recognised to be of the same importance, and have the same protection, as National Parks.
National Parks	14	PROPOSED - South Downs National Park Would include two Areas of Outstanding Natural Beauty (AONB): East Hampshire and the Sussex Downs and unlike any other National Park, it would include an area of chalk downland. Approximately 39 million people visit the area each year.				The National Park will have its' own independent planning authority.
Environmentally Sensitive Areas	14	South Downs & Test Valley extends into Winchester district along the River Dever.				Should be protected from development.
Landscape Character Areas	14 43	23 1. Hursley Scarplands 2. Sparsholt Woodlands 3. Crawley Downs 4. Wonston Downs 5. Dever Valley 6. North Dever Downs 7. Stratton Woodlands			The Countryside Quality Counts (CQC) study Tracking Change in the Character of the English Landscape 1999-2003, provides evidence about the ways the English countryside is changing and what implications this might have for achieving	Landscape Character Assessment is a useful tool to guide development and ensure that local character is not eroded.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
		8. North Itchen Downs 9. Upper Itchen Valley 10. Bighton Woodlands 11. Bramdean Woodlands 12. East Winchester Downs 13. Lower Itchen Valley 14. Cranbury Woodlands 15. South Winchester Downs 16. Upper Meon Valley 17. Hambledon Downs 18. Forest of Bere Lowlands 19. Portsdown Hill 20. Lower Meon Valley 21. Whiteley Woodlands 22. Shedfield Heathlands 23. Durley Claylands		<p>sustainable development.</p> <p>The Hampshire and South Downs are identified as Maintained areas.</p> <p>Maintained: if the character of an area is already strong and largely intact, and the changes observed for the key themes served to sustain it, or simply because the lack of change meant that the important qualities are likely to be retained in the long term.</p> <p>The study identifies the South Hampshire Lowlands as an area that is Diverging.</p> <p>Diverging: if the change in the key themes appeared to be transforming the character of the area so that either its distinctive qualities are being lost, or significant new patterns are emerging.</p>	
<b>Character areas</b>	41	8 in Winchester City	<ul style="list-style-type: none"> <li>▪ The Walled Town (including the Barracks area and Cathedral Close as distinct areas within the Walled</li> </ul>		Winchester City is of considerable historic and architectural interest and the

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints
		Town); <ul style="list-style-type: none"> <li>▪ Winchester College and Kingsgate;</li> <li>▪ The Riverside;</li> <li>▪ St Giles' Hill—the Eastern Suburb;</li> <li>▪ Christchurch Road;</li> <li>▪ St Cross;</li> <li>▪ Hyde—the Northern Suburb; and</li> <li>▪ Oram's Arbour and the Western Suburb</li> </ul>				definition of character areas will help guide development to ensure that the character is not eroded.
Land currently in use and allocated in a local plan for any use or with planning permission for any use: estimated dwellings	1	Winchester	South East	England		Potential to maximise use of previously developed land.
		80	67,840	357,490		
Land that is unused or could be available for redevelopment; estimated dwellings	1	410	160,190	986,050		Potential to maximise use of previously developed land.

## B.1.8 CULTURAL HERITAGE

### Summary

The District has a rich archaeological resource, including remains from prehistory to the military history of the last century and has an extensive amount of listed buildings. The City Council has designated 37 Conservation Areas in the District to date and has 109 Scheduled Ancient Monuments.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Cultural Heritage</b>					
World Heritage Sites	2	0	South East: 2	UK: 27	
Historic Buildings at Risk	3, 19	49	South East: 233	Figures fluctuate depending on levels of funding for repair and the characteristics of buildings (age, location, use).	Historic towns struggle with impacts of tourism unless carefully managed. Tourism is estimated to be worth approximately £135 annually to Winchesters economy. However adverse consequences such as erosion, congestion, pollution and intrusion can harm the preservation of protected sites. Fortunately the Tourism Strategy is aware of these issues and focuses on sustainable tourism to preserve historical culture and ensure
English Heritage Register of Buildings at Risk (2006)	41	Total – 5 Grade I (a) - 1 Grade II* - 2 Grade II Scheduled Monuments – 1	Test Valley – 0 Gosport - 7		
Number of listed	3, 18	2262	Hampshire:	Winchesters high percentage	

