

**Core Strategy**  
Development Planning Document

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**Sustainability Appraisal**

Baseline Report

**Health • Social inclusiveness • Accessibility  
• Heritage • Biodiversity • Economy  
Education • Culture • Resources • Safety  
Community • Environment • Health • Social  
inclusiveness • Accessibility • Heritage  
Biodiversity • Economy • Education •  
Culture • Resources • Safety • Community  
Environment • Health • Social inclusiveness  
Accessibility • Heritage • Biodiversity**

**Core Strategy  
Development Planning Document**

**Sustainability Appraisal:  
Baseline Report**

**Prepared by:**

Strategic Planning Group  
Spatial Planning  
Environment  
Torbay Council  
3<sup>rd</sup> Floor Roebuck House  
Abbey Road  
Torquay  
TQ2 5TF

For further information regarding this Baseline Report or request an alternative format or language; please contact the Strategic Planning Group Tel: 01803 208857.

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## Introduction

The baseline information is fundamental to the Core Strategy Sustainability Appraisal (SA) report. It helps to identify sustainability issues, support the prediction and evaluation of impacts and set a baseline for further monitoring.

Baseline data should cover likely evolution without implementation of the plan, cover characteristics of the area likely to be significantly affected, identify data gaps, be easy to update, and allow data to be easily used for other SA reports.

This baseline survey covers the social, environmental and economic characteristics of Torbay. These include the Strategic Environmental Assessment (SEA) topics such as air quality, biodiversity, climatic factors, cultural heritage and landscape, economic development, energy, material assets, population and human health, social inclusion, transport, waste and water and soil.

## 1. Social Characteristics

This section discusses and provides statistics of the SEA topics relevant to population and human health, social inclusion and material assets.

### 1.1 Population and Human Health

#### 1.1.1 Population Structure

Torbay has an estimated resident population of 133,200 in 2006. Population projection estimates show a relatively high growth rate for Torbay in comparison to regional and national projections. Table 1.1 shows population growth projections over the next 20 years. A high population growth within Torbay has implications for the future provision of services and increasing pressures for development and generation of traffic. It should be noted that in addition to the resident population, Torbay experiences significant increases in population at peak times in the tourist season, adding a further 80,000 visitors across the bay.

**Table 1.1: Estimated Population Growth for Torbay compared to other areas of Devon, South West Region <sup>1</sup>**

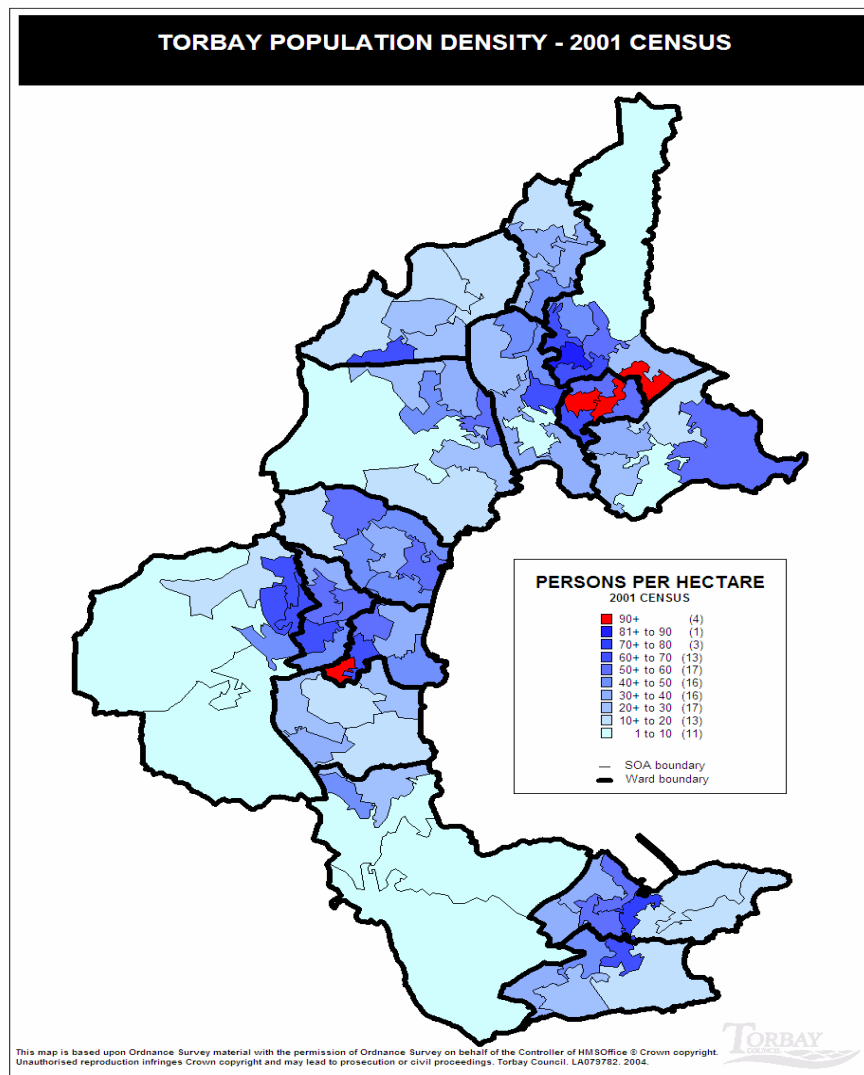
Area	2004 Mid-Year Estimate ('000s)	Estimated Population Growth	
		2004 to 2010	2004 to 2020
Devon County	724.1	5.81%	14.97%
East Devon	128.9	6.28%	17.29%
Exeter	113.4	5.20%	11.90%
Mid Devon	72.6	7.85%	19.83%
North Devon	90.3	6.09%	15.84%
Plymouth	243.5	1.68%	4.52%
South Hams	82.3	2.07%	6.80%
South West	5,041.70	4.45%	11.76%
Teignbridge	124	5.16%	14.03%

<sup>1</sup> Revised 2004 based, 2006 SNPP, ONS



<b>Torbay</b>	<b>132.5</b>	<b>6.42%</b>	<b>16.91%</b>
Torrige	62.4	9.94%	24.52%
West Devon	50.3	5.17%	13.72%

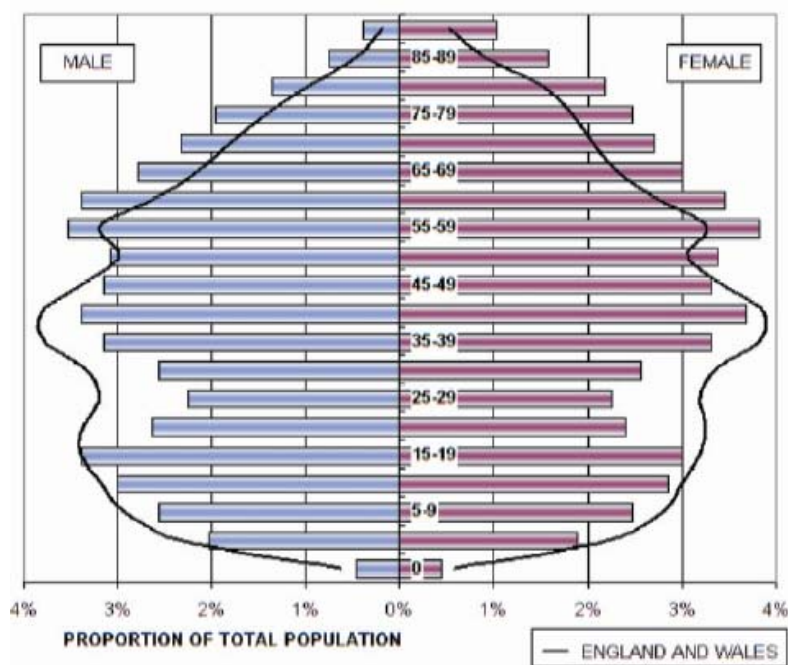
Development patterns are such that the majority of Torbay’s population is contained within the urban areas of Torquay, Paignton and Brixham. These urban areas are constrained by natural topography and have a high average population density relative to other areas within Devon. The average density in Torbay is 21.1 persons per hectare ranging from 1 to 10 people per hectare in rural fringes surrounding the towns, to concentrations in excess of 90 people per hectare in parts of Ellacombe (Torquay) and Roundham and Hyde (Paignton) (see Figure 1.1). This can be compared to 1.1 persons per hectare in Devon, 2.1 in the South West Region and 3.6 in England and Wales.



**Figure 1.1: Torbay Population Density, 2001 census<sup>2</sup>**

<sup>2</sup> The Consultation and Research Team, Torbay Council, Key Statistics for Torbay (2008)

Figure 1.2 illustrates that Torbay’s population is skewed towards a high proportion of elderly residents compared to national averages. Torbay population structure has a distinct older person bias as Torbay continues to be a popular retirement destination. An increase in 65 and over age group is expected from around 30,000 people currently (22%) to around 50,000 (30%) by 2029<sup>3</sup>. This has implications for health care and service provision as well as for increasing pressures for single person households. This is a similar trend to that which is found amongst several coastal areas in the South West for example Dorset, East Devon and the neighbouring South Devon coastline. The high proportion of elderly is matched by a smaller than average proportion of population in the working age group of 20-45. This may be attributed to poor career opportunities which encourage young qualified and older experienced workers to move elsewhere in search of better job prospects. The working population is predicted to decrease from 48.5 to 45.1% of the total by 2021.



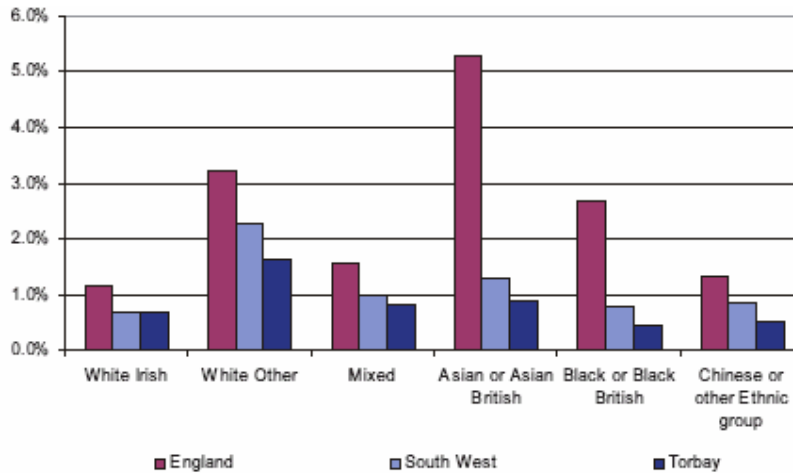
**Figure 1.2: 2006 Mid-Year Estimate Population Pyramid for Torbay compared with England and Wales<sup>4</sup>**

The number of people from a black and minority ethnic (BME) group living in Torbay increased significantly between the 1991 and 2001 censuses, and in 2001 accounted for 3.2% of the resident population. Since 2001 the BME population has increased further in Torbay and latest estimates are shown in Figure 1.3 below<sup>5</sup>.

<sup>3</sup> Torbay PCT, Director of Public Health Annual Report (2007)

<sup>4</sup> ONS, MYE (2006)

<sup>5</sup> Consultation and Research Team, Key Statistics for Torbay 2008



**Figure 1.3: BME grouping 2005**

According to the Office of National Statistics 2001 the proportion of people stating their religion as Christian in Torbay is 76.19% compared to 14.91% people with no faith.

### 1.1.2 Life Expectancy and Mortality

Life expectancy has been generally increasing across Torbay for both males and females since 1991 and consistently remains slightly above national averages. Male life expectancy for 2003-2005 stood at 76.5 years and female life expectancy at 81.7<sup>6</sup>.

Mortality from circulatory diseases (under 75 years of age) has declined substantially from 1995/1997, parallel to England’s trends and in 2002/2004 still remains below the local threshold set for the Primary Care Trust (PCT) by the Department of Health. Deaths from cancer dropped between 1995 and 2001 after which figures have risen slightly to just above thresholds set by the PCT.

The majority of cancer deaths are from lung cancer which has brought the National anti-smoking campaign to a local level. Torbay has a higher estimated smoking prevalence of 28% compared to the estimated prevalence of 27% in England<sup>7</sup>.

### 1.1.3 The Elderly

The high proportion of elderly population in Torbay places pressure on the local health care systems. This has resulted in a situation where places in nursing homes, residential homes and provision of domiciliary care are difficult to obtain and provided largely by the private sector. Torbay has a higher than National and South West average number of pensioners living alone. As a consequence of this, increased pressure is placed on families and friends to provide unpaid care. The 2001 census recognised that 14,000 people in Torbay were providing unpaid care of family members or friends (see Table 1.2).

<sup>6</sup> The Audit Commission (2008)

<sup>7</sup> Torbay PCT, Director of Public Health Annual Report (2007)

**Table 1.2: Proportion of population providing unpaid care<sup>8</sup>**

England	9.93%
South West	10.05%
<b>Torbay</b>	<b>10.70%</b>

Attempts to alleviate the pressures of caring for the elderly have been addressed through Government funding to provide a special grant for additional breaks. In 2003/2004 6,655 additional breaks were organised with 7,250 planned for 2004/2005.

#### **1.1.4 Dental Care**

There have been notable difficulties associated with provision of dental care both nationally and locally in recent years. Dentists as independent contractors can choose the amount of NHS work they undertake. In Torbay this has resulted in a reduction of those registered with a dentist to receive NHS care.

NHS Dentistry has undergone many changes in recent years, including the make up of the dental workforce. These changes may have produced higher levels of referral to Torbay Hospital. The introduction of the new NHS contract in April 2006 may also produce different referral patterns overtime<sup>9</sup>.

#### **1.1.5 Obesity**

Obesity is an increasing problem both nationally and locally with 20% of men and women being obese (Health Survey for England). 1998 statistics shows 60% of men and nearly 75% of women in Torbay were not active at the desired level. Recognised barriers to physical activities are identified by PCT as including cost of and distance to facilities, safety concerns, street lighting, quality of parks and open spaces, and presence or absence of cycle routes and footpaths. Currently efforts are underway through the PCT to promote nutritional advice through the '5 a Day' concept, as well as a number of schemes for promoting physical activity such as the Fitbay scheme operating at Barton.

A National health survey in 2003 (all adults) sampled more than 14,000 adults nationally and calculated a prevalence for obesity of 22%. Records for prevalence in Torbay (age group 15-75) indicates that of those people's who's Body Mass Index (BMI) has been recorded in a 15 month period in 2004/2005, 27% had a BMI of 30 or greater (i.e. considered obese). This comparison raises concern over obesity in Torbay. A similar trend is arising for increasing obesity levels in children.

A national programme to weigh and measure primary school children in Year 6 and Reception has been repeated in 2007. The 2006 programme indicates that 26.8% of Torbay's children, in these year groups, were overweight, including obese and 12.9% were obese<sup>10</sup>. This was in line with national averages. The 2007 local results are currently being analysed.

<sup>8</sup> ONS, 2001 census

<sup>9</sup> Consultation and Research Team, Key Statistics for Torbay 2008

<sup>10</sup> Torbay PCT (2007) Director of Public Health Annual Report

There are recognised associated health risks with obesity including increase risks of premature morbidity and mortality, coronary heart disease, certain cancers and early signs of Type II diabetes.

### 1.1.6 Smoking

Smoking prevalence plays a significant role in the health of Torbay residents, causing 20% of all male deaths and 10% of female deaths between 1998 and 2002. Torbay has a higher estimated smoking prevalence of 28% compared to the estimated prevalence of 27% in England<sup>11</sup>. The ambition is to reduce smoking levels in the South West to equal the best in Europe and reduce smoking rates during pregnancy to a level which is half those of women in that age group in the general population of the South West.

There is also concern over the health risks of passive smoking. A Viewpoint Survey<sup>12</sup> indicated that 29.4% of people would be encouraged to visit pubs and nightclubs more if there were more non-smoking areas.

In 2006-07 Torbay PCT helped 817 to quit smoking against a target of 1030. 21.6% of women were smoking during pregnancy against a target of 20.9%. The current target for four-week quitters was originally set as 1,055 for 2007-08<sup>13</sup>. This target has been stretched as part of the Local Area Agreement (LAA) with Torbay Council to allow for an additional 25 quitters. Almost half of people in Torbay who set a quit date for smoking, were still not smoking at a four week follow up, compared to just over half for England. Table 1.3 shows the proportion of people who stop smoking in England, the South West and Torbay.

**Table 1.3: Proportion of people to stop smoking<sup>14</sup>**

Area	2004/05	2005/06	2006/07
England	51.14	54.69	53.25
South West	49.13	56.90	54.97
<b>Torbay</b>	<b>47.881</b>	<b>48.21</b>	<b>47.39</b>

### 1.1.7 Mental Health

The centre for Public Mental Health has compiled a Mental Illness Needs Index (MINI) for 2000 using deprivation and population data of those in the age ranges of 16-59. It shows Torbay has the highest level of mental illness needs in Devon, in particular the wards (under the old ward structure) of Coverdale, Tormohun and Torwood.

The latest health profiles for England use the prevalence of working age people with “severe mental illness who are in receipt of benefits for mental health conditions” as a proxy measure of levels of severe mental illness in the community. The latest values

<sup>11</sup> Smoking Epidemic in England, 2004

<sup>12</sup> Research Team, Torbay Council (2005) ‘Viewpoint 9’

<sup>13</sup> Torbay PCT (2007) Director of Public Health Annual Report

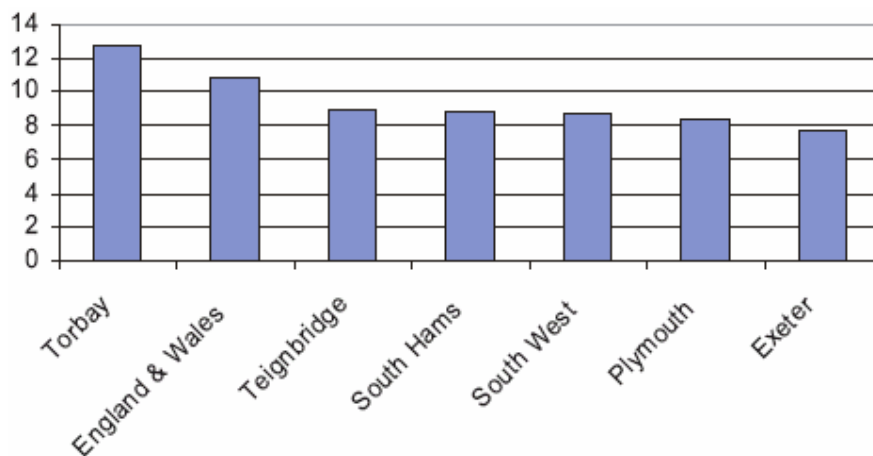
<sup>14</sup> Lifestyle Statistics IC NHS

for this measure show that, as at November 2006, more than 47 per 1,000 of the working age population in Torbay claim this benefit, compared to less than 30 per 1,000 nationally<sup>15</sup>.

Of particular concern is a recently identified trend (ONS May 2005 for years 2001 and 2002) which indicates that mortality from suicide in Torbay is significantly higher than England and South West values. This appears to be an emerging trend for seaside and countryside holiday destinations, which feature in 5 out of the 10 areas with the highest suicide rates. Torbay has the second highest rate in the country<sup>16</sup>.

### 1.1.8 Alcohol

The rate for alcohol related deaths in Torbay is slightly higher than national levels and significantly higher than the South West level. A large proportion of these deaths are concentrated in Roundham and Hyde and Wellswood and the majority are in the age group of over 50 years. Figure 1.4 shows the aggregated figures for 2001 to 2003 per 100,000 resident population shows Torbay to have a higher prevalence of alcohol related deaths compared to the England & Wales and local levels.



**Figure 1.4: Alcohol-related deaths per 100,000 resident population (2001-2003)<sup>17</sup>**

There are currently no specific national targets regarding the provision of interventions to support people with an alcohol problem. The cross-government Alcohol Harm Reduction Strategy for England recognised that the provision of alcohol treatment in England was patchy and that some areas were unable to provide the full range of support needed. This has been the case historically in Torbay which over the last five years has seen a rise in the number of alcohol related deaths; predominantly in males (see Figures 1.5 and 1.6 below).