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>buildings</b>		(92% Grade II) (5.5% Grade II*) 2.5% Grade I	10,766 (93.4% Grade II) (4.6% Grade II*) (2% Grade I)  <b>UK:</b> 442,000 (94% Grade II) (4.1% Grade II*) (1.4% Grade I)	of Grade 1 buildings, reflect the historic nature of the town and the requirement for preservation.	<p>the quality of life of residents who may also be affected.</p> <p>The extensive stock of historic buildings in the District represents a major asset and should continue to enjoy a high level of protection. However, it should be accepted that sometimes alternative uses and alterations may be needed to ensure their continuing conservation.</p> <p>Whilst Conservation areas should not be seen as a barrier to development, good quality development should be sought to ensure their integrity is not undermined.</p>
<b>Number of archaeological sites of interest</b>	12	103	<b>UK:</b> 95,000		
<b>Registered Historic Battlefields</b>	4	1	<b>Hampshire:</b> 1 <b>England:</b> 43		
<b>Conservation Areas</b>	7	37	<b>Test Valley:</b> 36 <b>Hampshire:</b> 281 <b>England:</b> 8,000		
<b>Historic Parks and Gardens</b>	4	10	<b>Hampshire:</b> 57		
<b>Church of England Statistics</b>	41	<b>Winchester Diocese</b>		<b>Canterbury Diocese</b>	
		Total number of Churches	413	329	

Indicator	Data Source	Current Data	Comparators and targets		Trend	Issues/Constraints/ Opportunities
		% listed grade I or II*	48	67		
		Total % of listed churches	77	78		
<b>Scheduled Ancient Monuments</b>	41	109	<b>Hampshire:</b> 626			

## B.1.9 BIODIVERSITY

### Summary

The District is rich in habitat and biodiversity with designated Special Areas for Conservation, Special Protection Areas and Ramsar Sites. There are seventeen Sites of Special Scientific Interest of which nine are in favourable condition but the others are unfavourable and vary from recovering to declining. The District has two nationally designated nature reserves and ten local nature reserves. Biodiversity Action Plans are in place for both habitats and species.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Biodiversity</b>					
<b>Special Areas for Conservation (SAC)</b>	12	<b>Hampshire:</b> Salisbury Plain – 2.38% in Hampshire (21438.1 ha) The New Forest (29262.36 ha) Butser Hill (238.66 ha) River Itchen (309.26 ha) East Hampshire Hangers (569.68 ha) Emer Bog (37.5 ha) Mottisfont Bats (196.8 ha)	Within the District, the Itchen Valley is a designated SAC, as is part of the Hamble Valley within the District.		Requirement to screen for Appropriate Assessment if there is any threat from development.
<b>Special Protection Areas (SPA)</b>	15	<b>Hampshire:</b> Salisbury Plain (21438.1 ha) The New Forest (29262.36 ha) Solent & Southampton Water (5346.44 ha)			Requirement to screen for Appropriate Assessment if there is any threat from development.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Ramsar Sites</b>	15	<b>Hampshire:</b> The New Forest (29262.36 ha) Solent & Southampton Water (5346.44 ha)			Appropriate Assessment if there is any threat from development.
<b>Sites of Special Scientific Interest (SSSI)</b>	12, 15, 29	<p>Alresford Pond – unfavourable no change</p> <p>Beacon Hill, Warnford – favourable</p> <p>Botley Wood and Everett’s and Mushes Copses – favourable</p> <p>Cheesefoot Head – unfavourable recovering</p> <p>Crab Wood – favourable</p> <p>Galley Down Wood – favourable</p> <p>Hook Heath Meadows – unfavourable no change</p> <p>Lye Heath Marsh – favourable</p> <p>Micheldever Spoil Heaps – unfavourable declining</p> <p>Old Winchester Hill – favourable</p> <p>Peake Wood – favourable</p> <p>River Itchen – Unfavourable decline, areas of favourable</p> <p>St. Catherines Hill – unfavourable recovering</p> <p>The Moors, Bishop’s Waltham – unfavourable declining, part recovering</p> <p>Upper Hamble Estuary and Woods (in part) – favourable</p> <p>Waltham Chase Meadows – favourable</p>		17 in 2006	<p>Nine of the seventeen SSSIs are in favourable condition whilst the others are unfavourable with some declining or recovering. Monitoring is necessary to ensure the continued favourable condition of the sites of the former sites.</p> <p>Management plans should be put in place to improve the condition of unfavourable sites.</p>
<b>National Nature Reserves (NNR)</b>	14	2	<p><b>Hampshire:</b> 11</p> <p><b>England:</b> 215</p>		All nature reserves should be protected through LDF policy.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
Local Nature Reserves (LNR)	12	10	Hampshire: 40 England: 1050		All nature reserves should be protected through LDF policy.
EN Natural Areas	17	3 Hampshire Downs, South Downs and South Coast Plain, Hampshire Lowlands.	21 - South East 29 - South West		
Sites of Importance for Nature Conservation (SINC)	14	500			These sites should have protection as in the current adopted local plan.
Biodiversity Action Plan Species	16	Amphibians	Natterjack Toad ( <i>Bufo calamita</i> ) Great Crested Newt ( <i>Triturus cristatus</i> )		Protection from development of all protected species should be reflected through LDF policy. Opportunities should be taken to enhance habitat where possible.
		Beetles	Noble chafer ( <i>Gnorimus nobilis</i> ) Gilkicker weevil ( <i>Pachytychius haematocephalus</i> )		
		Crustaceans	Freshwater White-clawed Crayfish ( <i>Austropotamobius pallipes</i> )		
		Damsel/ dragonflies	Southern Damselfly ( <i>Coenagrion mercuriale</i> )		
		Flies	Hornet robberfly ( <i>Asilus crabroniformis</i> )		
		Local species	Birds of Wet Meadows (inc. UK priority species) Branta bernicla bernicla, Dark-bellied brent goose, Bumblebees Butterflies and Moths		

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
			(inc. UK priority species), <i>Coronella austriaca</i> , Smooth snake, <i>Eptesicus serotinus</i> , Serotine bat, Seed Eating Farmland Birds (inc. UK priority species), Shorebirds (inc. UK priority species), Tooth Fungi (inc. UK priority species), <i>Valvata macrostoma</i> , large-mouthed valve snail, Woodland Lichens (inc. UK priority species)		
		Mammals	Water Vole ( <i>Arvicola terrestris</i> ), Barbastelle Bat ( <i>Barbastella barbastellus</i> ), Otter ( <i>Lutra lutra</i> ), Dormouse ( <i>Muscardinus avellanarius</i> ), Bechstein`s Bat ( <i>Myotis bechsteinii</i> ), Pipistrelle Bat ( <i>Pipistrellus pipistrellus</i> ), Greater Horseshoe Bat ( <i>Rhinolophus ferrumequinum</i> )		
		Worms	Medicinal Leech ( <i>Hirudo medicinalis</i> )		
<b>Biodiversity Action Plan Habitats</b>	16	Local habitat	Ancient semi-natural Woodland, Arable land, Canals, Ephemeral Ponds, Fen, Carr, Marsh, Swamp, Reed beds, Heathland, Acid Grassland and Bog, Lowland wet Grassland, Neutral Grassland, Open Standing Water		Protection from development of all identified habitats should be reflected through LDF policy. Opportunities should be taken to enhance habitat where possible.
		Priority Habitats	Ancient and/or species-rich hedgerows, Cereal field margins, chalk rivers, Eutrophic standing waters, fens, Lowland beech and yew woodland, Lowland calcareous grassland, Lowland dry acid grassland, Lowland heathland, Lowland meadows, Lowland wood-pasture and parkland, Mudflats, Purple moor grass and rush pastures, Reedbeds, Saline lagoons, Seagrass beds, Wet woodland,		

## B.1.10 WATER RESOURCES

### Summary

Water supply in Hampshire is usually of high quality and resources depend on the groundwater stored in the chalk aquifers of the Hampshire Downs. Hampshire has no above ground storage reservoirs. There has been a 12% net increase in water quality in the county since 1990 but the Itchen has seen an increase in nutrient levels from sewage works (mainly phosphate) and farmland run-off (mainly nitrate) due to increased concentrations as a result of population growth and agricultural intensification. In the River Test and Itchen Catchment Area there are over 3,000 properties at risk of flooding.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Water Resources</b>					
Rivers	37	River Itchen Upper stretch of the Hamble River Meon  The site condition is substantially affected by low river flow and high soluble phosphorus concentrations.  Hampshire has 15 major rivers, all heavily dependent on groundwater stored in the chalk aquifers.  Hampshire has no above ground storage reservoirs.			
Chemical river water quality	8, 9	<b>Itchen:</b> Good	<b>South East (2003 – 2005)</b> 84% Good 9% Fair 6.7% Poor/Bad	12% net increase in water quality in the county since 1990.	Increases in population have resulted in large sewage treatment works discharging directly to the lower reaches of the river. Effluent at Winchester and Alresford is discharged to the river and ground using the capacity of
Biological river water quality	8, 9	<b>Itchen:</b> Good	<b>South East (2003 – 2005)</b> 94% Good 4.5% Fair		