<sup>15</sup> Torbay PCT (2007) Director of Public Health Annual Report

<sup>16</sup> Torbay PCT (2005) Director of Public Health Annual Report

<sup>17</sup> ONS, 2001 census

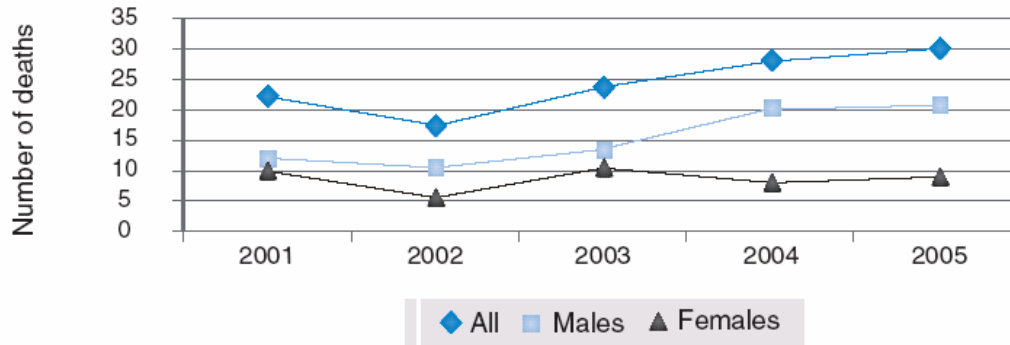


Figure 1.5: Torbay alcohol-related deaths by gender<sup>18</sup>

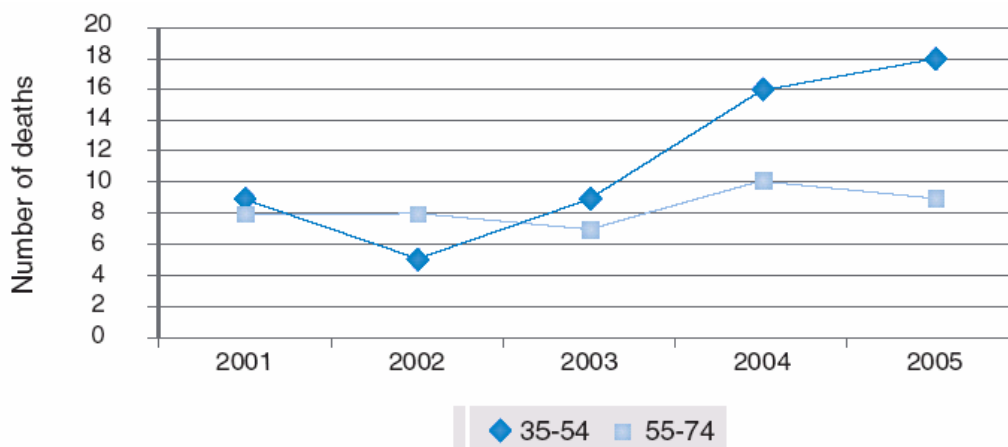


Figure 1.6: Torbay alcohol-related deaths by age group<sup>19</sup>

### 1.1.9 Teenage Conceptions

Conception rates for the under 18's have fluctuated in recent years, but the overall trend in Torbay is one of increase, both England & Wales and regional trends show progressive decrease. Torbay is required to reduce its teenage conception rate from 44.2 per 1,000 in 1998 to 22.1 per 1,000 in 2010<sup>20</sup>.

Torbay has seen an increase in the rate, rather than a decrease. The estimated figures for 2007 are not expected to show an improvement. In number terms, there were 122 conceptions in 2006 to girls under the age of 18. This included 20 to girls under the age of 16. The target number for conceptions in 2010 is 54<sup>21</sup>.

The pattern of conceptions is not the same across Torbay. There are hotspot wards, schools and GP surgeries. For wards, the highest rate and number is consistently Tormohun, usually followed by Ellacombe, Watcombe and Roundham with Hyde in Paignton. This correlates with areas of known deprivation<sup>22</sup>.

<sup>18</sup> Torbay PCT (2007) Director of Public Health Annual Report

<sup>19</sup> Ibid

<sup>20</sup> Torbay Reducing Teenage Conceptions Newsletter (2008)

<sup>21</sup> Ibid

<sup>22</sup> Torbay Reducing Teenage Conceptions Newsletter (2008)

### **1.1.10 Health Service Provision**

The standards of healthcare provision in Torbay are high as indicated by an NHS Performance Rating for 2006/07. This indicates that the Trust has achieved a high level of performance across a set of key targets relating to hospital performance and health care delivery, and a generally high level of access to quality services<sup>23</sup>.

The Strategic Service Development Plan<sup>24</sup> outlines a number of PCT priorities for investment in Torbay's healthcare. These include:

- Replacement of Brixham Hospital and clinic. There is a recognised need to improve the healthcare infrastructure of the South Devon Hospital which serves the Torbay area. The redevelopment of the existing site is required to provide intermediate care, improve waiting times and the potential to meet anticipated demands of new technology. The hospital has planning permission for redevelopment of a large proportion of the existing site to try and meet these changing demands.
- Reconfiguration of Fairweather Green at Paignton Hospital as an intermediate care facility.
- The development of an Integrated Care Facility in both Torquay and Paignton. These sites are designed to provide a one-stop shop for a range of health services addressing the problems of physical separation of related facilities. It also allows rationalisation of existing smaller sites.

Many forms of ill health are associated with deprivation as a result of insufficient health education, poor physical access and financial restraints. The Indices of Multiple Deprivation for Torbay (2007) highlight 7 areas which fall within the top 10% in England, with respect to health and disability. The proportion of Torbay total population living in these areas is 7.9%<sup>25</sup>.

Accessibility to health services is raised in the Primary Care Trust Strategic Service Development Plan (2004) as an issue in terms of physical access and local provision of services. This is especially problematic for the elderly and socially isolated and is exacerbated by the topography and lack of local General Practices serving new developments (e.g. Great Parks, Scotts Bridge and Chestnut Drive). This has resulted in accessibility to GP practices being dependent on private cars and taxis.

The South Devon Hospital at Torquay has a patient transport service for the elderly and mobility impaired however there is a need to increase the capacity of this service to reduce the number of patients left to make their own transport arrangements. There is also a need to improve accessibility of the hospital out of hours and at weekends, in particular through the development of a more direct and reliable public transport system.

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<sup>23</sup> Healthcare Commission annual health check 2007

<sup>24</sup> The Strategic Service Development Plan 2004- 2014, issue number 8

<sup>25</sup> The English Indices of Multiple Deprivation (2007) summary overview for Torbay



### 1.1.11 Road Traffic Accidents

The road accident rate for Torbay is lower than the rates per 100,000 residents than both the England and regional rates (Figure 1.7). Torbay Local Transport Plan 2006 indicates that the number of pedestrians killed or injured is low and remains well below the target set by the Department of Transport (DfT). The number of children killed or seriously injured has also decreased since 1999 and remains below DfT targets. These decreases are likely to be associated with a range of engineering measures, road safety and enforcement action for identified issues. This is supported by an increase in the number of schools implementing safer routes to school schemes which aim to improve pedestrian infrastructure especially new footpaths to link schools and their catchments.

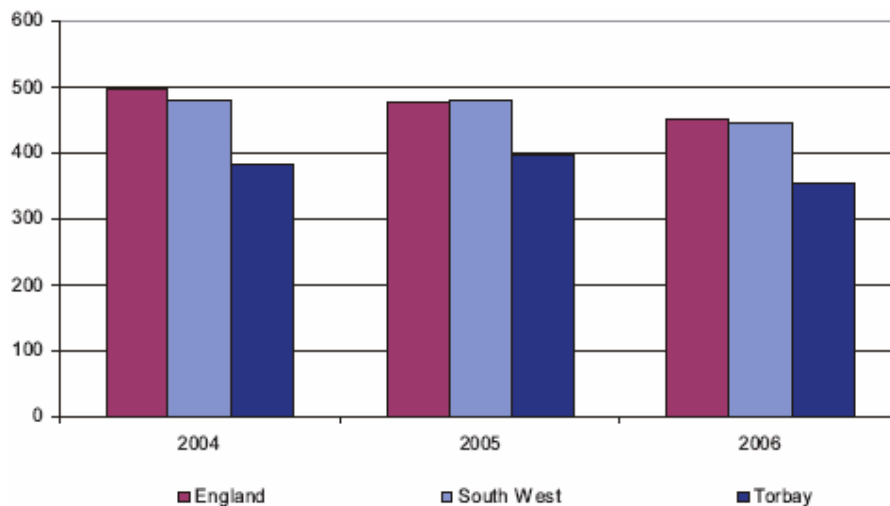


Figure 1.7: All casualties per 100,000 resident population<sup>26</sup>

### 1.1.12 Noise

There has been little detailed work carried out on noise levels in Torbay. However it is generally recognised that the main sources of ambient noise in Torbay are derived from two main sources:

- Traffic, particularly along main transport links and at rush hour times.
- Noise generated by Torbay's expanding evening economy. This source is concentrated where clusters of pubs and nightclubs exist, for example Torquay Harbour and Paignton seafront and train station. Noise levels become particularly elevated when nightclubs close, resulting in a sudden concentration of, often loud, young people on the street. This issue is raised in the General User Satisfaction Survey in which 50% of respondents felt that people being drunk or rowdy in public areas is a very big problem.

<sup>26</sup> DfT

## 1.2 Social Inclusion

### 1.2.1 Introduction

Social exclusion happens when people or places suffer from a series of problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime rate, ill health and family breakdown. When such problems combine they can create a vicious cycle. Social exclusion can happen as a result of problems that face one person in their life. But it can also start from birth, being born into poverty or to parents with low skills still has a major influence on future life chances. The English Indices of Deprivation 2007 (an update to the 2004 Indices) go some way to identifying hotspots of deprivation. The overall 'Index of Multiple Deprivation' is a model based on 7 domains covering the aforementioned social exclusion topics.

The English Indices of Deprivation 2007 (ID 2007) ranks Torbay as the 71<sup>st</sup> most deprived local authority in England for the rank of average score, far more deprived than 94<sup>th</sup> in the ID 2004 out of 354 authorities and the third most deprived Local Authority in the South West region compare to the 7<sup>th</sup> deprived in 2004<sup>27</sup>.

Torbay has seen an increase from 4 to 10 Super Output Areas (SOAs) in the top 10% most deprived in England. Table 1.5 shows Torbay population living in the top 10% most deprived in England. Almost 15,500 residents live within areas in the top 10% most deprived in England for the Index of Multiple Deprivation (IMD) 2007 ( see Figure 1.8); this represents 11.6% of the total population.

**Table 1.4: Torbay population living in the top 10% most deprived in England<sup>28</sup>**

Domain	Number of areas in Torbay in the top 10% most deprived in England	Total population of the areas	Proportion of Torbay total population living in top 10% most deprived
Index of Multiple Deprivation	10	15,466	11.6%
Income	6	9,088	6.8%
Employment	12	18,834	14.2%
Health and Disability	7	10,505	7.9%
Education, Skills and Training	4	6,100	4.6%
Barriers to Housing and Services	1	1,614	1.2%

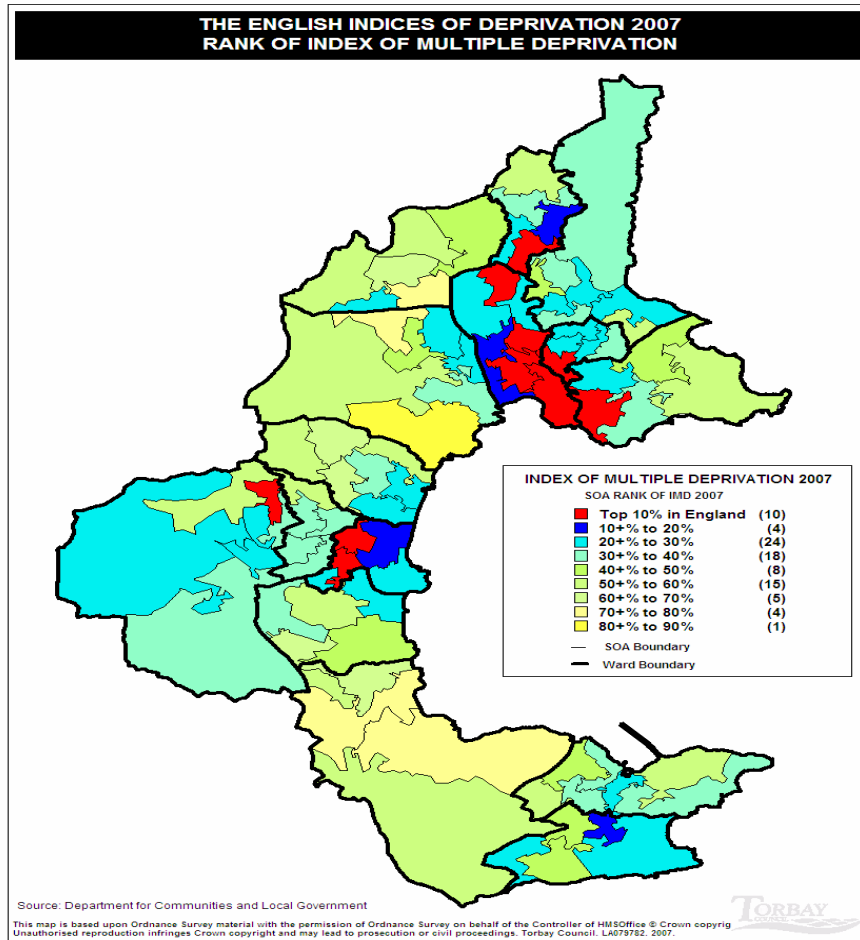
<sup>27</sup> The English Indices of Deprivation(2007) key findings for Torbay

<sup>28</sup> The English Indices of Deprivation(2007) key findings for Torbay

<b>Domain</b>	<b>Number of areas in Torbay in the top 10% most deprived in England</b>	<b>Total population of the areas</b>	<b>Proportion of Torbay total population living in top 10% most deprived</b>
Crime and Disorder	7	11,413	8.6%
Living Environment	17	26,075	19.6%
Income Deprivation Affecting Children	2	3,065	2.3%
Income Deprivation Affecting Older People	5	7,594	5.7%
Torbay Total SOAs and Total Population	89 SOAs	132,800	-

Torbay performs particularly poorly in terms of living environment deprivation and has relatively high income and employment deprivation, which reflect the high economic inactivity and benefits claimants within Torbay, together with low levels of household income. It is interesting to note that some SOAs in Torbay face multiple issues of deprivation and are consistently ranked in the top 10% most deprived SOAs in England against a number of the different domains. The most deprived SOAs are regularly located in the same wards, and particularly in Tormohun, Ellacombe, and Roundham with Hyde<sup>29</sup>.

<sup>29</sup> Torbay's Economic Regeneration Strategy (undated)



**Figure 1.8: IMD 2007 map for Torbay<sup>30</sup>**

### 1.2.2 Income

The overall levels of Income Deprivation in Torbay have increased slightly between 2004 and 2007, from 14 to 16 SOAs in the top 20% most deprived in England. However, 7.0% of the Torbay working age population lives within an area in the top 10% most income deprived in England (Table 1.6).

The level of children (0 to 15 year olds) in Torbay living in the top quartile most income deprived in England has dropped slightly from 5,900 to 5,500. While the number of people aged 65 and over in Torbay living in an area in the top 10% most deprived in England for income deprivation has increased by a third, to 1,354 in 2007.

<sup>30</sup> The English Indices of Deprivation(2007) key findings for Torbay

**Table 1.5: A comparison between 2004 and 2007 data<sup>31</sup>**

Top 10% in Torbay	ID 2004	ID 2007	2004 to 2007 Change	2007 % of Torbay Total
All People	9,152	9,088	-0.7%	6.8%
Age Groups				
0-15	2,313	2,184	-5.6%	9.5%
16-29	1,497	1,637	9.4%	8.6%
30-44	1,959	1,893	-3.4%	7.5%
45 to 64	1,901	1,755	-7.7%	5.8%
65+	1,482	1,619	9.2%	4.7%
Working Age	5,156	5,285	2.5%	7.0%

### 1.2.3 Employment

Torbay has many part – time, low paid employees, mostly working in tourism related jobs, or shops concentrated in the town centres. Semi skilled employment is concentrated around Brixham Harbour, an area west of Paignton and smaller employment areas within Paignton and Torquay. Professional and semi professional employment is concentrated around Torbay Council, South Devon College, Torbay Hospital and a small number of other employers.

15.2% of Torbay's working age population live in an area in the top 10% most employment deprived in England<sup>32</sup>. In term of access, for those using public transport cost has become a significant problem in terms of finding and attending employment. There is a need to provide direct bus links from the most deprived areas of Torbay to employment areas in Paignton. There is also a need for longer distance, direct bus services to the relatively remote western side of Paignton. Additionally 24 hour, 7 day per week bus services are required to service shift workers and those with early starts or late finishes.

### 1.2.4 Health and Disability

The overall levels of Health and Disability Deprivation in Torbay have increased noticeably between 2004 and 2007, with an increase from 0 to 7 SOAs in the top 10% most deprived in England. There has been an almost three fold in the number of residents living in the top 20% most deprived in Torbay and about four fold increase

<sup>31</sup> 2001 Census, ONS, 2005 Mid Year Estimates ONS

<sup>32</sup> The English Indices of Deprivation(2007) key findings for Torbay

in number of people aged 65 and over who are living in the top 20% most deprived in England<sup>33</sup>.

### 1.2.5 Education, Skills and Training

Compared to other regions the range and attainment of education of the population, both under and over 16 in the South West is good. However this regional data masks a number of disparities linked to socio-economic factors. Employer demand for skills in the region is low, offering unskilled and less productive employment.

Education in Torbay is provided through 33 primary schools, 3 special schools, 3 grammar schools, a bi-lateral secondary school, an ecumenical secondary school, three comprehensive schools and a college of further education. High quality education is essential in Torbay in order to provide opportunities for high income levels and diversification and improvement to the local economy. Generally Torbay imports pupils from surrounding areas because of the quality and diversity of provision and its large rural catchment.

The overall levels of Education, Skills and Training Deprivation in Torbay have increased slightly between 2004 and 2007, with an increase from 3 to 4 SOAs in the top 10% most deprived in England<sup>34</sup>. With the population structure in Torbay having a bias towards the older population, the proportion of young people is slightly lower than both the regional and England & Wales proportions.

Figure 1.9 shows that over the last three years, the rate of pupils aged 11 attaining level 4+ in key stage 2 in English or Maths have been slightly lower than both that of the England and regional rates. Over half of pupils in Torbay achieved 5+ A\* - C grades in their GCSEs in 06/07, with a similar gender difference to that of the both the England and regional figures (Figure 1.10).

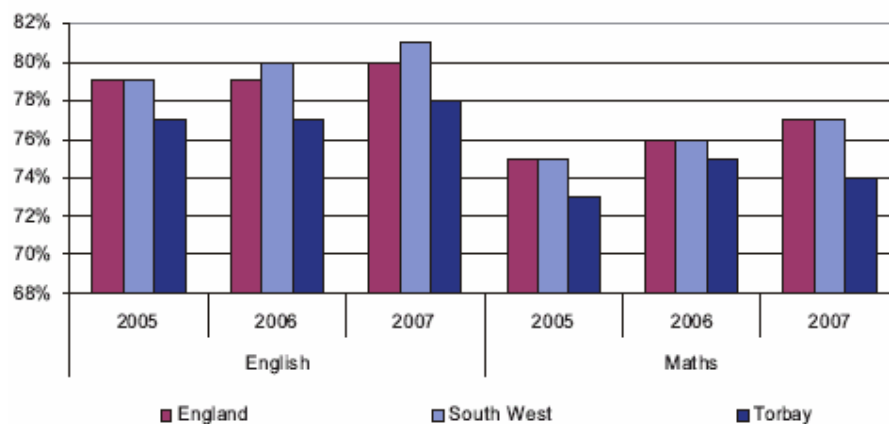
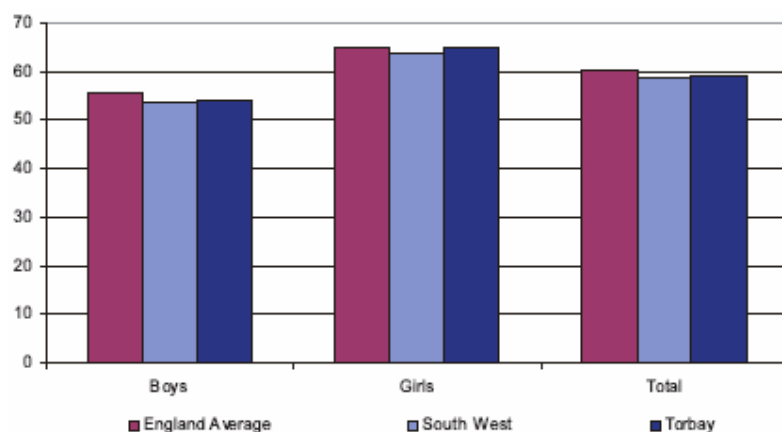


Figure 1.9: Percentage of pupils achieving level 4+ in key stages 2 tests<sup>35</sup>

<sup>33</sup> Torbay's Economic Regeneration Strategy (undated)

<sup>34</sup> The English Indices of Deprivation(2007) key findings for Torbay

<sup>35</sup> DfES



**Figure 1.10: Percentage of 15 year olds achieving 5+ A\* - C grads<sup>36</sup>**

Torbay has historically suffered from ‘brain drain’ due to low earnings in the area; students who attend university rarely return to the area. The success rates for students aged 16 to 18 undertaking further education in Torbay are just below the England average for success, retention and achievement rates. Information from the Learning and Skills Council shows Torbay to have the lowest success rate in the South West Region for persons aged 19 and over undertaking work based learning. Work based learning is training undertaken in the workplace or simulated work environment which may include structured training and/or assessments.

### 1.2.6 Barrier to Housing and Services

The overall levels of Barriers to Housing and Services Deprivation in Torbay have increased slightly between 2004 and 2007, with an increase from 5 to 8 SOAs in the top 20% most deprived in England.