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
			1.7% Poor/Bad		
<b>River water phosphate levels</b>	8, 9	<b>Itchen:</b> Very High phosphate levels	<b>South East (2003 – 2005)</b> 22.6% Good 24.4% Poor 53% Bad	The Itchen has seen an increase in nutrient levels from sewage works (mainly phosphate) and farmland run-off (mainly nitrate) due to increased concentrations as a result of population growth and agricultural intensification.	the Chalk to treat it to a high standard. The Environment Agency sets stringent conditions on the quality and quantity of discharged effluents however this must be maintained to ensure the river and groundwater quality are preserved to high standards.  Furthermore planned development in the south and climate change pose uncertainties in the future
<b>River water nitrate levels</b>	8, 9	<b>Itchen:</b> Fair	<b>South East (2006)</b> 50% of the SE is designated as surface or ground water Nitrate Vulnerable Zones (NVS)		
<b>Abstraction from groundwaters</b>	9	70% of drinking water for South East provided by groundwater. 59% of abstracted water requires treatment.  Estimated public water supply abstraction deficit during warm dry summers is of the order of 45MI/d for a low flow target of 270MI/d. This deficit is equivalent to the water consumption of some 250,000 people in Hampshire and Isle of Wight.  Downstream of the Otterbourne surface water abstraction intake, the public water supply abstraction impacts on the 7 kilometres of river channel to the Chickenhall sewage treatment works outfall. The Chickenhall sewage treatment works		Water supply in Hampshire is usually of high quality and resources depend on the groundwater stored in the chalk aquifers of the Hampshire Downs. Public water supply sources and large potable abstractions are protected from pollution by Source Protection Zones, which prevent polluting discharges to groundwater. Activities are controlled within Source Protection Zones, on Major Aquifers, and to some	The population of Hampshire, Portsmouth and Southampton is projected to increase by 11% between 2001 and 2021 this is likely, coupled with the effects of climate change, to increase demands on water supplies. Any new planned development may worsen the deficit if not managed in a sustainable manner.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
		effluent discharge ensures that the Gaters Mill abstraction does not cause a fall in river flows to levels below 35% of the September naturalized flow.		extent Minor Aquifers. There are large SPZs across Hampshire particularly in the Downlands and central swathe in chalk dominated areas.	
<b>Drought</b>	37	No public water supply restrictions since 1977 in Winchester or Hampshire			
<b>Properties at risk from flooding</b>	10	In the River Test and Itchen Catchment Area economic damages due to flooding average £7million per year, with over 3,000 properties at risk.	<b>South East:</b> 310,000 properties at risk from coastal and river flooding	The risk has increased due to changes in the catchment (urbanisation, field drainage), houses built on inappropriate land encroaching on flood plains and the possible effects of climate change (increased flood generating rainfall more frequent).	Risks to people, property and infrastructure are concentrated predominately in Winchester, with further dispersed flood risks through rural villages. A flood warning system is in place, and being improved, with about half of known flood risk properties presently receiving a warning.

## B.1.11 AIR QUALITY

### Summary

Winchester City has one Air Quality Management Area which is improving. There have been no days when air pollution has been reported as moderate or higher. Nitrogen Dioxide levels are similar to 2004, meeting 24 hour mean objective but not complying with yearly mean objective. Previous studies show road traffic to be the main emission source of nitrogen dioxide.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Air Quality</b>					
<b>Air Quality Management Areas (AQMA)</b>	12	1 – Winchester Town Centre (Nitrogen Dioxide and Particles)		The extent of the AQMA is considerably smaller when compared to the 2005 area of exceedence. However the results show that additional measures may be required to bring about the necessary reductions in traffic emissions in the city centre to comply with the 2010 EU Limit Values.	Unless the high levels of traffic in Winchester City centre can be reduced the AQMA will remain. However it can be used as incentive to increase the numbers of commuters using alternative sustainable transport to reduce emissions.
<b>Automatic air monitoring sites</b>	15	Two real time air quality monitoring stations in Winchester town centre. These consist of a background site at Lawn Street near Friarsgate (Nitrogen dioxide and Particles) and a roadside site in St Georges Street (Nitrogen dioxide, Carbon monoxide and particles).  Over forty nitrogen dioxide diffusion tubes monitoring air quality across both the town centre and the			

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
		district. Recently installed several lamppost mounted devices measuring particle levels at three other locations within the town centre.			
<b>Number of days when air pollution reported as moderate or higher</b>	15	0			
<b>Pollutant levels (annual mean ug/m<sup>3</sup>)</b>	15 16				
<b>Benzene</b>		Data Gap No locations that require a detailed assessment.			
<b>1,3-Butadiene</b>		Data Gap No locations that require a detailed assessment.			
<b>Carbon monoxide</b>		Data Gap No locations that require a detailed assessment.			
<b>Lead</b>		Data Gap No locations that require a detailed assessment.			
<b>Nitrogen dioxide</b>		26.2mg/m <sup>3</sup>  Similar to 2004, meeting 24 hour mean objective but not complying with yearly mean objective.  Previous studies show road traffic to be the main emission source of nitrogen dioxide			Unless the high levels of traffic in Winchester City centre can be reduced this will remain an issue. However it can be used as an incentive to increase the numbers of commuters using alternative sustainable transport, reducing emissions of nitrogen dioxide.
<b>PM10</b>		22.5mg/m <sup>3</sup>			