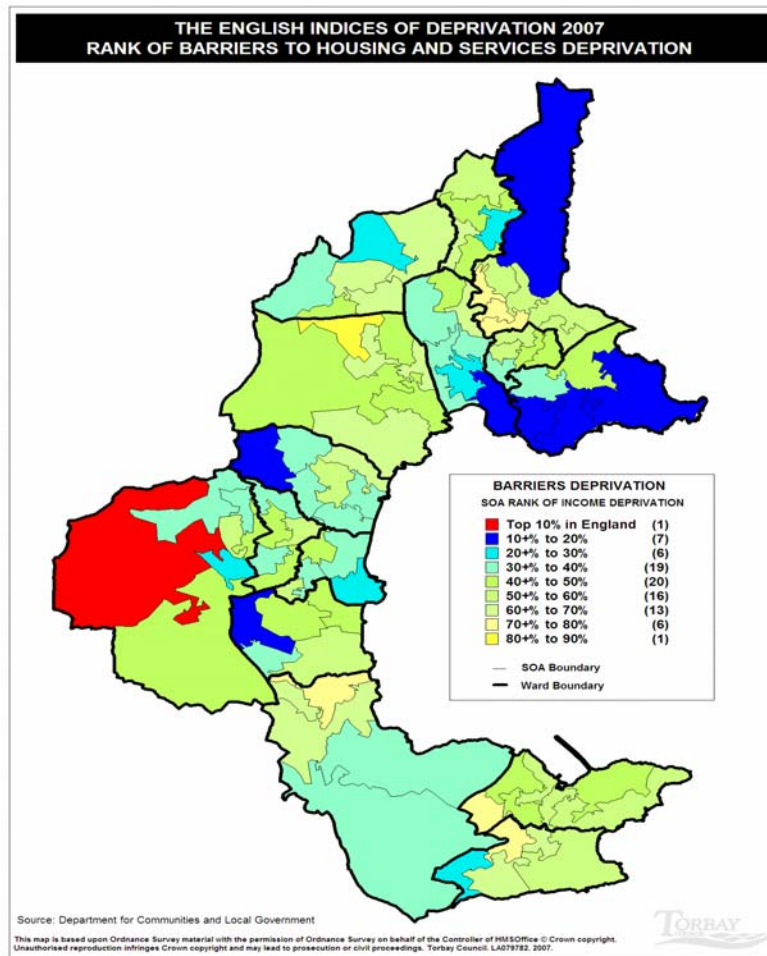
Figure 1.11 shows rank of barriers to housing and services deprivation in Torbay’s wards. Blatchcombe is among the 10% most deprived in England where 1.2% of Torbay’s population lives. Seven wards are among the 20% most deprived in England; these are Blatchcombe, Wellswood, St Marycharch, Tormohun, Preston and Goodrington with Roseland<sup>37</sup>.

Torbay has a very serious need for affordable housing. The Joseph Rowntree Foundation report ‘Can Work, Can’t Buy’ (Wilcox 2004) found that Torbay is the 13<sup>th</sup> least affordable area in the country for first time buyers under 40 years old. In Torbay, average house prices are over 9 times average earnings, compared to a national ratio of about 7 times and South West ratio of just under 9 times. Although the gap has narrowed from over 11 times in 2005, the affordability gap is still very large. The ratio of lower quartile property prices to lower quartile earnings is over 18 times, indicating severe unaffordability at the lower end of the market<sup>38</sup>.

<sup>36</sup> DfES

<sup>37</sup> The English Indices of Deprivation(2007) key findings for Torbay

<sup>38</sup> Torbay Housing Land Monitor 2008



**Figure 1.11: Rank of barriers to housing and services deprivation<sup>39</sup>**

Homelessness is also an important issue in Torbay with the total number of households accepted as homeless and in priority need during the year 1999/2000 rising from of 185 to 339 in 2002/2003. A snapshot taken in March 2004 revealed 438 households living in temporary accommodation. There are obviously social implications of families being placed in temporary accommodation (holiday flats and B&B) and the financial cost of approximately £910,000 per year. Due to the social implications for the homeless of housing people in bed and breakfast accommodation there is a marked push by the Housing Services of Torbay Council to reduce their use and provide alternative forms of accommodation.

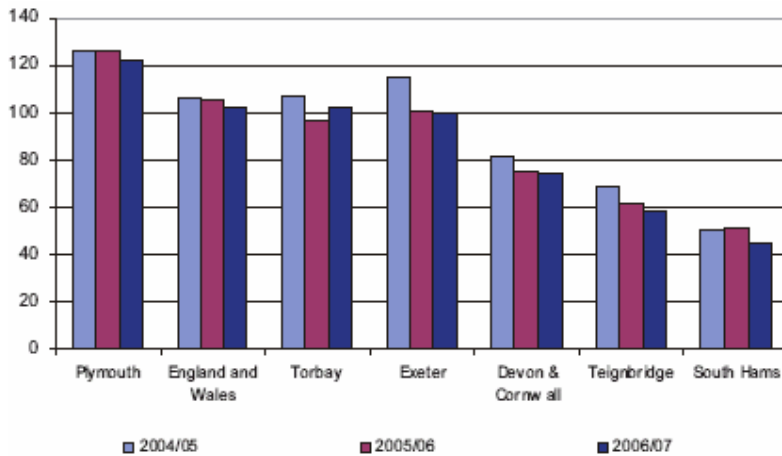
### 1.2.7 Crime and Disorder

Recorded offences in England and Wales decreased by 2.0% over 2005/06 to 2006/07. In Torbay the total number of recorded offences increased by 5.8% from 12,806 to 13,554 over the same period. Torbay's total number of recorded offences per 1000 resident population is around 100- below England and Wales rate. Figure

<sup>39</sup> The English Indices of Deprivation(2007) key findings for Torbay

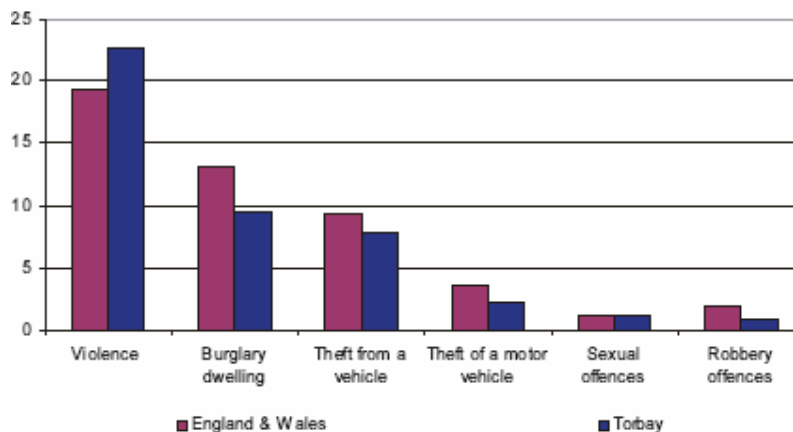


1.12 shows Torbay figures from 2004 to 2007, compared to national data and neighbouring authorities<sup>40</sup>.



**Figure 1.12: Total recorded offences per a 1,000 resident population<sup>41</sup>**

When recorded offences are broken down by category, recorded crime in Torbay is predominantly below the national average, with the exception of violence related offences, as shown in Figure 1.13. However, there has been a decrease in recorded violence related offences in Torbay from 2004 to 2007, as shown in Figure 1.14.



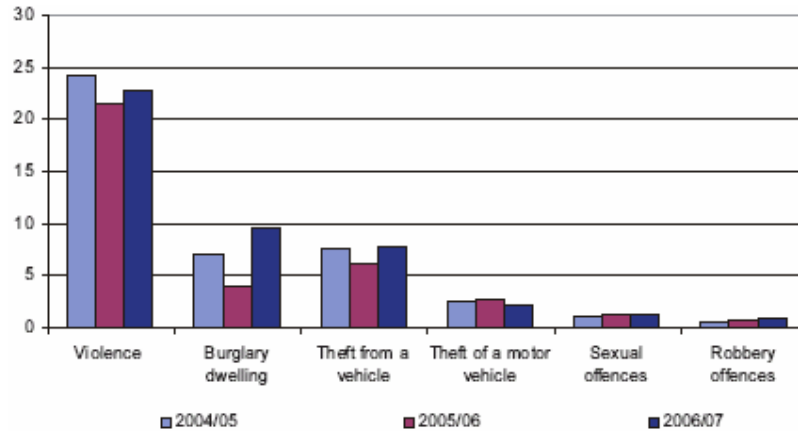
**Figure 1.13: Recorded number of offences per 1,000 resident population 2006/07**

Fear of crime in Torbay is a significant issue. Fear of crime survey were carried out in 2006 and the fear of crime was identified as reasonably high with as many as 55.6% of respondents believe that there is more crime in Torbay now compare to three years ago. Particular issues which were highlighted as of concern include people being drunk/ rowdy in public places, safety of young children, rubbish lying around, vandalism and misuse of drugs.

<sup>40</sup> Consultation and Research Team, Key Statistics for Torbay 2008

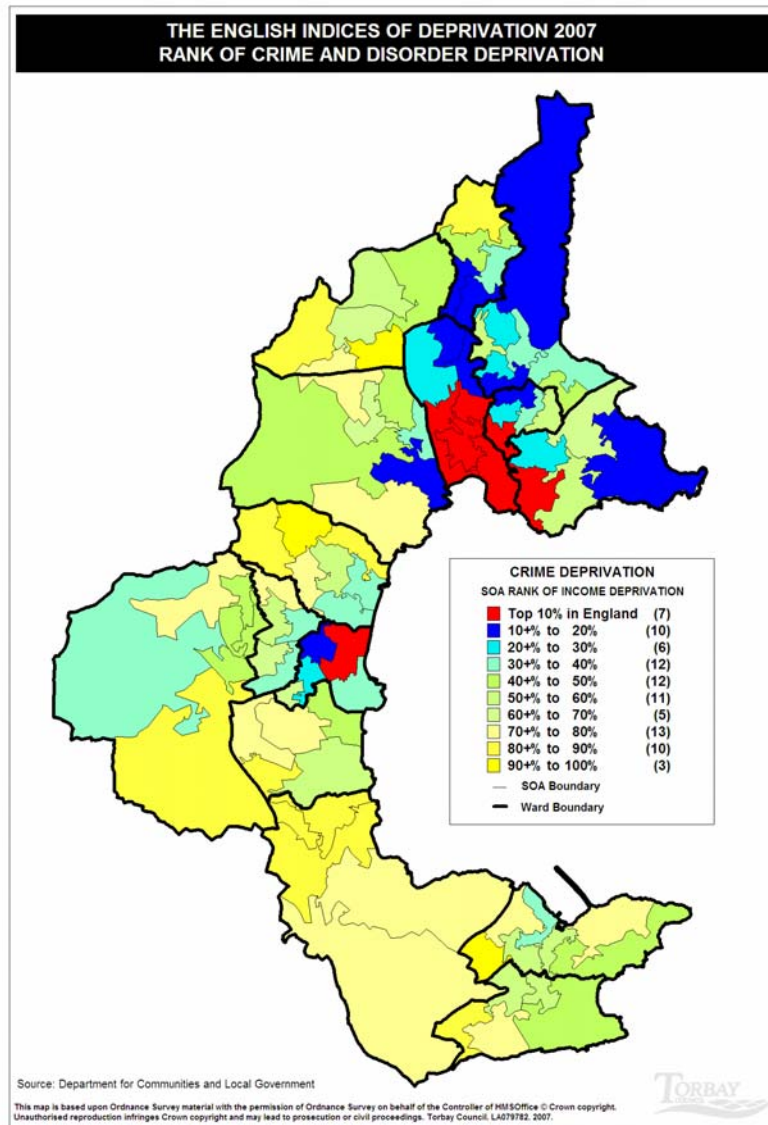
<sup>41</sup> the Home Office

It is essential to address fear of crime in order to increase the number of people walking, cycling and using public transport. The key issues therefore are: to provide increased security for bus users, both on buses and at bus stops; to reduce antisocial behaviour on streets and at bus stops; to improve the perception of personal safety by improved street lighting, CCTV and better design of open spaces.



**Figure 1.14: Recorded number of offences per 1,000 resident population in Torbay per year**

The Indices of Deprivation for Crime and Disorder are broken down into Super Output Areas and account for burglary, theft, criminal damage and violence. The overall levels of Crime and Disorder Deprivation in Torbay have increased noticeably between 2004 and 2007, with an increase from 4 to 7 SOAs in the top 10% most deprived in England, with 8.6% of Torbay residents living in these areas. Figure 1.15 shows that 10 wards are in the 20% most deprived in England for crime and disorder.



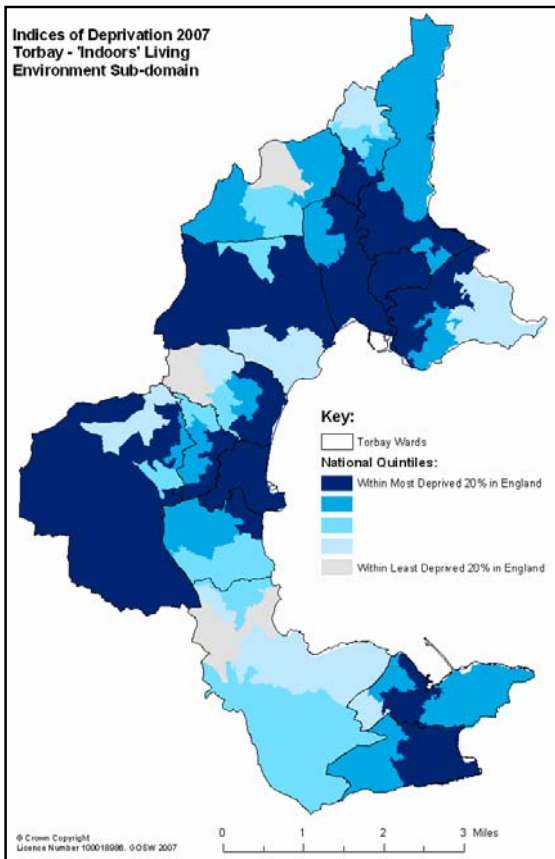
**Figure 1.15 Rank of crime and disorder deprivation for Torbay<sup>42</sup>**

### 1.2.8 Living Environment

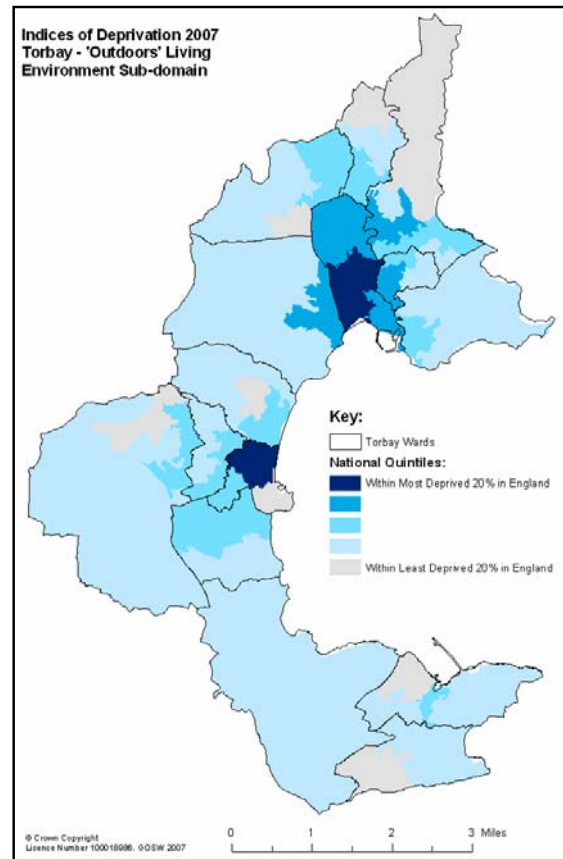
Deprivation relating to the living environment in Torbay is almost entirely due to the condition of housing. Over a third of Torbay's SOAs are within the most deprived 10% in England in the indoors living environment. Indicators measure indoors living environment are social and private housing in poor condition and houses without central heating. Figure 1.15 and 1.16 show both indoors and outdoors living environment deprivation in Torbay<sup>43</sup>. Around 20% of Torbay's population (26,000); live in an area in the top 10% most deprived in England for living environment deprivation.

<sup>42</sup> The English Indices of Deprivation(2007) key findings for Torbay

<sup>43</sup> GOSW Regional Intelligence Team, Indicators of Deprivation 2007- Torbay summary



**Figure 1.16: Indoors Living Environment relating to housing in poor condition and without central heating**



**Figure 1.17: Outdoors living environment relating to air quality and road accidents**

## 1.3 Material Assets

### 1.3.1 Introduction

Torbay has a very pressing need for affordable housing, in common with much of the South West. Torbay Housing Market Assessment<sup>44</sup> has examined housing requirements on a sub-regional basis, including the Exeter and Torbay housing market areas. A 5-yearly requirement for 4,087 dwelling was identified in Torbay Unitary Authority area, equal to 820 dwellings per year. Of this requirement, 49.4% was for social housing, 11.7% for intermediate housing and 38.9% for market housing. The HMA finds that there is a need for 4700 additional dwellings over 5 years, equal to 950 dwellings per year in the Torbay Housing Market Area. The Torbay Housing Market Area extends slightly beyond Torbay Unitary Authority boundaries.

Torbay Housing Needs Survey (Fordham Research 2003) has indicated a very high need for affordable housing. The headline housing need survey figure was for 1816 affordable dwellings per year of which 1362 should be for rent. The Housing Needs Survey also carried out a ‘balancing housing markets’ analysis, which is similar in its approach to a housing market assessment. This found that if around 540 dwellings were built per year, there would be a yearly shortfall of around 950 affordable homes.

Torbay Strategic Housing Land Availability Assessment (SHLAA) has considered the issue from an employment-led approach. It aims to maximise the balance between jobs and homes and makes provision for the required numbers of homes to support Torbay in realising its economic potential. The projections estimate 15,000-17,000 new dwellings are required to support the economy in reaching its full potential. Table 1.7 shows the summary of the SHLAA findings.

**Table 1.6: Summary of SHLAA findings<sup>45</sup>**

Source of housing potential	2006 - 08	2008 - 13	2013 - 18	2018 - 26	2006 - 26
<b>Completions</b>					
2006/07	519				<b>519</b>
2007/08	727				<b>727</b>
<b>Sites with planning permission</b>					
Large sites		1258			<b>1258</b>
Small sites		482			<b>482</b>
<b>Site specific sources</b>					
Large sites		1228	1662	814	<b>3704</b>
<b>Non site specific sources (windfall)</b>					
Large sites				1000	<b>1000</b>
Small sites				650	<b>650</b>
<b>Broad Locations</b>					
Conservation areas					<b>0</b>
Holiday Parks			300	700	<b>1000</b>
Holiday accommodation			180	100	<b>280</b>

<sup>44</sup> ORS 2007

<sup>45</sup> Torbay SHLAA , Summary of Findings, 2008

Mayor Vision sites			300	700	<b>1000</b>
Land adjoining settlements			2000	3475	<b>5475</b>
<b>Total housing</b>	<b>1246</b>	<b>2968</b>	<b>4442</b>	<b>7439</b>	<b>16095</b>
<b>Average per annum</b>	<b>623</b>	<b>594</b>	<b>888</b>	<b>930</b>	<b>805</b>

### 1.3.1 House price affordability

In Torbay house prices are around the national average. However, the low wage nature of the economy introduces severe affordability problems. In 2005/2006, house prices in Torbay peaked at over 11 times average earnings, compared to 10 times in the South West and 8.5 in the UK. The ratio of lower quartile property prices to lower quartile earnings was over 17 times, indicating severe unaffordability at the lower end of the market. The slowdown in the housing market in 2007/08 has reduced this affordability gap a little, as set out in Table 1.8. Ratios of more than 3.5 indicate unaffordability and therefore a very significant gap between incomes and house prices remains. Moreover, credit is likely to be less available following the crisis in the American Sub-Prime Market in 2008.

**Table 1.7: Average house price affordability<sup>46</sup>**

Area	Average gross Pay	Average house price	Affordability ratio (House price/income)
England	£23,756	199,184	78.4
South West	£20,754	195,496	9.9
<b>Torbay</b>	<b>£16,963</b>	<b>181,931</b>	<b>10.7</b>

### 1.3.2 Social Rented Housing

Historically Torbay has had a low stock of social rented housing, although the gap with the national average has narrowed slightly in recent years. In February 2008 there were 5112 households in housing need on the 'Homefinder Torbay' waiting list, and 470 households on the Home 2 Own shared ownership waiting list. Torbay has a lower than national average owner occupation rate (although within this there is a higher than national average rate of outright ownership), a larger than average private rented sector and a very low level of intermediate home ownership (see Table 1.9).

**Table 1.8: Tenure in Torbay<sup>47</sup>**

Area	Outright owners	Own with mortgage	Intermediate homeownership	Rent privately	Rent from Council
England	37%	35.5%	1%	17.8%	8.2%
South West	34.1%	38.4%	0.6%	13.5%	13.5%
<b>Torbay</b>	<b>29%</b>	<b>38.8%</b>	<b>2.2%</b>	<b>12%</b>	<b>19%</b>

<sup>46</sup> Planning Contribution and Affordable Housing SPD 2007

<sup>47</sup> Ibid

## 2. Economic Characteristics

This section discusses and provides statistics of the SEA topics relevant to economic development, energy and transport.

### 2.1 Economic Development

#### 2.1.1 Introduction

The economic prosperity of Torbay is the main drive for the Local Authority and is also at the heart of the new Community Plan. The focus on economic prosperity is to deliver community prosperity through four themed areas – the model is shown in Figure 2.1 below.

In spite of its traditional prosperous image Torbay has some serious economic problems. The economy of Torbay is largely dependent upon the Tourism Industry, sectors of which, such as long stay resort tourism, are in decline. This has led to a largely seasonal, low wage economy. Torbay has one of the lowest levels of income and economic output measured in Gross Value Added (GVA) per head both nationally and regionally. Unemployment although low in line with the general economy of the UK is still above the national average.

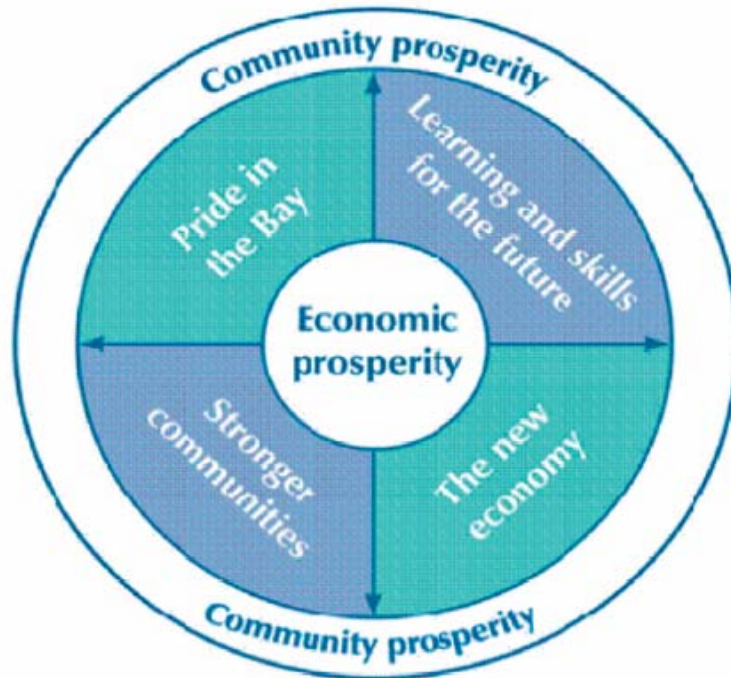
In 2007 gross average annual pay per employee in Torbay was £19,012, only 86% of the South West and 75% of the England and Wales gross average income (see Table 2.1). The issue of low income levels has also been highlighted in a Viewpoint Survey in 2004 in which 67.7% of respondents felt that wage levels and local cost of living had got worse over the preceding 3 years.

**Table 2.1: Average gross pay for all employee jobs<sup>48</sup>**

Area	Annual pay	Weekly pay	% of earning under £250 p/week
England & Wales	£ 25,284	£ 456.6	28.1%
South West	£ 22,072	£ 408.1	31.4%
<b>Torbay</b>	<b>£19,012</b>	<b>£ 336.1</b>	<b>44.15%</b>

<sup>48</sup> Consultation and Research Team, Key Statistics for Torbay 2008





**Figure 2.1: The Economic Prosperity Model**

In 2003 the Torbay Development Agency (TDA) was created to promote economic diversification and regeneration. The agency embodied the tourism, marketing and economic regeneration activities previously provided by the former Strategic Services Directorate. Regeneration priorities include job creation; start up of businesses and training, as well as a capital programme to regenerate the built environment.

The Torbay Employment Land Monitor 2008 indicates that 1.2 hectares of employment land were completed in the financial year 2007/08 compared to 0.17 ha and 2 ha in 2005/2006<sup>49</sup>. However, 4.39 ha of land were under construction at April 2007. This should lead to an increased completion figure for the next year.

Torbay has a higher than average rate of business start ups resulting in a net increase in businesses of 40 in 2006<sup>50</sup>. This indicates a good level of entrepreneurship and economic health for the business population. Reducing the rate of business closures is an important way of increasing economic activity in Torbay.

The number of VAT registered businesses in Torbay is increasing gradually following a dip in the late 1990s; levels are not as high as they were but are increasing. There was an increase in the hotels and restaurants classification nationally, and Torbay had a higher than national increase in this area between the start of year stock for 2005 compared to the start of year stock for 2006 details on the industry sector change can be seen in Table 2.2 below<sup>51</sup>.

<sup>49</sup> Torbay Employment Land Monitor 2008

<sup>50</sup> Consultation and Research Team, Key Statistics for Torbay 2008

<sup>51</sup> Consultation and Research Team, the Torbay Economy 2007



**Table 2.2: The number of VAT registered business in Torbay**

VAT Start year stock	Torbay		Change		
	2005	2006	England & Wales	South West	Torbay
Agriculture and forestry; Fishing	100	95	-1.5%	-1.8%	-5.0
Mining and quarrying; electricity, gas and water supply	0	0	-1.2%	0.0%	0.0%
Manufacturing	230	230	-1.6%	-1.2%	0.0%
Construction	500	515	2.8%	1.4%	1.2%
Wholesale, retail and repairs	865	875	1.2%	1.4%	1.2%
Hotels and restaurants	510	535	3.5%	3.3%	4.9%
Transport, storage and communication	115	120	2.3%	2.2%	4.3%
Financial intermediation	10	10	0.7%	1.4%	0.0%
Real estate, renting and business activities	695	685	2.5%	2.6%	-1.4
Public administration; Other community, social and personal services	245	240	-0.9%	-1.0%	-2.0%
Education; Health and social work	70	70	2.4%	1.6%	0.0%
Total	3,340	3,375	1.4%	1.3%	1.0%

### 2.1.2 Economic Output

Torbay's economy was worth around £1,400 million in 2004, up 5.5% from £1,327 million in 2003. However, the proportionate share of the South West economy is declining steadily from 2.3% in the mid 1990's to 1.7% in 2004.

Official figures show Torbay to be the lowest performing economy in the country. Since 1995 the average annual growth has only increased by around 2.1% per year in Torbay compared to 6.5% nationally. The Growth in Torbay from 1995 to 2004 for the headline gross value added at today's prices is the lowest growth in the UK, at just 18.7% compared to the national figure of 58.1%<sup>52</sup>.

Torbay's 2004 headline gross value added (GVA) per head figure is the third lowest in England behind Wirral and the Isle of Wight, and is also the 6<sup>th</sup> lowest in the United Kingdom. Table 2.3 below gives detail on the Headline GVA per head by Unitary Authority (NUTS3) area at current basic prices 1995 to 2004, with a comparative net change in GVA for the period.

<sup>52</sup> Consultation and Research Team, the Torbay Economy 2007

**Table 2.3: Economic Output GVA per head<sup>53</sup>**

GVA per head	1995	2003	2004	1995-04 changes
Torbay	£ 8,895	£ 10,111	£ 10,562	18.7%
Cornwall & Isle of Scilly	£ 6,677	£ 10,478	£ 11,094	66.2%
Devon CC	£ 9,038	£ 12,744	£ 13,363	47.9%
Plymouth	£10,037	£13,729	£ 14,327	42.8%
South West	£ 9,987	£ 15,276	£ 16,141	61.6%
UK	£ 11,037	£ 16,549	£ 17,451	58.1%

Table 2.4 below illustrates the economic output of the main sectors in 2004. Almost 80% of Torbay's economy drives from service activities.

**Table 2.4: The headline GVA by three industries in 2004<sup>54</sup>**

GVA by 3 industries 2004	Torbay		South West	England & Wales
	£ million sector worth	Sector share		
Agriculture, hunting and forestry	8	0.6%	1.9%	0.9%
Industry, including energy and construction	281	20.1%	24.1%	22.4%
Service activities	1,111	79.4%	76.7%	76.7%

### 2.1.3 Employment Structure

Employment in Torbay generally takes 3 forms<sup>55</sup>:

- Professional and semi-professional employment mainly concentrated on a relatively small number of employers, including Torbay Council, South Devon College, Torbay Hospital and a couple of smaller research facilities;
- Low paid and often part time employment in the service sector (including shops and tourist facilities), mainly concentrated in the three town centres, but including significant out of town shops; and
- Semi-skilled employment concentrated upon Brixham harbour, the area to the west of Paignton, and a number of smaller employment areas in Torquay and Paignton.

Torbay has a lower than England and Wales average proportion of fulltime workers and a higher rate of part-time workers in employment (see Table 2.5)<sup>56</sup>.

<sup>53</sup> Consultation and Research Team, the Torbay Economy 2007

<sup>54</sup> Ibid

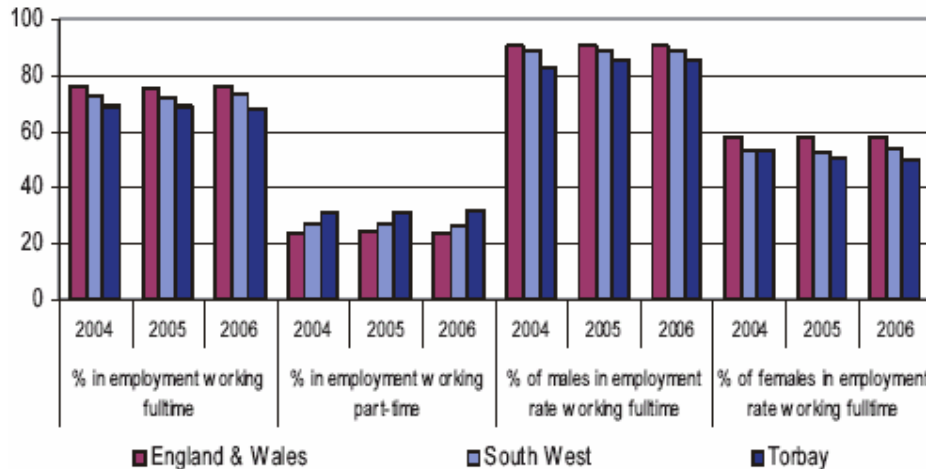
<sup>55</sup> Torbay Local Transport Plan 2006-2011

<sup>56</sup> Consultation and Research Team, Key Statistics for Torbay 2008

**Table 2.5: Percentage of working age population in employment**

Area	Full-time workers	Part-time workers
England and Wales	76.0%	23.9%
South West	72.9%	27.0%
<b>Torbay</b>	<b>69.0%</b>	<b>31.0%</b>

Figure 2.2 shows the proportions of employees working full or part time have remained pretty constant over the last three years, with just over 80% of males of working age in employment working full time, compared to around 50% for females.



**Figure 2.2: Annual population survey employees by type<sup>57</sup>**

The diagram in Figure 2.3 shows more than one thirds of Torbay’s jobs are in the distribution, hotels & restaurants sector (35%) compares to 24% in England and 26% in the South West. The second largest sector is public admin, education & health (33%) in comparison to 26%, in England and 29% in the South West. All other sectors are smaller than across England as a whole.

<sup>57</sup> Consultation and Research Team, Key Statistics for Torbay 2008

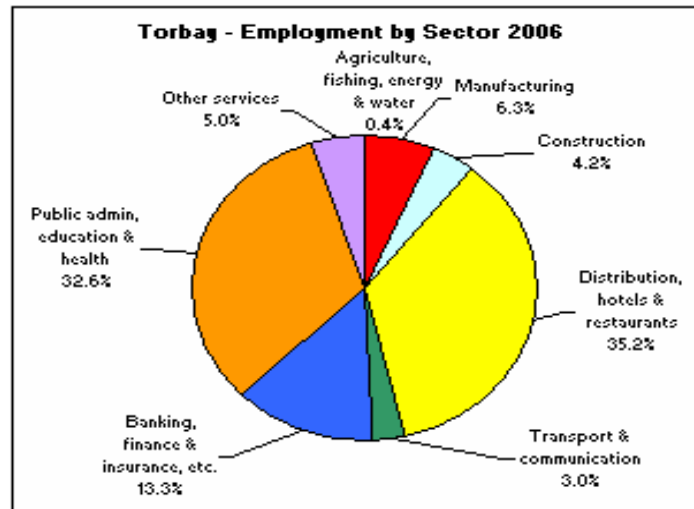


Figure 2.3: Employment by sector 2006<sup>58</sup>

Figure 2.4 demonstrates the proportions of each socio-economic group within Torbay. The largest sectors, apart from those that were unclassifiable, were: lower managerial/professional occupations and semi-routine occupations. Small employers/own account workers (this group mainly contains the self-employed) and routine occupations are also significantly large groups. The retired and those looking after a home, training schemes, sick or disabled are classified according to their former occupations. The relatively small proportion of higher professional occupations would accord with the trend for the South West as a whole to be a net exporter of graduates.

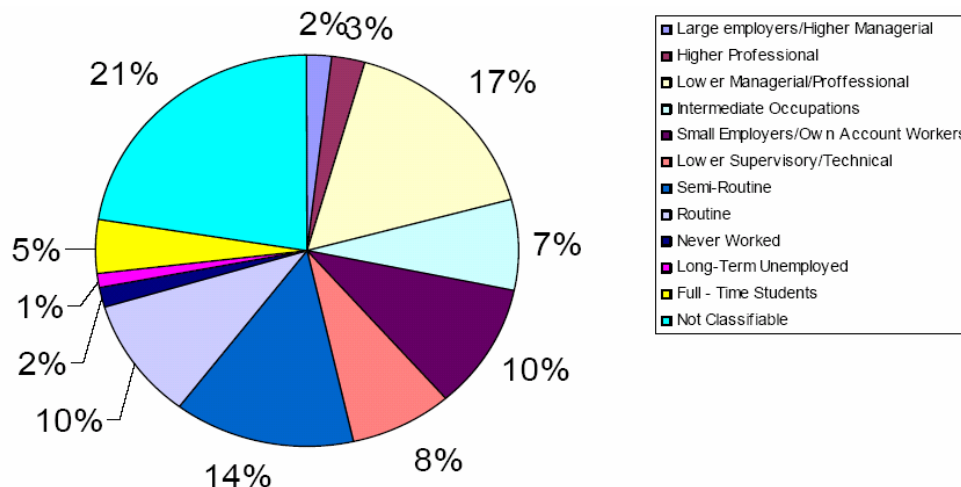


Figure 2.4: Socio-Economic classification of those aged 16 to 74 in Torbay

Tables 2.6 and 2.7 show projected growth by sector in Torbay to 2026. The predictions show that although health and retailing make significant contributions to new jobs, electronics contributes over twice as much to GVA (and 2-3 times on a per

<sup>58</sup> Consultation and Research Team, Torbay Brief 2008

capita basis) than service industry jobs. This demonstrates the need for economic diversification beyond traditional tourism related jobs.

**Table 2.6: Top Ten Growth Sectors by Jobs Created<sup>59</sup>**

Rank	Sector	Jobs	Rank by GVA
1	Health/ Social Service	1,912	2
2	Retail	1134	3
3	computing services	716	7
4	Education	694	8
5	Other business services	669	10
6	Professional services	535	13
7	Distribution	476	6
8	Misc. services	462	12
9	Hotels and catering	346	9
10	Electronics	248	1
<b>Total jobs</b>		<b>5961</b>	

**Table 2.7: Top Ten Growth Sectors by Gross Value Added 2006-2026<sup>60</sup>**

Rank (by GVA)		Growth in GVA (£Million)	GVA per capita (Million)	Rank by job created
1	Electronics	301	1.2137	10
2	Health/social and services	145	0.0758	1
3	Retail	81	0.0714	2
4	Communication	78	Not possible to calculate	45
5	Construction	69	0.377	11
6	Distribution	63	0.132	7
7	Computing services	57	0.0796	3
8	education	65	0.08069	4
9	Hotels and catering	55	0.1589	9
10	Business services	43	0.0642	5

### 2.1.4 Unemployment

Unemployment in Torbay is perceived to be a real problem with almost a quarter of the working age population classified as economically inactive (see Figure 2.8). However, figures from the annual population survey show that despite a large proportion of economically inactive residents, a higher than national proportion do want a job and thus the proportion of working age residents who are economically

<sup>59</sup> Consultation and Research Team, Torbay Brief 2008

<sup>60</sup> Cambridge Econometrics Model, provided by South West Regional Assembly 2004

inactive and not wanting a job is more or less inline with the regional figure and slightly below the national.

**Table 2.8: Unemployment rate<sup>61</sup>**

Area	% Unemployment	Male	Female
England	5.5	4.27	2.45
South West	4.0	3.15	2.00
<b>Torbay</b>	<b>5.2</b>	<b>5.43</b>	<b>2.93</b>

In order to alleviate this situation The Council has undertaken several successful initiatives since the early 1980s. The Cockington Centre has been developed to promote rural skills, Brixham Fish Quay has been redeveloped and there have been marina developments at Torquay and Brixham. Industrial estates have also been developed at Broomhill Way and Chatto Road in Torquay and at Yalberton, Kemmings Close and Long Road in Paignton. The first phase of a regeneration programme at Torquay Harbour side and Waterfront has been completed and major regeneration schemes are proposed in Brixham.

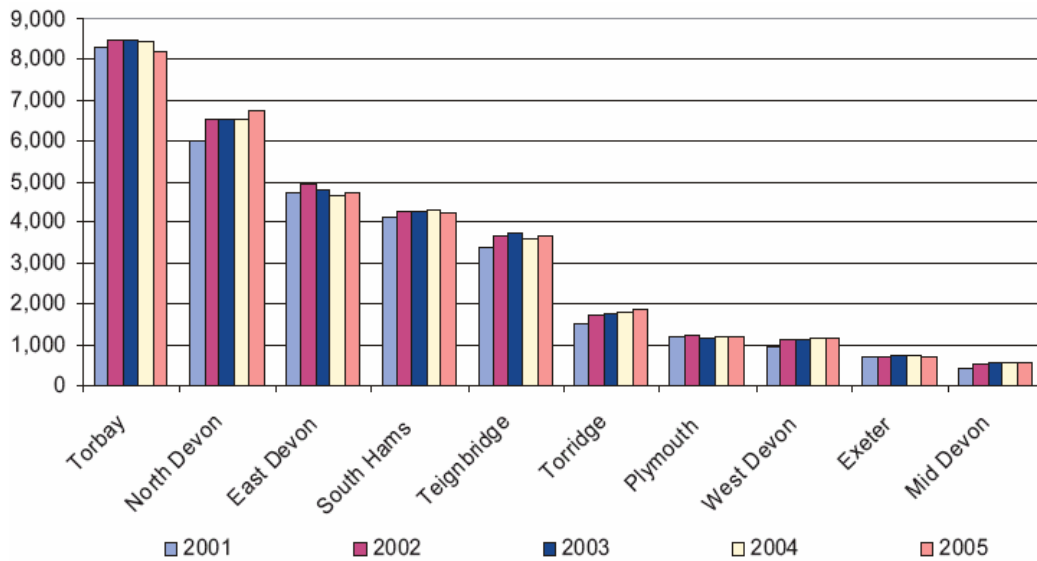
### 2.1.5 Tourism

Marketed as the English Riviera, Torbay is the premier tourist resort in the UK, with attractions including: Quay West water park; Kents Cavern; Paignton Zoo; a steam railway; picturesque harbours; a model village; 18 beaches; waterfront gardens and country parks.

Tourism has been the mainstay of the Torbay economy since the mid nineteenth century. Tourism in Torbay reached its peak in the mid 1970s, showed a sharp downturn in the 1980s and showed a slow and steady decline from the 1990s onward. The main reasons for the steady decline are: changes in public attitude towards traditional seaside holidays; unpredictable British weather; overseas competition from package holidays; and a transition towards long haul and exotic holidays.

In recent years the overall number of tourist nights has decreased from a recent high in 2002 of 8,493,000 down to 8,171,000 in 2005, a drop of 1.9%. The trend over the last few years does show a general decline for Torbay, this compares to a more general increase for Devon as a whole, with North Devon seeing a marked increase in the total number of tourist bed nights. Figure 2.5 shows Torbay's market share of tourist nights has dropped in recent years; however Torbay still accounts for around 25% of all bed nights in Devon annually.

<sup>61</sup> ONS worklessness summary statistics 2008



**Figure 2.5: Tourist night by district ('000s)<sup>62</sup>**

At present tourism in Torbay accounts for around 1.45 million staying visitors and 3.8 million day visitors, generating a direct and indirect spend of £442 million per annum and representing one third of the area's wealth and one third of the areas employment<sup>63</sup>.

The most up-to-date data available shows that Torquay, Paignton and Brixham have a combined bed-space capacity of 51,510 within all forms of holiday accommodation<sup>64</sup>. This is the highest level of all resorts in Devon, and is clearly necessary to accommodate the large numbers of tourists coming to the Bay. The popularity of this area as a holiday destination is confirmed by reports that Devon and Cornwall brought in 6.3 million visitors compared with 5.8 million for Spanish Costa and 4 million to the Canary Islands. However, 2004 noted mixed fortunes for those in the tourist industry, with many observing a downturn in visitor numbers compared to previous years as a result of poor weather and a slowing economy<sup>65</sup>. Security threats at airports and summer heatwaves are said to have saved Torbay from an otherwise dismal tourist season during 2006, with suggestions that the resort can no longer rely on the summer season to survive.

### 2.1.6 Manufacturing

Between 1991 and 1997 manufacturing was of increasing importance to the economy of Torbay. During this time there was a 60% growth in manufacturing, mostly in full-time employment and its contribution to GDP in Torbay (13.1%) was comparable to that of Tourism (13.5%)<sup>66</sup>.