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities			
		In compliance with 24 hour and yearly mean objective						
<b>Sulphur dioxide</b>		Data Gap No locations that require a detailed assessment.						
<b>Exceedance of Air Quality Objectives</b> Air Quality Data – Winchester Town Centre		<b>PM10</b> 50 ug/m3 (24 hr mean)	<b>NO2</b> 200ug/m3 (1 hr mean)	<b>CO</b> 10mg/m3 (8 hr running mean)	The situation is improving and the measures undertaken to achieve this should be continued and built upon.			
		Background	Roadside	Background		Roadside	Background	Roadside
		<b>8</b>	<b>15</b>	<b>0</b>		<b>0</b>	<b>N/A</b>	<b>0</b>
		<b>Pass = less than 35 failures/year</b>		<b>Pass = less than 18 failures/year</b>			<b>Pass = no failures of objectives per year</b>	

## B.1.12 CLIMATIC FACTORS

### Summary

There is no available data for Winchester City Council district so figures for the South East are given. The South East has the greatest volume of carbon dioxide emissions in the UK and overall the country has seen a rise in emissions of 12.4% since 1990. Total carbon dioxide emissions in 2006 for the South East were approximately 71 million tonnes. Energy from renewable sources account for only 0.65% of total current generating capacity in the region compared to the UK national average figure of 2.5%. Hampshire's sub-regional targets by 2010 is to generate at least 115MW and by 2016 at least 122MW. Hampshire, alongside the Isle of Wight, Kent, Thames Valley and Surrey have the greatest potential in the South East for onshore wind development and installation of photovoltaics.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities		
<b>Topic: Climatic Factors</b>							
Climate Change		South East: Over the past century average temperature has risen by 0.5°C and summer rainfall has decreased.					
Carbon dioxide emissions		<b>Winchester (tonnes CO2/head):</b>  2003 Total – 11.1 2003 Domestic – 2.7  2004 Total – 12 2004	<b>SOUTH EAST Total emissions 2004 (million tonnes carbon dioxide)</b>				The South East has the greatest volume in the UK and overall the country has seen a rise in emissions of 12.4% since 1990.  As the South East is the greatest UK contributor to carbon dioxide emissions, Winchester should consider estimating its' carbon emissions and setting targets
			Industrial, commercial & public	Domestic	Road Transport	Total	
			25	21	23	69	
			<b>SOUTH EAST Per capita emissions 2004 (tonnes carbon dioxide per</b>				

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities	
		Domestic – 3.1  Hampshire: 16 million tonnes/year	resident  Industrial, commercial & public  3.1	Domestic  2.7  Road Transport  2.9  Total  8.7		for improvement.
			South East Total carbon dioxide emissions in 2006 approximately 71 million tonnes  UK Net emissions of carbon dioxide during 2006 have provisionally been estimated at around 560.6 million tonnes, about 5¼ per cent lower than the 1990 level of 592.1 million tonnes	The South East produces the greatest volume in the UK and overall the country has seen a rise in emissions of 12.4% since 1990.		
Greenhouse gas emissions		Data Gap	UK: 718.5 million tonnes in 2001	The six greenhouse gases fell by 14.6 per cent between the base year, 1990 and 2004	UK total fallen by 7.6% since 1990	
Annual Average Concentration of Major Gases		Data Gap	National Air Strategy Targets: NO2 40µg/m3 Annual mean (to be achieved by 31/12/05)/ CO 10mg/m3 max daily running mean (31/12/03)/ PM10 40µg/m3 Annual mean (31/12/04)/ SO2 20µg/m3 Annual mean (31/12/00)			