<sup>62</sup> Devon County Council, Corporate Information Services

<sup>63</sup> Torbay Development Agency, Tourism Strategy for Torbay 2005-2015

<sup>64</sup> Adopted Torbay Local Plan 1995-2011

<sup>65</sup> Torbay Principal Holiday Accommodation Areas Monitor 2008

<sup>66</sup> Torbay Development Agency, Tourism Strategy for Torbay 2005-2015

As manufacturing per employee generates approximately the same wealth as tourism does for three employees. The closure of Nortel in Paignton since 2000 with the loss of over 5000 jobs was a severe blow to the manufacturing sector in Torbay, which had been expanding. Consequently it has been estimated that manufacturing accounted for only 8% of Torbay's GDP output in 2002, comparable to 1992 levels. An additional 600 job losses were announced in May 2007, which further reduces the number of staff at Bookham Technologies to 400<sup>67</sup>. The slump in manufacturing led to per capita income falling to 34% below the national average. However there have been signs of recovery since the pull out of Nortel. Manufacturing output grew by 7.6% in 2003, the same as for the general economy which has enabled the sector to maintain its share of 7.9 % of economic output<sup>68</sup>.

Employment in the manufacturing industry is still low compared to other centres of similar size and there is currently a shortage of readily available sites for light industry<sup>69</sup>.

### **2.1.7 Office Employment**

Economic Output from office employment is also low compared with centres of comparable size. There is a lack of purpose built office accommodation and the area suffers from a poor skills base and communications. Improvements in telecommunications, however, and the attractive environment of Torbay may help to stimulate office growth<sup>70</sup>.

According to Owen Nankivell between 2002 and 2003 there was a growth in the private sector, particularly in business services. Other growth sectors included general administration, education and health. An indication of this growth is the former Nortel House, now known as Vantage Point, and the adjoining land have now received planning permission for use as South Devon College's Campus<sup>71</sup>.

### **2.1.8 Agriculture and Fishing**

The fishing industry remains important to Torbay, particularly in Brixham - the largest fishing port in England and Wales in terms of volume and value. Torbay Council estimate there are 375 full-time fishermen and a total of 2,500 jobs which are dependent upon the fishing industry in Torbay. Despite declining employment, the fishing industry remains significant, not only in terms of the direct value it adds to the local economy, but because of strong cultural heritage and links with tourism<sup>72</sup>.

The industry has experienced a gradual decline over time in line with national trends and as a result of pressures from European legislation. The regeneration plans for Brixham will help to promote links between fishing and tourism. Processing,

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<sup>67</sup> Torbay Employment Land Monitor 2007

<sup>68</sup> O. Nankivell (2004) the Torbay Economy 1992-2002- Back to square 1

<sup>69</sup> Adopted Torbay Local Plan 1995- 2011

<sup>70</sup> Ibid

<sup>71</sup> Torbay Employment Land Monitor 2007

<sup>72</sup> Torbay's Economic Regeneration Strategy (undated)



marketing and catering activities to add value to local fish offer strong prospects, given that Brixham fish is arguably underdeveloped as a brand. Recreational fishing also offers growth prospects<sup>73</sup>.

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<sup>73</sup> Torbay's Economic Regeneration Strategy (undated)

## 2.2 Energy

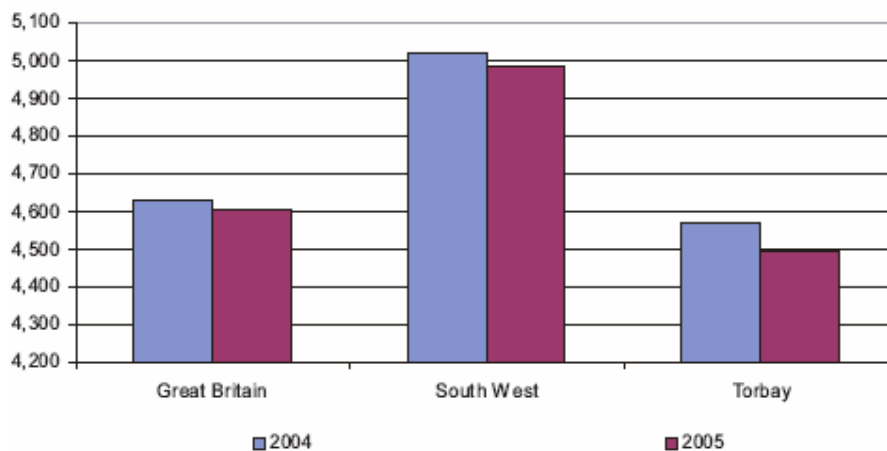
### 2.2.1 Introduction

Nationally, the Energy White Paper (2003) identifies the opportunity to reduce carbon dioxide emissions by developing a low carbon economy in the UK. In the South West, the Government Office South West (GOSW), South West Regional Assembly and South West Regional Development Agency (SWRDA) are working with partners to develop a Low Carbon Housing and Fuel Poverty Strategy and are working on an overarching sustainable energy strategy.

Estimates for gas, electricity and road transport energy consumption enable local authorities and regional bodies to target activity more effectively. The majority of energy is generated from fossil fuels and this causes air pollution and the destruction of landscapes. Using energy efficient products benefits through using less energy and reduced energy generation.

### 2.2.2 Energy Consumption

Figure 2.6 shows the average electricity sale per consumer in Torbay per kilo watt hour (kWh) is far below the regional average and just below the national average. With Torbay residents using on average 4,493 kWh per year, compared to the national average usage of 4,606 kWh<sup>74</sup>.

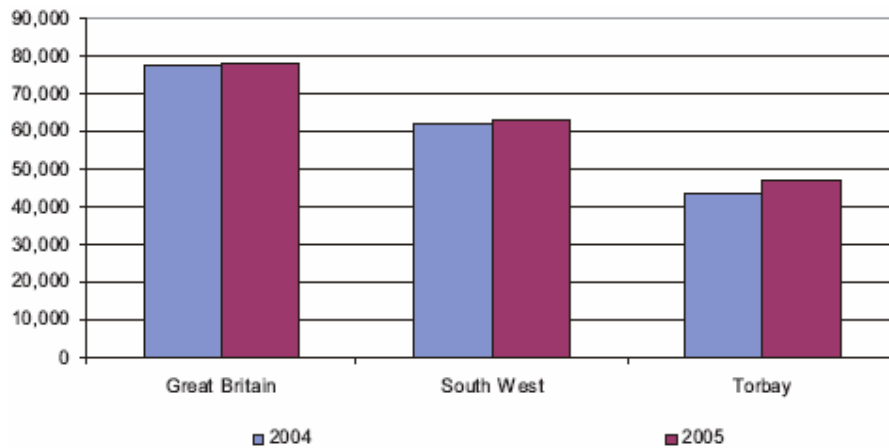


**Figure 2.6: Average domestic consumption ((kWh)**

Whilst there has been a decrease in the average amount of electrical energy usage domestically, the industrial average usage has increased slightly from 43,525 kWh in 2004 to 46,972 kWh in 2005<sup>75</sup> (Figure 2.7).

<sup>74</sup> Consultation and Research Team, Key Statistics for Torbay 2008

<sup>75</sup> Ibid



**Figure 2.7: Average industrial and commercial consumption ((kWh)**

Table 2.9 below shows the statistics of gas consumption in Torbay.

**Table 2.9: Average annual domestic consumption of gas in kWh<sup>76</sup>**

2004	18369 KWh
2003	17503 kWh
2002	461881 kWh

### 2.2.3 Current renewable energy production

In 2003 renewables accounted for just 2.7% of the electricity generated within the UK. Smaller proportions still of energy used for heating and vehicles fuel come from renewable sources. This is one of the smallest levels of renewable energy production within Europe.

The South West currently produces 151 MW of its electricity from renewable sources. 968 renewable heat projects were identified in 2008; the majority of these are residential installations<sup>77</sup>.

Devon has the second highest installed renewable electricity capacity in the South West, with 29.49 MW. This is an increase of just 0.56 MW on the 2007 survey and account of 19.56% of the region total capacity. Torbay contains five renewable energy projects with 0.015 MW in 2008 survey in comparison to one project with 0.005 MW in 2007 survey<sup>78</sup>.

Devon has the highest number of renewable heat installations in the South West at 336, and the second highest renewable heat capacity at 9.43 MW. Torbay contain 3 renewable heat installations with 0.102 MW which represent the lowest capacity in the Devon<sup>79</sup>.

<sup>76</sup> The Audit Commission 2008

<sup>77</sup> 2008 Survey of Renewable Electricity and Heat Projects in South West England

<sup>78</sup> Ibid

<sup>79</sup> Ibid

## 2.3 Transport

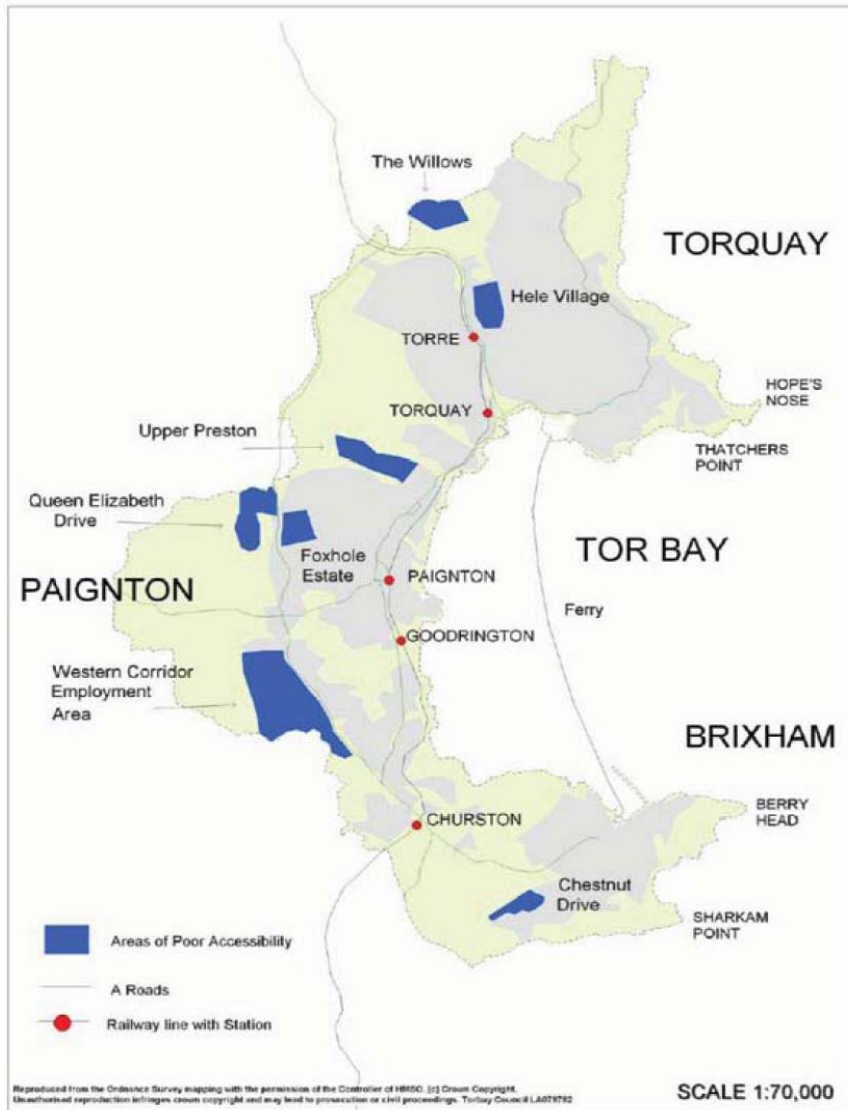
### 2.3.1 Introduction

Torbay Council faces unique challenges as it engages in improving accessibility in the district. Torbay's population includes high proportions of elderly, disabled and deprived residents, and its environment is predominantly urban with an undulating topography. The population has difficulties in terms of below average access to a car and greater than average need to access health and social services. The Torbay Local Transport Plan (LTP) defined accessibility as the ability of people to get to key services with reasonable cost, time and ease. The key to providing improved accessibility is to bring the services closer to the people who need them, or to improve links by sustainable modes.

Torbay Local Plan promotes a sustainable land use and transportation strategy, which seeks to achieve a balance between maintaining accessibility, reducing the environmental impact of transport and supporting Torbay's economic regeneration. Figure 2.8 shows the areas of Torbay identified as suffering from poor access to key services<sup>80</sup>.

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<sup>80</sup> Torbay Local Transport Plan 2006-2011



**Figure 2.8: Areas of Poor Accessibility**

### 2.3.2 Bus Services

Bus patronage has risen from 6,412,000 bus passenger journeys in 2002/03 to 6,498,000 in 2004/05. The target from the Torbay Local Transport Plan 2006 - 2011 is to achieve 8,035,000 passenger journeys by 2010/11.

The increase in bus patronage is likely to be linked to the following factors:

- Increased provision of public transport information through improvement in Travel Line Call Centre. This has led to an increase in number of calls to the Centre from 15,975 in 2001/02 to 36,310 in 2003/04.
- Improved bus infrastructure through an increase of 20 new bus stops, and improvements to 35 stops.

Further improvements are recognised as necessary in order to increase bus use. These include:

- Implementation of further bus priority schemes
- Introduction of multi-modal interchange for ease of use
- Further improvements are required to improve accessibility and quality of information
- A need to address public concern over personal security. Survey work indicates that this is discouraging bus use.

Customer satisfaction with bus services has improved since 2000 when 38% of bus users were satisfied with the service to 58% in 2003. It is anticipated that bus services will continue to be improved through the implementation of the Torbay Bus Strategy, designed to increase co-operation between the council and bus operators to achieve higher bus patronage.

### **2.3.3 Rail**

Torbay is part of the mainline National Rail Network with services running via Newton Abbot. Torbay has three railway stations at Torre, Torquay and Paignton. This line has a vital role in sustainable transport for Paignton and Torquay bringing employees, school children and holidaymakers into the area. The service is regular, running on an hourly basis for the majority of the day and half hourly at peak times. It is especially busy in the summer months when it takes additional holiday makers. Reliability of the train services has improved over the years from 91.1% in 2001/02 to 98% in 2003/04 with Wessex Trains meeting their service reliability targets.

Each of the stations have historic value (Grade II) but are in need of significant renovation. Torquay station in particular has been recognised as a potential location for a local transport interchange as part of a re-arrangement of layout at the station, and introduction of small business units. A step towards this interchange has been made through the provision of cycle parking facilities at Torquay station with further plans to introduce the same at Torre and Paignton within the financial year 2005/06. It is hoped that this will facilitate easier linked trips.

### **2.3.4 Cycling**

The levels of cycling in Torbay are increasing and new indicators being developed to measure this over time at key locations. An English Regions Cycling Development Team Local Authority Audit found that Torbay needed to improve its level of importance attached to cycling and the progress made towards its promotion and investment for infrastructure. Despite this, cycling in the Bay is increasing and Torbay Council was awarded 'Most Improved South West Authority' by the English Regions Cycling Development Team in 2004. However it is recognised that further work is required to increase funding for cycle infrastructure, further develop sections of the National Cycle Network, and promote cycling through for example schools and bike weeks. This will help to address the relatively low proportion (1.7%) of the working population who cycle to work (as of the 2001 census).

There are a number of physical barriers to cycle use in Torbay, the majority of which are common to many authorities. Such factors include the lack of cycle infrastructure

(e.g. racks and dedicated cycle lanes), poor lighting, adverse weather and Torbay's naturally hilly topography. In addition to this there are a number of social barriers, including fears of safety, security of cycle racks and perceived danger of associated traffic. The majority of these physical and psychological barriers are common to a large number of authorities and reflect general problems with cycling as a whole. The environment in Torbay is relatively safe for cyclists with the number of fatal and serious accidents involving cyclists very low with only one recorded accident in 1998 and one in 2001.

### **2.3.5 Walking**

Although many walk for pleasure there is a recognised need to increase the number of people walking as an alternative to the private car for short journeys. For example, parents driving children to school and those using the car for short journeys to work are significant generators of carbon emissions and congestion. Such issues are being addressed through school travel plans and travel to work plans which encourage alternative means of transport, such as walking. At the time of the 2001 census, approximately 16% of Torbay's working population (53,547) walked to work.

Efforts to encourage people to walk have been aided by improvements in pedestrian footways. Those in good condition have increased from 70% in 2000/2001 to 76% in 2003/2004.

### **2.3.6 Access for Disabled**

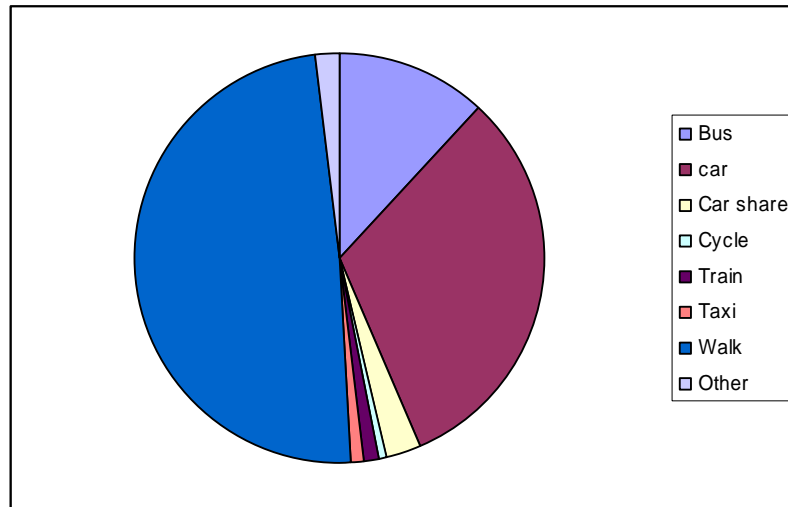
Torbay has a particularly high proportion of registered disabled residents, around 21 % according to the 2001 Census. Almost 50% of these people are over 65. Shop mobility facilities are available within Torbay providing motorised scooter services. In Torquay they provide disabled access to the Town Hall and the shops in Union Street and Fore Street. In Paignton they are available for the shops, seafront, Victoria Park and the library. In Brixham they provide a service to the harbour and Fore Street shops. There is also a 'ring and ride' service which transports disabled people both within Torbay and to other towns such as Dawlish and Totnes. This is supported by a community bus that is wheelchair accessible and available for hire by community groups and other organisations.

### **2.3.7 Access to Food**

Torbay has a number of seriously deprived areas in terms of economic, social and health parameters. Access to healthy and affordable food is an important issue, especially as some of these areas are in peripheral locations, for example Queen Elizabeth Drive (Paignton), Foxhole Estate (Paignton) and Chestnut Drive (Brixham). Devon Food Link, Surestart Torbay and Torbay Primary Care Trust are concentrating on three initiatives namely: food co-operatives; farmers markets; and grow your own schemes including allotment developments. Improved links between residential areas, town centres and supermarkets will also increase access to food.

### **2.3.8 Access to Learning**

Currently Torbay Council is promoting School travel plans. In 2009 all state schools were covered by school travel plan except one school with 50 pupils (see Figure 2.9). The Transport Team is currently working to include independent schools in Torbay.



**Figure 2.9: Travel to School Patterns in Torbay (2009)**

### 2.3.9 Access to Healthcare

NHS hospital services are provided by three main sites at Torbay, Paignton and Brixham Hospitals. Primary healthcare is mainly provided by GPs located throughout Torbay. Dentists and pharmacies are located mainly in town centre locations. The high proportion of elderly residents places pressure upon local health care systems, with many elderly cared for by unpaid family and friends.

Access to GP services, especially by the elderly can also be difficult. There are many reasons for these difficulties, including a lack of facilities in areas such as the Willows (Torquay), Great Parks (Paignton) and Chestnut Drive (Brixham), and the cost of transport, the car and taxis being the main forms of transport to GP facilities.

South Devon Healthcare Trust operates a fleet of ambulances and a non-emergency hospital car service for the elderly and mobility impaired. However, the capacity of this service is limited, and most patients and all visitors make their own transport arrangements, usually by car. Torbay Council has improved public transport access to Torbay hospital through several schemes, for example by widening the internal hospital roads and by subsidising new bus routes the 66, 64 and 65.

### 2.3.10 Travel to Work

Table 2.10 below shows the percentage of the resident population in Torbay who travel to work by different transport modes. The majority of the resident are using private car to travel to work; only 5.1% are using public transport<sup>81</sup>. However, according to the 2001; travel to work patterns for Torbay (see Figure 2.10) lower usage of public transport, and higher rates of cycling and walking than the South West and England<sup>82</sup>.

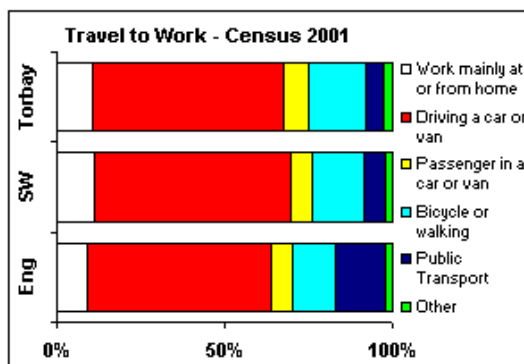
<sup>81</sup> The Audit Commission 2008

<sup>82</sup> Consultation and Research Team, Torbay Brief 2008



**Table 2.10: Percentage of residents who travel to work by different transport mode**

Transport mode	Value
Private motor vehicle (car, taxi or motorbike)	66%
Public transport	5.1%
On foot or cycle	17.2%



**Figure 2.10: Travel to work**

### 2.3.11 Access to Cultural and Sporting Activities

Recreation and culture is the second largest category of weekly household expenditure in the South west, after transport. Although the region’s population as a whole invests heavily in cultural activity, cultural events and activities can be socially exclusive with participation rates much higher for wealthier and better educated groups than for the more disadvantaged.