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Current Renewable Generation Capacity</b>		Hampshire and the Isle of Wight: Installed Operational Capacity 2006: 0.94MWe (Solar PV: 0.28; Bio and Sewage Gas: 0.34; Onshore Wind: 0.32)	South East installed renewable energy: 73 MW 1 MW – Onshore Wind 72 MW – Energy from Waste	Renewables account for only 0.65% of total current generating capacity in the region compared to the UK national average figure of 2.5%	New development offers opportunities to incorporate energy from renewable sources. The LDF can now set targets for the use of renewable energy in new development and also policies to facilitate provision of macro generation for existing dwellings.
<b>Renewable Energy Targets</b>		There are opportunities in the region for combustion plants, biogas plants, wind turbines, geothermal sources and photovoltaic installations.	By 2010 the South East is to generate at least 5.5% of electricity from renewable sources and by 2026 at least 16%.	Hampshire (sub-regional targets) by 2010 to generate at least 115MW and by 2016 at least 122MW.	The LDF can facilitate renewable energy development projects by including positive and enabling policies. Hampshire (sub-regional targets) by 2010 to generate at least 115MW and by 2016 at least 122MW. Hampshire, alongside the Isle of Wight, Kent, Thames Valley and Surrey have the greatest potential in the South East for onshore wind development and installation of photovoltaics.

## B.1.13 SOILS & MINERALS

### Summary

The district has three major soil groups; - Shallow lime-rich soils over chalk, freely draining lime-rich loamy soils and freely draining acid loamy soils. There district maintains an agricultural economy and there are 777 agricultural holdings. The emerging South East Plan requires that Hampshire should plan to maintain a landbank of at least seven years of permissions for land-won sand and gravel and a supply rate of 2.63 million tonnes a year until 2016.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Soil and Minerals</b>					
<b>Winchester</b>		The geological range is sedimentary and the deposits are generally younger towards the south of the district. The northern part of the district is dominated by the chalk series of the Cretaceous period and forms part of the Hampshire Downlands. Upper chalk is the youngest of the series and is the most common outcrop. Middle and lower chalk emerge to the south east of Winchester, the other main area occurs to the east of the district around Meonstoke, Warnford and Old Winchester Hill. Many areas of the chalk are thinly covered by clay.			
<b>Major Soil groups</b>		<ul style="list-style-type: none"> <li>- Shallow lime-rich soils over chalk</li> <li>- Freely draining lime-rich loamy soils</li> <li>- Freely draining acid loamy soils</li> </ul>	<b>South East:</b> <ul style="list-style-type: none"> <li>- Shallow lime-rich soils over chalk</li> <li>- Freely draining lime-rich loamy soils</li> <li>- Freely draining acid loamy soils</li> <li>- Slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils</li> <li>- Naturally wet, very acid sandy and loamy soils</li> </ul>		The best and most versatile agricultural land should be protected from development.
<b>Agricultural Holdings</b>	26	777	Hampshire: 4,204		The area still has a reasonable

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>2003 Agricultural Census</b>			New Forest: 1,045 Basingstoke & Dean: 544 Fareham: 80 Southampton: 25		agricultural economy and support should be provided for this to continue.
<b>Plan area's permitted reserves: Sand and Gravel</b>	27	Data Gap	The estimated land bank of permitted reserves of sand and gravel in Hampshire at the beginning of 2005 was sufficient for only 4.15 years supply at current planned extraction rates - 2.7 million tonnes a year.		
<b>Targets: Sand and Gravel</b>	27		The emerging South East Plan requires that Hampshire should plan to maintain a landbank of at least seven years of permissions for land-won sand and gravel and a supply rate of 2.63 million tonnes a year until 2016.		Mineral workings can erode landscape value and restoration conditions should be in place for remediation when sites are worked out.

## B.1.14 WASTE

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### Summary

Winchester has experienced both an increase in household waste arisings and a recent gradual improvement in recycling rates. Substantial improvements in recycling rates will be required to reach the 2005/6 statutory recycling target. There is a need to increase waste handling capacities in Winchester which may be addressed by Project Integra. Project Integra will seek to minimise the amount of waste needing landfill to a minimum practical level by 2020. Specifically, the partners will seek to divert the following amounts of municipal waste from landfill disposal: • 71% by 2010 • 79% by 2015 • 84% by 2020, and positively contribute to the achievement of the following MRS recycling and composting targets for all waste: • 50% by 2010 • 55% by 2015 • 60% by 2020. The Project Integra business plan also sets an overall target of 50% recycling for municipal waste by 2010 and an individual target of 40% for Waste Collection Authorities.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities
<b>Topic: Waste</b>					
<p><b>Total Municipal Arisings 2003/04 to 2004/05 (tonnes)</b></p> <p>Figures in brackets and italics relate to household waste arisings only</p>	<p>22</p>	<p><b>Winchester City Council</b></p> <p><b>2003/04:</b> 48 358 <i>(43 761)</i></p> <p><b>2004/05 (provisional):</b> 49 313 <i>(44 622)</i></p>	<p><b>2003/04</b></p> <p>Fareham Borough Council: 43 567</p> <p>Southampton City Council: 103 640</p> <p>Hampshire: 876 468 (861 885)</p> <p><b>2004/05 (provisional)</b></p> <p>Fareham Borough Council: 43 563</p> <p>Southampton City Council: 104 603</p> <p>Hampshire: 892 720 (846 041)</p>	<p><b>% Change</b></p> <p>Winchester: +2.0%</p> <p>Fareham: -0.01%</p> <p>Southampton: +0.9</p> <p>Hampshire: +1.9</p>	<p>In line with the average for Hampshire, Winchester has seen a rise in household waste arisings. This is probably a product of an increasing population. As the County aims to reduce the amount of waste going to landfill this will have to be addressed.</p> <p>New development should have adequate space for storage of materials for recycling and composting where practical.</p>

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints/ Opportunities																											
<p><b>Estimated Tonnage of Household Waste by Material (2003/04):</b></p>		<p>Data Gap</p>	<p><b>HAMPSHIRE</b></p> <hr/> <table border="1"> <thead> <tr> <th data-bbox="824 427 1037 459">Material Stream</th> <th data-bbox="1081 427 1332 483">Estimated tonnage (2003/04)</th> <th data-bbox="1417 427 1619 459">% Composition</th> </tr> </thead> <tbody> <tr> <td data-bbox="824 523 969 579">Paper and Card</td> <td data-bbox="1160 523 1261 555">284 422</td> <td data-bbox="1473 523 1563 555">33.0%</td> </tr> <tr> <td data-bbox="824 595 969 627">Putrescible</td> <td data-bbox="1160 595 1261 627">258 565</td> <td data-bbox="1473 595 1563 627">30.0%</td> </tr> <tr> <td data-bbox="824 643 925 675">Plastics</td> <td data-bbox="1160 643 1261 675">112 045</td> <td data-bbox="1473 643 1563 675">13.0%</td> </tr> <tr> <td data-bbox="824 691 925 722">Metals</td> <td data-bbox="1160 691 1261 722">43 094</td> <td data-bbox="1473 691 1563 722">5.0%</td> </tr> <tr> <td data-bbox="824 738 925 770">Textiles</td> <td data-bbox="1160 738 1261 770">43 094</td> <td data-bbox="1473 738 1563 770">5.0%</td> </tr> <tr> <td data-bbox="824 786 981 842">Glass Bottles/Jars</td> <td data-bbox="1160 786 1261 818">34 475</td> <td data-bbox="1473 786 1563 818">4.0%</td> </tr> <tr> <td data-bbox="824 850 1014 882">Miscellaneous</td> <td data-bbox="1160 850 1261 882">86 188</td> <td data-bbox="1473 850 1563 882">10.0%</td> </tr> <tr> <td data-bbox="824 898 913 930"><b>TOTAL</b></td> <td data-bbox="1160 898 1261 930"><b>861 885</b></td> <td data-bbox="1473 898 1574 930"><b>100.0%</b></td> </tr> </tbody> </table>	Material Stream	Estimated tonnage (2003/04)	% Composition	Paper and Card	284 422	33.0%	Putrescible	258 565	30.0%	Plastics	112 045	13.0%	Metals	43 094	5.0%	Textiles	43 094	5.0%	Glass Bottles/Jars	34 475	4.0%	Miscellaneous	86 188	10.0%	<b>TOTAL</b>	<b>861 885</b>	<b>100.0%</b>		
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<p><b>Landfill Targets for Hampshire</b></p>	<p>22</p>	<p>Project Integra will seek to minimise the amount of waste needing landfill to a minimum practical level by 2020. Specifically, the partners will seek to divert the following amounts of municipal waste from landfill disposal:</p> <ul style="list-style-type: none"> <li>• 71% by 2010</li> <li>• 79% by 2015</li> <li>• 84% by 2020</li> </ul>																														