Local facilities include: major attractions (for example Living Coasts, Paignton Zoo); libraries and museums (Torquay, Brixham Heritage and Torre Abbey); theatres and cinemas; sports facilities (including a number co-located with schools); social clubs and day centres for the elderly and disabled; and public open spaces and parks (for example Cockington Country and Berry Head Parks). Naturally occurring features also offer recreational facilities, for example 18 local beaches and the South West Coast National Trail.

In terms of community facilities the following key issues have been identified in the Local Transport Plan<sup>83</sup>:

- The need to provide out of hours access, often till late, or through the night
- Access for the elderly and mobility impaired creates a need for more widely available community transport and low level wheel chair accessible transport.
- The need to provide sustainable access to all locations, requires that these facilities be incorporated into public transport services as far as possible

<sup>83</sup> Torbay Local Transport Plan 2006-2011

## 3. Environmental Characteristics

This section discusses and provides statistics of the SEA topics relevant to air quality, biodiversity, climatic factors, cultural heritage and landscape, waste and water and soil.

### 3.1 Air Quality

#### 3.1.1 Air Quality in Torbay

Air quality in Torbay is generally good, meeting six out of seven air quality objectives specified in the Air Quality Regulations 2000 (as reported to DEFRA in March 2004). These objectives cover the following pollutants: carbon monoxide (CO), benzene, 1-3-Butadiene, lead, nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>) and PM10 (PM10 stands for particulate matter below 10 microns in diameter).

The air quality objective that was not met in 2006-2007 was for nitrogen dioxide and was linked to one location close to a busy road. It is anticipated, however, that the air quality objectives in Torbay will be reached by their target date of 2010 in regard to the seven key pollutants, which include nitrogen dioxide.

#### 3.1.2 Sources of Air Pollution in Torbay

Torbay has relatively low levels of industrial activity and therefore traffic forms the main source of air pollution in the area, in particular levels of nitrogen dioxide. This is likely to remain a key issue as traffic flows are increasing in Torbay on average by 1.4% per annum<sup>84</sup>. This problem is exacerbated in the summer months when roads are placed under additional strain by a high number of visitors and tourists.

The increase in traffic has led to a potential deterioration in air quality in a small number of areas, particularly roads where the close proximity of properties have led to a canyon effect, and in highly congested areas.

#### 3.1.3 Air Quality Management Areas in Torbay

Investigation undertaken during 2003/04 indicated that Hele Road was likely to fail its air quality objective. Other areas that were also close to failing the objective were Dartmouth Road in Paignton and the Bolton Cross area of Brixham. It is anticipated that all of these will experience a reduction in nitrogen dioxide by 2010 as a result of improved vehicle technology, although this may be overtaken by traffic volume increases (see Figure 3.1). Table 3.1 shows the concentrations of NO<sub>2</sub> in the three areas were predicted to be failing the air quality objective.

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<sup>84</sup> Torbay Local Transport Plan 2001-2006

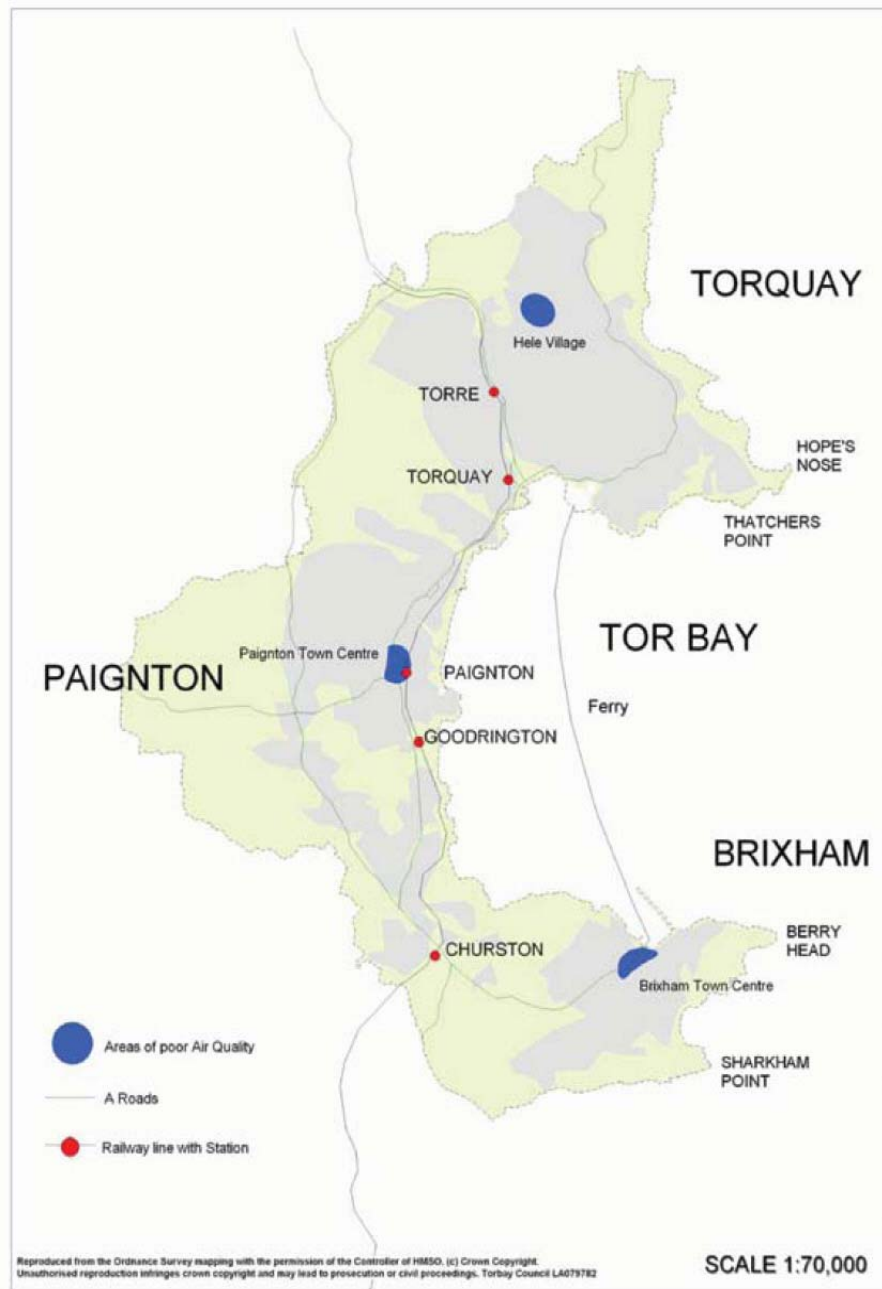
**Table 3.1: Annual mean of NO<sub>2</sub> concentrations (µg/m<sup>3</sup>)**

	2003/04	2004/05	2005/ 06	2006/07
<b>Hele Road</b>	37.7	41.8	40.6	34.1
<b>Bolton Cross</b>	36.5	40.2	42.9	39.1
<b>Paignton town centre</b>	37.7	41.5	40.3	29.9

Following the submission of a detailed report to DEFRA in November 2004 Hele Village was designated as an Air Quality Management Area (AQMA). The level of nitrogen dioxide here has exceeded that set by the Air Quality Objective. Monitoring using diffusion tubes was carried out along a stretch of Hele Road at various locations in order to monitor nitrogen dioxide levels. This problem is attributed to two main factors: an increase in traffic flows; and a localised canyon effect of houses and embankments that prevent dispersal of pollutants. The eastern extent of Hele Road experiences localised elevated levels of Nitrogen dioxide.

Following monitoring of air quality in Brixham Town Centre throughout 2004 /05, the Bolton Cross area of Brixham was declared an Air Quality Management Area in 2006. This area is subject to detailed studies through the Brixham Central Area Transport Strategy, which is being developed in response to regeneration proposals for the town centre, including a review of car parking, new housing development, additional industrial facilities and a revised layout of the town square.

The Dartmouth Road area of Paignton has also been identified as an area of concern regarding air quality, showing levels of pollution very close to the threshold for an Air Quality Management Area declaration, and monitoring continues in this area.



**Figure 3.1: The general areas identified as having poorer air quality**

### 3.1.4 Congestion Hotspots

The Torbay Local Transport Plan identifies current vehicle congestion hotspots in Torbay (2004), and predicted vehicle congestion hotspots for 2011, based on the Torbay Traffic Model which uses the transport modelling software SATURN. Current and predicted vehicle congestion hotspots are shown in Figure 3.2 and Figure 3.3, with locations given in Table 3.2<sup>85</sup>.

<sup>85</sup> Torbay Local Transport Plan 2001-2006

**Table 3.2: Location of congestion hotspots in Torbay**

South of Kingskerswell	Avenue Road/Newton Road	Burton Street/Rea Barn Road
Rathmore Road/Torbay Road	Gallows Gate	Yalberton Road/Brixham Road
Abbey Road/Tor Church Road	Torquay Road/Manor Road	Totnes Road/Dartmouth Road
Abbey Gates	Browns Bridge	Dartmouth Road/Penwill Way
Falkland Road/Lucius Street	Kerswell Gardens	Cockington Lane/Torbay Road
Riviera Way/Newton Road	Churscombe Cross	Hyde Road/Torquay Road
Shiphay Road/Newton Road	Torquay Road/Cecil Road	Manor Road/Babbacombe Road
Tweenaways Cross	Barton Hill/Kingskerswell Road	Kings Drive/Torbay Road
Seaway Lane/Torbay Road	Bolton Cross	Whitstone Road/Dartmouth Road
Five Lanes	Belgrave Road/Torbay Road	Totnes Road/Fisher Street
Barton Road/Cricketfield Road	Windy Corner	New Road/Monksbridge Road
Scott's Bridge	Colley End Road/Kings Ash Hill	Great Western Road/Dartmouth Road
Lawes Bridge	Fisher Street/Dartmouth Road	Long Road/Brixham Road

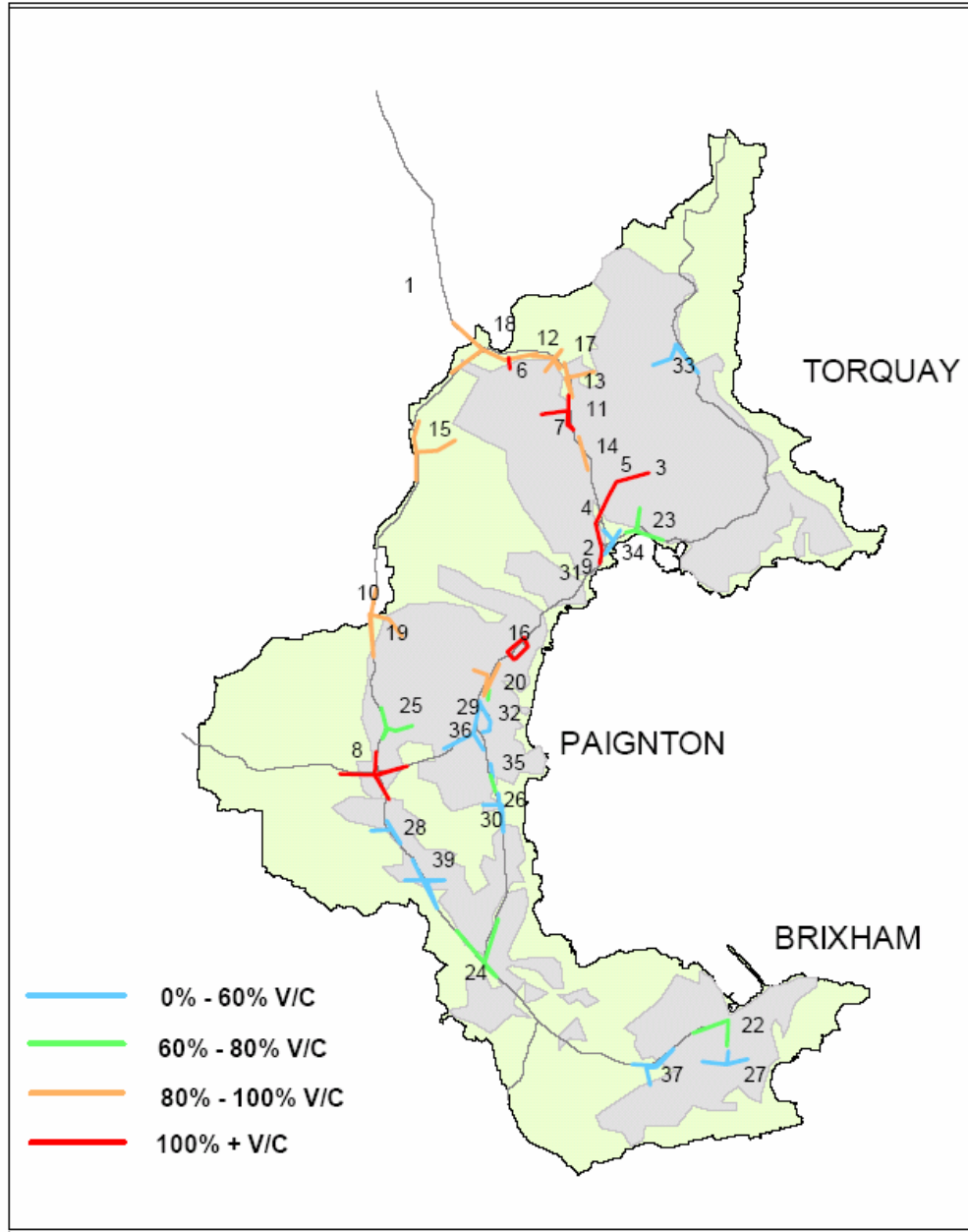


Figure 3.2: Vehicle congestion hotspot in Torbay 2004

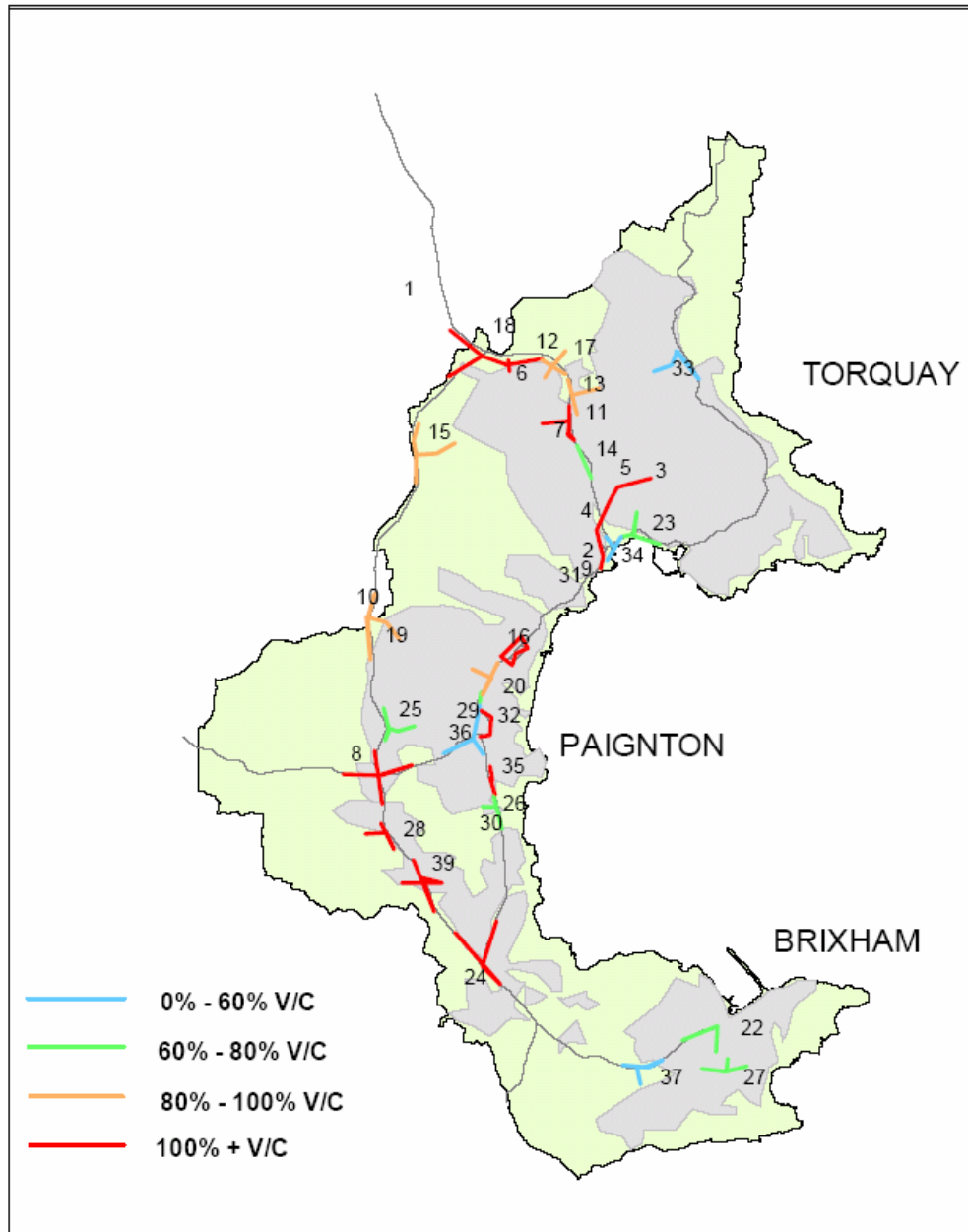
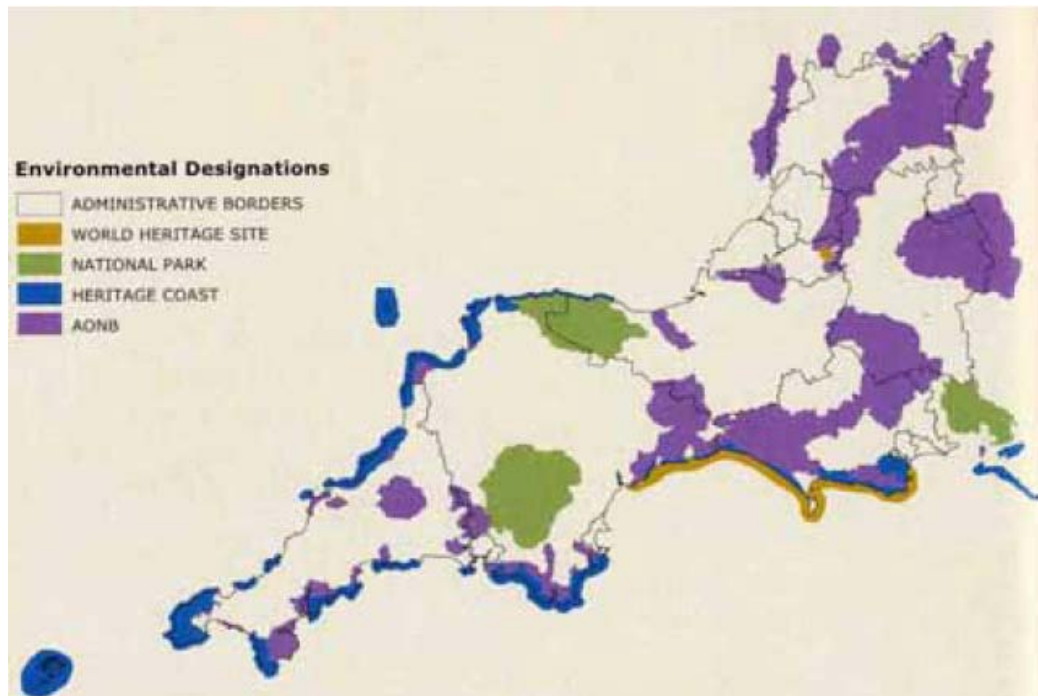


Figure 3.3: Forecast vehicle congestion hotspot in Torbay for 2011

## 3.2 Biodiversity

### 3.2.1. The Regional Context

The South West of England is renowned for its high quality natural environment (see Figure 3.4). A large proportion of the region is covered by environmental designations which serve to emphasise the high environmental quality of this area. In addition to those designated on the maps below the region is home to the largest concentration of built heritage in the country, a range of internationally important wildlife sites, 46 National Nature Reserves and 79 Local Nature Reserves<sup>86</sup>. The quality of its coastal environment is such that it comprises 60% of England's protected coastline.



**Figure 3.4: Environmental Designations of the South West**

The Regional Strategy of the South West Environment 2004-2014 identifies some key issues which need to be addressed to maintain the environment in the South West. These include concerns over the condition of Sites of Special Scientific Interest (SSSIs), loss of heathland and pressures on coastal habitats, changes to coastal geomorphology and fragmentation of habitats.

In addition to these are issues related to agricultural practices which have encouraged habitat fragmentation, decline in quality of SSSIs and a loss of farmland bird species. The latter is of particular concern as a decrease of 43% in farmland birds has been observed since 1970. This is the sharpest decline of any region. Focused projects have

<sup>86</sup> Our Environment Our Future: The Regional Strategy for the South West Environment 2004- 2014



helped increase some populations but agrienvironment schemes will hopefully help across the board.

### **3.2.2 The Local Context**

Torbay is part of the South Devon Natural Area<sup>87</sup> (as defined by English Nature) where the varied geology produces a diversity of coastal and inland habitats. This has led to recognition by English Nature that the area is one of the seven most important in England and Wales for rare plant species. The main habitats found in Torbay are outlined below, however it should be recognised that these should not be considered in isolation but as inter-dependent with each other. Links between these habitats provided by, for example streams and hedges, are essential in maintaining their long term survival.

### **3.2.3 Lowland Calcareous Grasslands**

Torbay's calcareous grasslands are of regional and national importance and their conservation is of highest priority. The South Devon Natural Area description published by English Nature in 1998 describes Torbay's calcareous grassland as being of "tremendous importance for its large number of nationally rare and scarce flowering plants". Torbay supports the most extensive stands of calcareous grassland in Devon, on its outcrops of Devonian limestone.

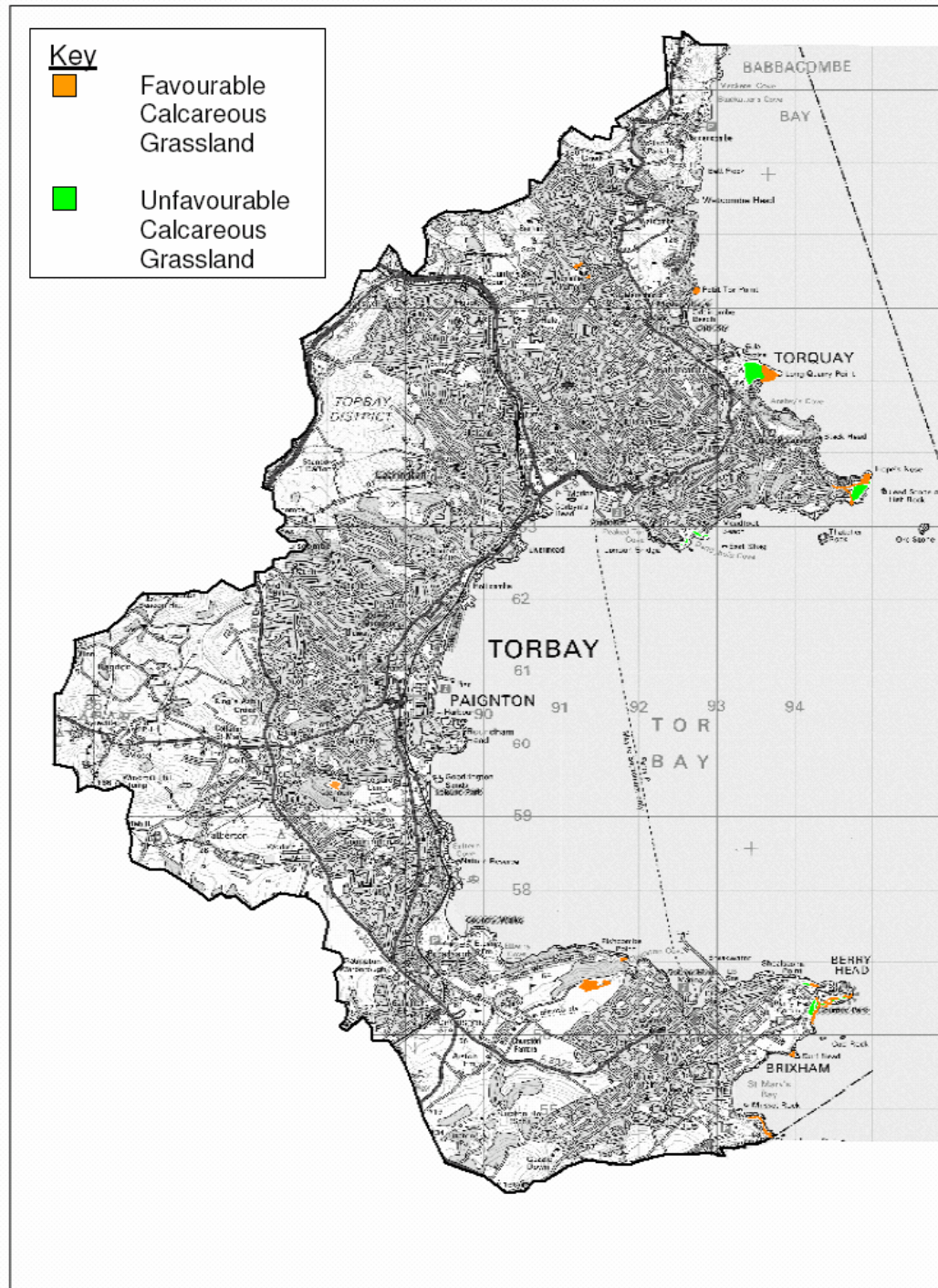
The Torbay Wildlife Survey (1991) identified only 22.36 hectares of unimproved and 16.6 ha of semi-improved calcareous grasslands in Torbay. The most extensive sites identified as having areas of calcareous grassland in the Calcareous Grassland Survey (2001) are Berry Head, Wall's Hill, Hopes Nose and Sharkham Point (Figure 3.5). Smaller areas have been identified in The Grove, Fishcombe Point, Clennon Hill, Petit Tor Quarry, Daddy Hole, St Marychurch Down, Lummaton Quarry and Durl Head; many of these smaller sites are in unfavourable condition<sup>88</sup>.

#### **The Current Threats to this Habitat**

- Scrub encroachment from species such as blackthorn, cotoneaster, holm oak, gorse linked to a reduction in grazing and lack of management.
- Habitat destruction and possible development threats.
- Heavy trampling
- Dog fouling and disturbance leading to a loss in species diversity through localised nutrient enrichment.
- Fragmentation leads to a decline in species diversity and abundance and an increase probability of species extinction.
- Misuse of habitat e.g. fire, mini motorbikes and litter

<sup>87</sup> English Nature (1998) 'South Devon Natural Area'

<sup>88</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016



**Figure 3.5 Distribution of favourable and unfavourable calcareous grassland sites in Torbay<sup>89</sup>**

<sup>89</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

### 3.2.4 Urban Habitats

Urban habitats include built up areas, greenspace and wasteland. Figure 3.6 shows the domestic garden and public greenspace in Torbay. Urban biodiversity has been given priority status because of increasing pressures from development, recreation and inappropriate management. Urban wildlife also offers a high potential for public involvement and it is where Torbay's local population will enjoy Torbay's biodiversity the most. The main aim is to raise public awareness of wildlife and focus people's attention on what they can do on their own doorstep to achieve biodiversity targets.

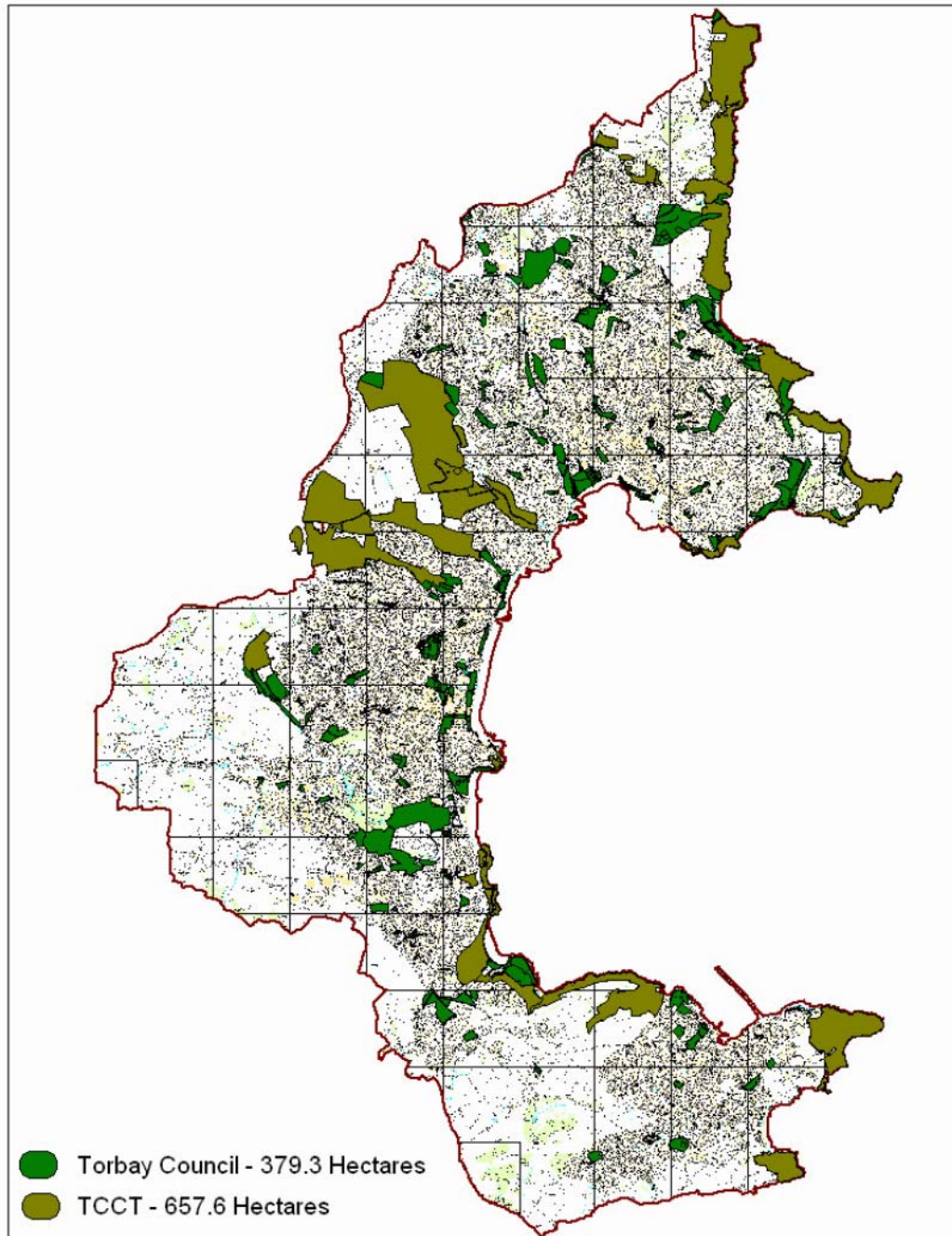
#### **The Current Problems/Threats to these Habitats**

##### **Domestic Gardens and Public Greenspace**

- Neat and tidy gardening– little 'death and decay' (lack of log piles and leaf litter), intensive mowing, removal of 'weed' species and lack of nectar rich flowers, use of fertiliser, pesticides and herbicides.
- Unsustainable garden materials – use of peat compost and limestone pavements for rock gardens and water features.
- Cats – predation on wildlife.
- Alien species – dumping of non-natives in private gardens.
- Cutbacks in public sector funding, lack of information, health and safety issues, reduction in area size.
- People pressures – dog fouling leading to enrichment, trampling, vandalism and desire for clean, neat and tidy parks.
- Lack of interpretation and community involvement with urban biodiversity.

##### **Buildings, Development & Industry**

- Development pressures – Government policy encourages the development of new housing on 'Brownfield' sites. Torbay Council's aim is for 65% of new development to be on Brownfield Sites (Torbay Local Plan).
- Lack of awareness by developers of building for biodiversity e.g. use of native species, planting with biodiversity in mind.
- Traffic and the over-use of cars leading to an increase in air pollution.
- Inappropriate management of roadside verges – tarmacing over, not replacing highways trees.
- Railways – inappropriate management of embankments.
- Infilling with a reduction in garden size and loss of mature trees through lack of planning control.



**Figure 3.6 Sites Managed by Torbay Coast and Countryside Trust (TCCT) and Torbay Council**

### 3.2.5 Farmland

The term farmland includes all habitats especially arable management, hedgerows and hedgerow trees, traditional orchards, flower-rich meadows and permanent pasture including in-field trees.

In 2004 DEFRA estimated total farmed area in Torbay of 1805 hectares, which represents 28% of Torbay's total land area. There has been a 10% decrease of



farmland in Torbay from 1995, which reflects a decrease nationwide. Farmland is under pressure from development, recreation and changes in farming practices and this poses a great threat to wildlife that depends on the farmland habitat.

Some of Torbay's farmland is designated in the Local Plan as Area of Great Landscape Value. Several areas of farmland are designated as County Wildlife Sites. In addition, part of Ocombe Farm, near Paignton, was classed as SSSI in 1992 and consists of 12 ha of unimproved meadows and an area of ancient semi-natural woodland. Ocombe's herb-rich grassland is neutral and characterised by the National Vegetation Classification (NVC) Grassland as *Cynosurus cristatus* – *Centaurea nigra* grassland. This plant community is recognised in the UK BAP Lowland Meadows Habitat Action Plan.

The Environmental Stewardship Scheme launched in 2005 replaces Defra's two flagship schemes – Countryside Stewardship and Environmentally Sensitive Areas. One of its primary aims is to conserve biodiversity by providing compensation to farmers that show good land management such as good hedgerow management. It is split into three elements: Entry Level Stewardship (ELS), Organic Entry Level Stewardship (OELS) and Higher Level Stewardship (HLS). Torbay's current 14 Countryside Stewardship Agreements are shown in Figure 3.7 below<sup>90</sup>.

**The Current Problems/Threats to this Habitat**

- Improvement of grassland resulting in a species poor sward with low wildlife value.
- Bad hedgerow management - lack of nesting habitats and shelter, break in potential wildlife corridor, lack of old hedgerow trees.
- Cost of managing marginal land.
- Use of unsuitable worming treatments – leading to a loss or reduction in dung fauna.
- Changes in crop type and land use – loss of arable land linked to reduction in seed source, reduction in mixed farming practices.
- Stock management – high densities of livestock (damaging effects on trees, sward and lead to erosion and run-off) stock type.
- Changes in support systems.
- Development pressures.
- Recreational Pressures

<sup>90</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

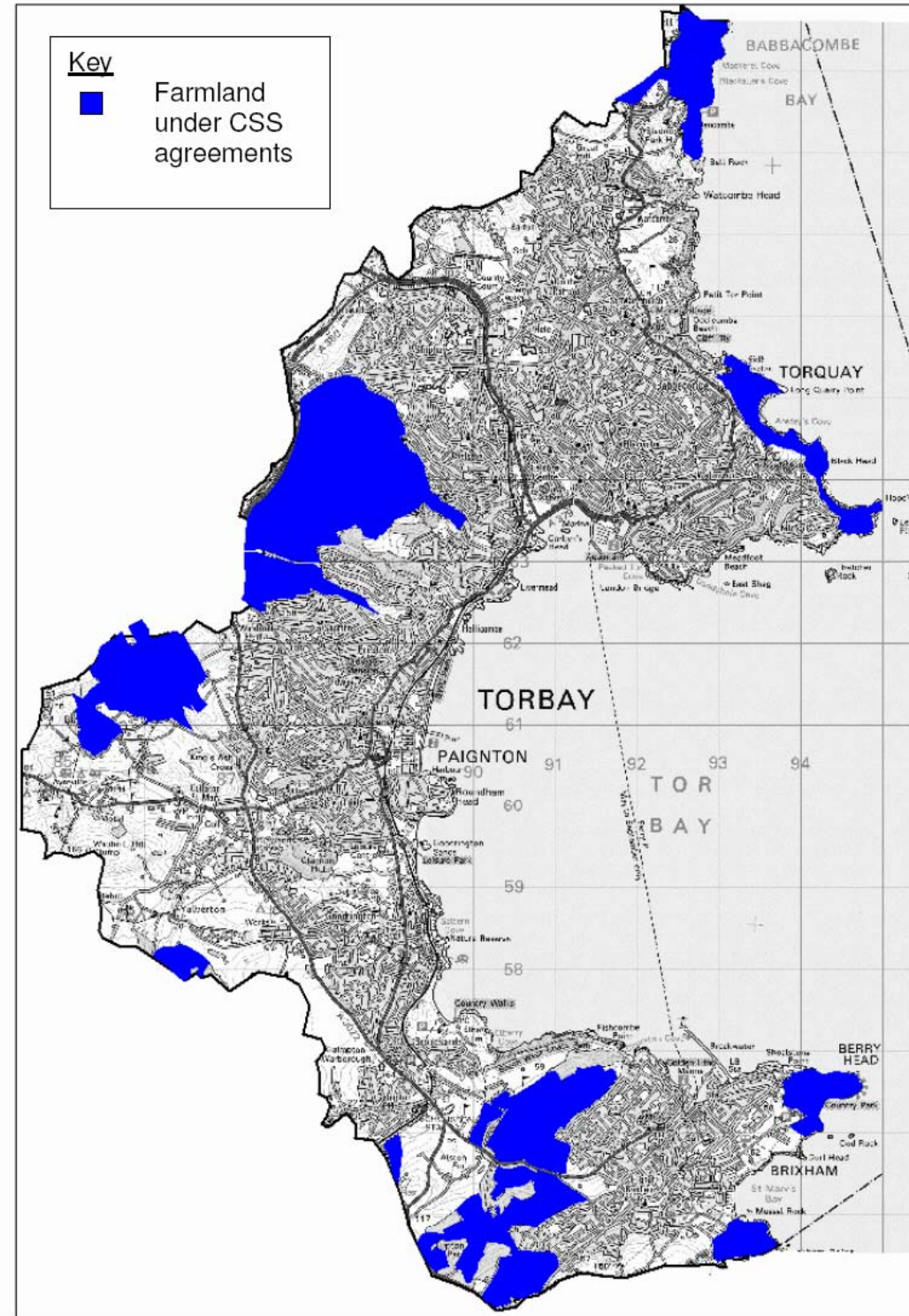


Figure 3.7 Environmental Stewardship Agreements (CSS) (2006) in Torbay

### 3.2.6 Broadleaved Woodland

Today Torbay's woodland covers approximately 7.2% of the total land area. The majority of Torbay's woodland is described as secondary woodland or plantation and is dated post 1600AD<sup>91</sup>. These areas would have grown up from abandoned farmland, coastal slopes and open grassland or would have been planted with compartments of exotic or non-native tree species. The few sites that are classed as ancient semi-natural woodland on English Nature's Ancient Woodland inventory occur in the Clennon Valley, Occombe Woods, Lupton Park, and The Grove, Brixham. These date back to at least 1600AD. Ancient woodland is considered by English Nature to be of highest value for nature conservation.

The Torbay Wildlife Survey (1991) recognised 532 ha of total woodland, which includes about 40 ha of ancient woodland and 193.94 ha of semi-natural broadleaved woodland. Figure 3.8 shows the broadleaved woodland resource in Torbay.

#### **The Current Problems/Threats to this Habitat**

- Urban expansion
- Fragmentation of woodland – no habitat linkage/wildlife network
- People pressure – vandalism, dog fouling
- Lack of management and knowledge
- Incorrect management – too tidy and too safe
- Invasion/dominance of a particular species e.g. rhododendron and laurel
- Dumping of garden waste and introduction of alien species
- Lack of dead wood
- Woodland structure – lack of shrubs and younger growth, uniform age structure
- Pests – squirrel and deer damage

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<sup>91</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

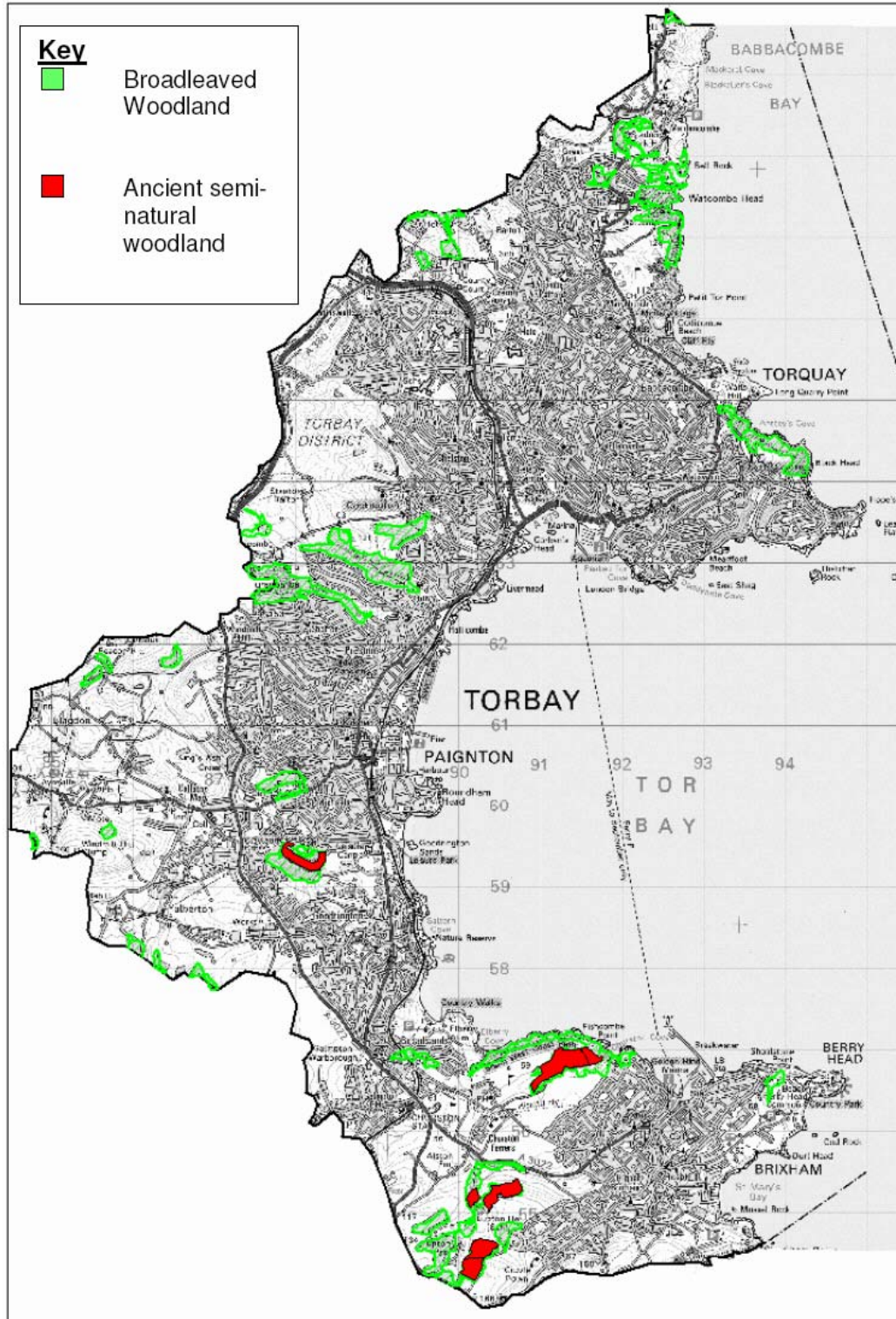


Figure 3.8 Areas identified as Broadleaved Woodland in Torbay<sup>92</sup>.