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<b>Waste Handled in Hampshire 2002/03</b> (including Portsmouth and Southampton)	26	Inert: 2,148,057  Special (hazardous): 91,610  Municipal (MSW): 932,326  Commercial/Industrial: 1,468,375  <b>Total: 4,640,368</b>		There is a need to increase waste handling capacities in the districts of Southampton, Eastleigh, Havant, Rushmoor, Winchester, Fareham, Gosport and East Hampshire.	This should be noted in the LDF and sites identified if necessary.																																												
<b>Imports and Exports</b>	27	2002/3 approximately 18% of waste produced in Hampshire was exported, whilst 13% of waste disposed of in Hampshire was imported from elsewhere. Target date for achieving net self-sufficiency by 2016																																															
<b>Actual rates of Recycling/ Composting 1998/99 - 2004/05 versus Statutory Standards for 2005/06</b>	22	<table border="1"> <thead> <tr> <th></th> <th>1998/99 (actual %)</th> <th>2000/01 (actual %)</th> <th>2001/02 (actual %)</th> <th>2002/03 (actual %)</th> <th>2003/04 (actual %)</th> <th>2004/05 (actual %)</th> <th>2005/06 statutory target %)</th> </tr> </thead> <tbody> <tr> <td>Hampshire</td> <td>23</td> <td>25</td> <td>21</td> <td>26</td> <td>27.02</td> <td>30.28</td> <td>30</td> </tr> <tr> <td>East Hampshire</td> <td>8</td> <td>14</td> <td>16</td> <td>23</td> <td>31.83</td> <td>31.99</td> <td>24</td> </tr> <tr> <td>Eastleigh</td> <td>26</td> <td>39</td> <td>27</td> <td>28</td> <td>29.99</td> <td>31.52</td> <td>30</td> </tr> <tr> <td>Fareham</td> <td>19</td> <td>16</td> <td>17</td> <td>22</td> <td>22.09</td> <td>22.16</td> <td>30</td> </tr> </tbody> </table>								1998/99 (actual %)	2000/01 (actual %)	2001/02 (actual %)	2002/03 (actual %)	2003/04 (actual %)	2004/05 (actual %)	2005/06 statutory target %)	Hampshire	23	25	21	26	27.02	30.28	30	East Hampshire	8	14	16	23	31.83	31.99	24	Eastleigh	26	39	27	28	29.99	31.52	30	Fareham	19	16	17	22	22.09	22.16	30	Winchester has experienced a steady reduction in recycling rates and is a long way from the 2005/6 statutory target. However Project Integra does appear to be addressing this through trial recycling collections and setting targets for future reduction.
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		Havant 17 New Forest 22 Test Valley 22 <b>Winchester 21</b>	17 23 19 <b>22</b>	18 24 22 <b>14</b>	16 23 13 <b>16</b>	18.50 24.47 13.75 <b>17.33</b>	21.20 24.79 19.36 <b>17.48</b>	30 30 30 <b>30</b>		
<b>Recycling Targets for Hampshire</b>	22	<p>The partners of Project Integra will seek to positively contribute to the achievement of the following MRS recycling and composting targets for all waste:</p> <ul style="list-style-type: none"> <li>• 50% by 2010</li> <li>• 55% by 2015</li> <li>• 60% by 2020</li> </ul> <p>The Project Integra business plan also sets an overall target of 50% recycling for municipal waste by 2010 and an individual target of 40% for Waste Collection Authorities.</p>								

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Recycling Sites 2007	23	<p>Glass: 61 Green, 46 Brown, 50 Clear 4 Glass Skip Banks.</p> <p>Paper: 26 Cans: 12 Books: 12 Textiles: 12</p>	Hampshire: 26 sites accepting metals, glass, paper and card, cans, textiles, engine oil and car batteries, some sites also accept plastic bottles and garden waste for composting.														

## Key to Data Sources

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1	National Statistics 2001, <i>Neighbourhood Statistics: Winchester</i> , [online] available: <a href="http://neighbourhood.statistics.gov.uk/dissemination/LeadKeyFigures.do?a=7&amp;b=276987&amp;c=Winchester&amp;d=13&amp;e=16&amp;g=453056&amp;i=1001x1003x1004&amp;m=0&amp;enc=1">http://neighbourhood.statistics.gov.uk/dissemination/LeadKeyFigures.do?a=7&amp;b=276987&amp;c=Winchester&amp;d=13&amp;e=16&amp;g=453056&amp;i=1001x1003x1004&amp;m=0&amp;enc=1</a> [accessed 5 March 2007]
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14	Winchester City Council 2004, <i>Environmental Strategy</i> , [online] available: <a href="http://www.winchester.gov.uk/Documents/Sustainability/Environment%20Strategy%202004-2008.doc">http://www.winchester.gov.uk/Documents/Sustainability/Environment%20Strategy%202004-2008.doc</a> [accessed 9 March 2007]

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22	<a href="http://www.integra.org.uk/board/index.html">http://www.integra.org.uk/board/index.html</a>
23	<a href="http://www.integra.org.uk/about/ywys.html#Winchester">http://www.integra.org.uk/about/ywys.html#Winchester</a>

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25	<a href="http://www.see-stats.org/stats-hampshire-iow.htm">http://www.see-stats.org/stats-hampshire-iow.htm</a>
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