<sup>92</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016



### 3.2.7 Maritime Cliff Slope

Maritime cliff and slope is defined in the UK BAP as 'sloping vertical faces on the coastline where a break in slope is formed by slippage and/or coastal erosion. Extending landward to at least the limit of sea salt deposition and encompasses entire islands or headlands and seaward to the splash zone'. Maritime cliff and slope provide important habitats for plant communities, nesting seabirds and peregrines and are important geologically.

In Torbay there is approximately 22 miles of coastline which includes cliffs, slopes, ledges, rocky/sandy/shingle beaches and caves. The actual amount of maritime cliff and slope resource is unknown<sup>93</sup>.

#### The Current threats to this habitat

- Coastal Development – Species are able to retreat with erosion of the cliff line however if it is squeezed between developed or cultivated land then this increases the chance of species loss through habitat loss. Natural erosion is necessary to maintain fresh geological outcrops.
- Scrub encroachment from species such as blackthorn, cotoneaster, holm oak, gorse linked to a reduction in grazing and lack of management. This obliterates habitats and exposures.
- Recreational Pressures – trampling; rock climbers can increase disturbance to seabirds and peregrines, damage rock faces or delicate geological features; increase worrying of grazing livestock.
- Coastal Protection – Re-profiling, stabilising with foreign substrates and disturbance can all lead to a reduction in biodiversity and geodiversity.
- Pollution
- Lack of access to resource – leads to a lack in knowledge and understanding.

### 3.2.8 Earth Heritage

Torbay is geologically famous for its limestone cliffs and quarries. It also includes excellent exposures of Permian "Red Beds", which overlie the older Devonian rocks. These were laid down in desert wadis and plains and date from around 280-240 million years ago. Tectonic structures such as folds and faults recall the dramatic mountain building era of the Variscan Orogeny and unique mineral deposits of Triassic age all contribute to the heritage of the bedrock of the Bay.

The English Riviera Geopark has a rich and well-exposed geological heritage, from Devonian reefs to Pleistocene bone-caves. The area includes one of the highest concentrations of protected geological sites in the UK sites<sup>94</sup> also see Figure 3.9.

- 11 Site of Special Scientific Interest (SSSI)
- 1 National Nature Reserve (NNR)
- 1 Local Nature Reserve (LNR)

<sup>93</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

<sup>94</sup> The English Riviera Geopark Management Plan 2008

- 6 County Geological Site (CGS) a further 10 sites are currently proposed for CGS status.
- 15 Geological Conservation Review Network sites (GCR)

**The current problems/threats to this habitat**

- Visitor pressure: collection of geological specimens, erosion and damage to biological assemblages, cave floor sediments and items of archaeological importance by trampling, disturbance of roosting bats and cave dwelling species.
- Uncontrolled access
- Infilling from landfill and other waste disposal, pollution and contamination of underground water courses and bodies
- Lack of information of the distribution and the ecology of cave dwelling species
- Lack of reliable geological information which is co-ordinated and communicated
- Lack of safe public access where appropriate
- Pollution
- Beach management regimes



Figure 3.9: Positions of SSSIs, GCR, CGS and proposed CGS in Torbay<sup>95</sup>

### 3.2.9 Parkland and Veteran Trees

The South West Biodiversity Action Plan broadly defines parkland as ‘Sites with old trees, sometimes mixed with younger trees of various ages but often associated with open habitats including grassland’. A veteran tree is usually old, having survived longer than other trees of the same species.

<sup>95</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

The two main areas of parkland in Torbay are Cockington Country Park, Torquay and Lupton Park, Brixham. Cockington Country Park totals 186 ha of parkland, woodland and farmland and has Country Wildlife Site (CWS) and Local Wildlife Site (LWS) status. Lupton Park is a LWS and has 108 ha of parkland and woodland and is currently managed privately as permanent pasture. There are also small areas of parkland (1.3 ha) at Primley Park, Paignton, Brunel Woods, Rainbow Estate, Torquay Cemetery (Barton Road), Oldway Gardens and Castle Tor. Figure 3.10 shows the current areas identified as having parkland in Torbay<sup>96</sup>.

**The current problems/threats to this habitat**

- Removal of old trees and dead wood and cessation of old management practices e.g. pollarding.
- Recreational pressures – too tidy and too safe.
- Uniform age structure and fragmentation of sites.
- High stocking rates – compaction, trampling, bark stripping and nutrient enrichment around trees.
- High grazing levels – species poor grassland
- Grassland management – intensive in areas that have the potential for habitat enhancement.
- Inappropriate use of herbicides and fertiliser.
- Machinery – trees damaged by collisions and bad tree surgery.
- Lack of knowledge
- Loss of hedgerows

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<sup>96</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016



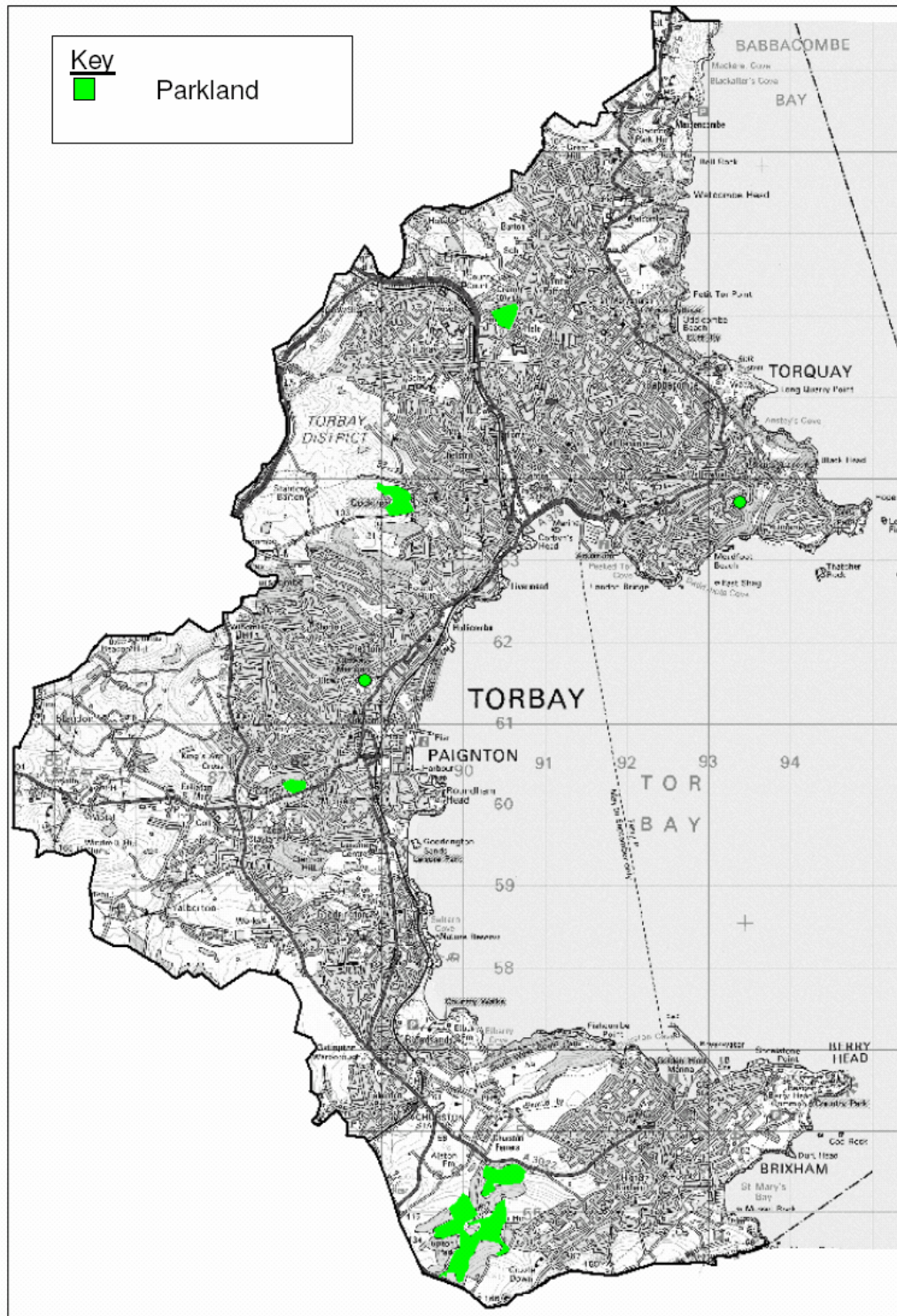


Figure 3.10: Areas of Parkland in Torbay

### 3.2.10 Wetland

The term ‘Wetlands’ refers to reedbeds, open water and ditches. Reedbeds are a rare and threatened habitat in the UK, with only about 5000 ha in total and provide a habitat for species such as the reed warbler, bittern, Cetti’s warbler, water rail, tufted duck and unusual plants and invertebrates<sup>97</sup>.

Although wetlands can only be found in small pockets in Torbay and there are no rivers, some wetland areas have been identified as having considerable wildlife value<sup>98</sup>. Figure 3.11 shows the current areas of reedbeds in Torbay. Torbay’s reedbeds are important as a link for bird species between bigger areas of reedbeds outside the Bay at Slapton Sands and the Teign and Exminster Marshes. A bittern has been sighted on the reedbeds at Broadsands.

#### **The current problems/threats to this habitat**

- Inappropriate management leading to scrub dominance and succession to woodland.
- Small, isolated fragments.
- Development pressures
- Trampling
- Coastal defence and urban squeeze.
- Pollution and litter.

<sup>97</sup> The Nature of Torbay – A Local Biodiversity Action Plan 2006-2016

<sup>98</sup> Torbay Wildlife Survey, 1991

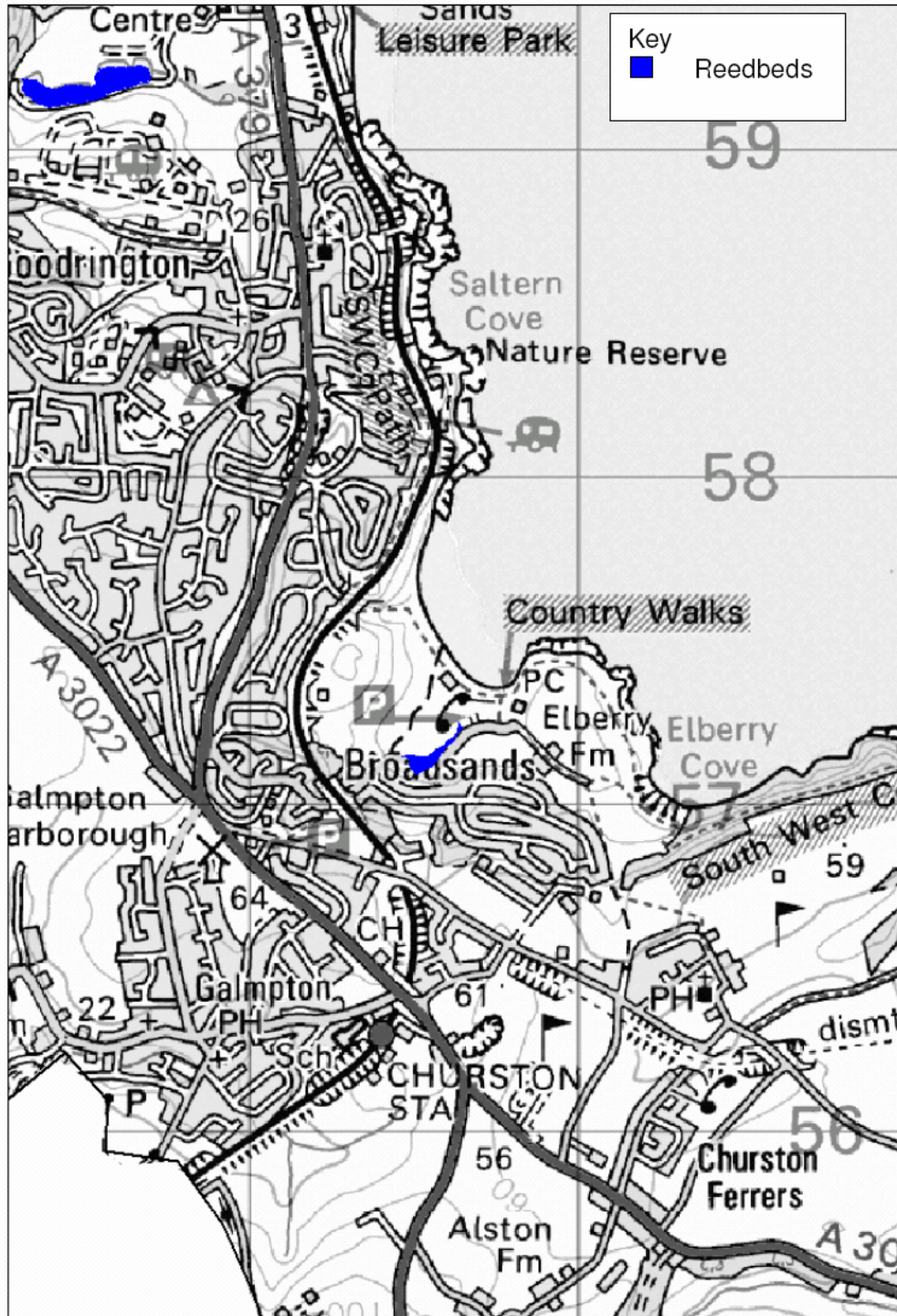


Figure 3.11: Areas of Reed bed in Torbay

### 3.2.11 Marine Habitats

The marine environment provides habitats for a range of species including; soft muddy sands, limestone sublittoral communities, a high density of marine caves, the largest area of eelgrass in the Great West Bay, intertidal zones, under boulder sites



and rocky ledges and boulders. The Torbay Marine Biodiversity Action Plan and the Torbay LBAP identify priority marine habitats and species as outlined below. Locations of some key marine habitats are shown in Figure 3.12.

### **Littoral Rock and Sediment**

This zone, between tide marks is immersed during high tides and exposed during low tides. It is recognised as a Devon Priority Habitat and provides habitats for Honeycombe worm reefs and edible mussel beds. It is currently threatened by intense recreational pressures (e.g. rock pooling). Potential threats include development pressures, for example coastal defences existing into the littoral zone.

### **Inshore Sublittoral Rock and Sediment**

These are national priority habitats, Devon Priority Habitats and are linked to the Commercial Marine Fish Species Action Plan. The species it supports includes Cuckoo Wrasse, Pollack, Bass, Leopard-Spotted Goby, Devonshire Cup Coral, Common Lobster and Common Spider Crab. Threats include: physical disturbance by the fishing industry, pipe and cable laying and sea defence construction; organic pollution (e.g. sewage); coastal protection works; discharge of contaminants and nutrient enrichment.

### **Seagrass Beds**

These habitats develop in intertidal and shallow subtidal areas of sand and mud and are National and Regional Priority Habitats. In Torbay the most extensive areas are found at Torre Abbey Sands and Elberry Cove. They provide habitats for seahorses and breeding grounds for cuttlefish and other fish species as well as important feeding areas for wintering sea birds. The main threats to these environments include disease, physical disturbance (trampling and dredging), increased turbidity, nutrient enrichment and marine pollutants.

### **Marine Caves**

Torbay's marine caves provide habitat for a diverse range of fauna. Berry Head contains an extensive limestone cave system and several other caves in Torbay have also been noted for the presence of rare species. There is a lack of awareness and knowledge of marine caves and this habitat may also be threatened by pollution and disturbance.

### **Dolphins, Porpoises and Basking Sharks**

The Bottlenose Dolphin is listed in Annex II and IV of the EC Habitats Directive. The harbour porpoise under Appendix II of Convention on International Trade in Endangered Species (CITES), Appendix II of the Bern Convention and Annexes II and IV of the EC Habitats Directive and protected under schedule 5 of the Wildlife and Countryside Act. The Basking Shark is also protected under the Countryside and Wildlife Act 1981 with its global status assessed as vulnerable in the 1996 International Union for the Conservation of Nature (IUCN) Red list. Harbour porpoises, Basking Sharks and seals regularly visit the bay as does a pod of 50 Bottlenose Dolphins. Dolphins are threatened by by-catches, physical damage caused by boat activity and contaminants.



### **Seabirds**

Torbay is a nationally important area for winter roosting bird species such as the Red-throated Diver, Black-throated Diver, Great Northern Diver, Great Crested Grebe, Red-necked Grebe, Slavonian Grebe, Black-necked Grebe and Common Scoter. It is also an important breeding site for the Common Guillemot colony at Berry Head which requires minimal disturbance during the breeding season and is recognised through its designation as an Area of Special Protection. All of these species are listed under the UK Birds of Conservation Concern schedule as red (globally threatened) or amber (unfavourable conservation status in Europe). The main threats to these species include physical disturbance, anglers, gill nets, marine pollution and increased turbidity.

### **Seahorses**

Torbay has populations of the Spiny Seahorse and the Short Snouted Seahorse, both of which are assessed as vulnerable in the IUCN Red List. Current concerns and threats relating to these species include a lack of awareness and information, and the threat of habitat loss e.g. seagrass habitats.

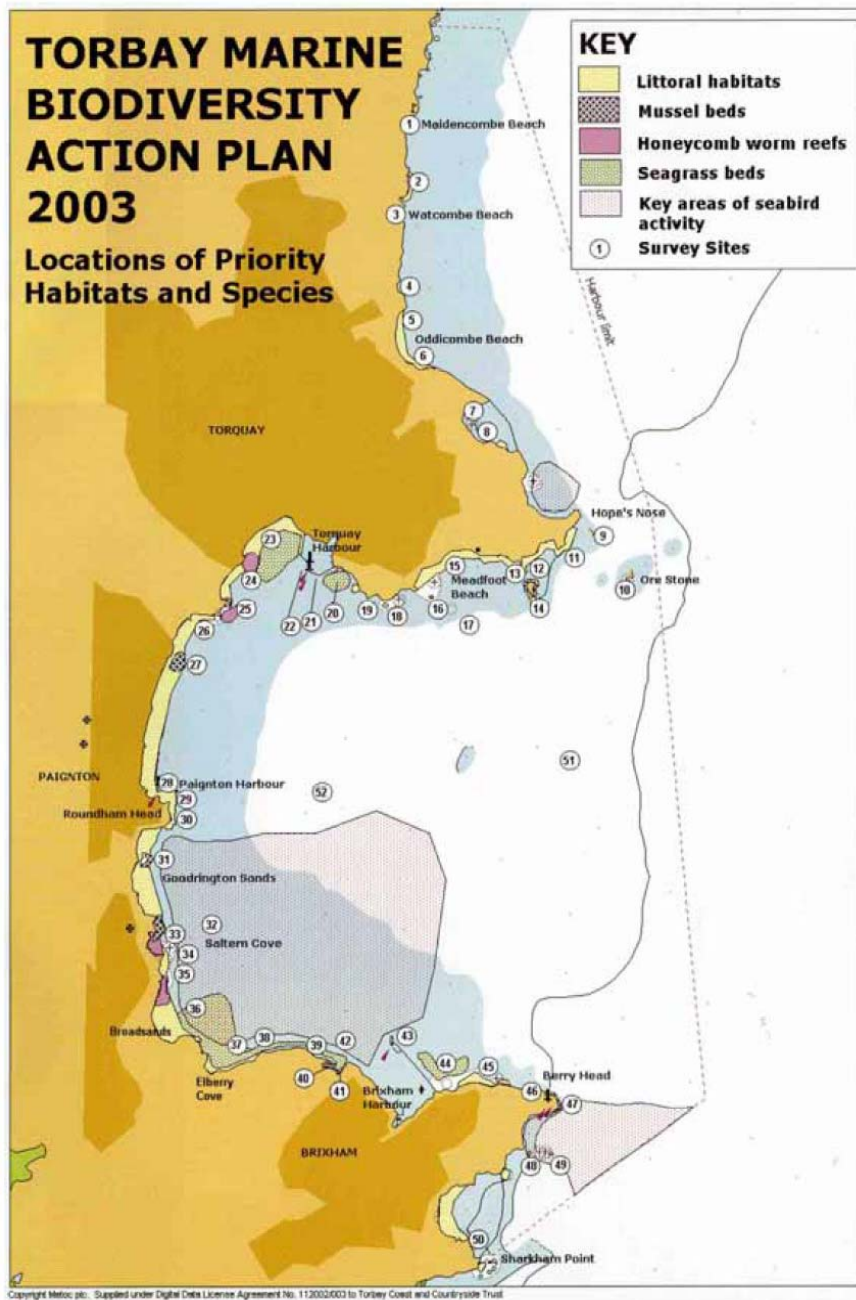
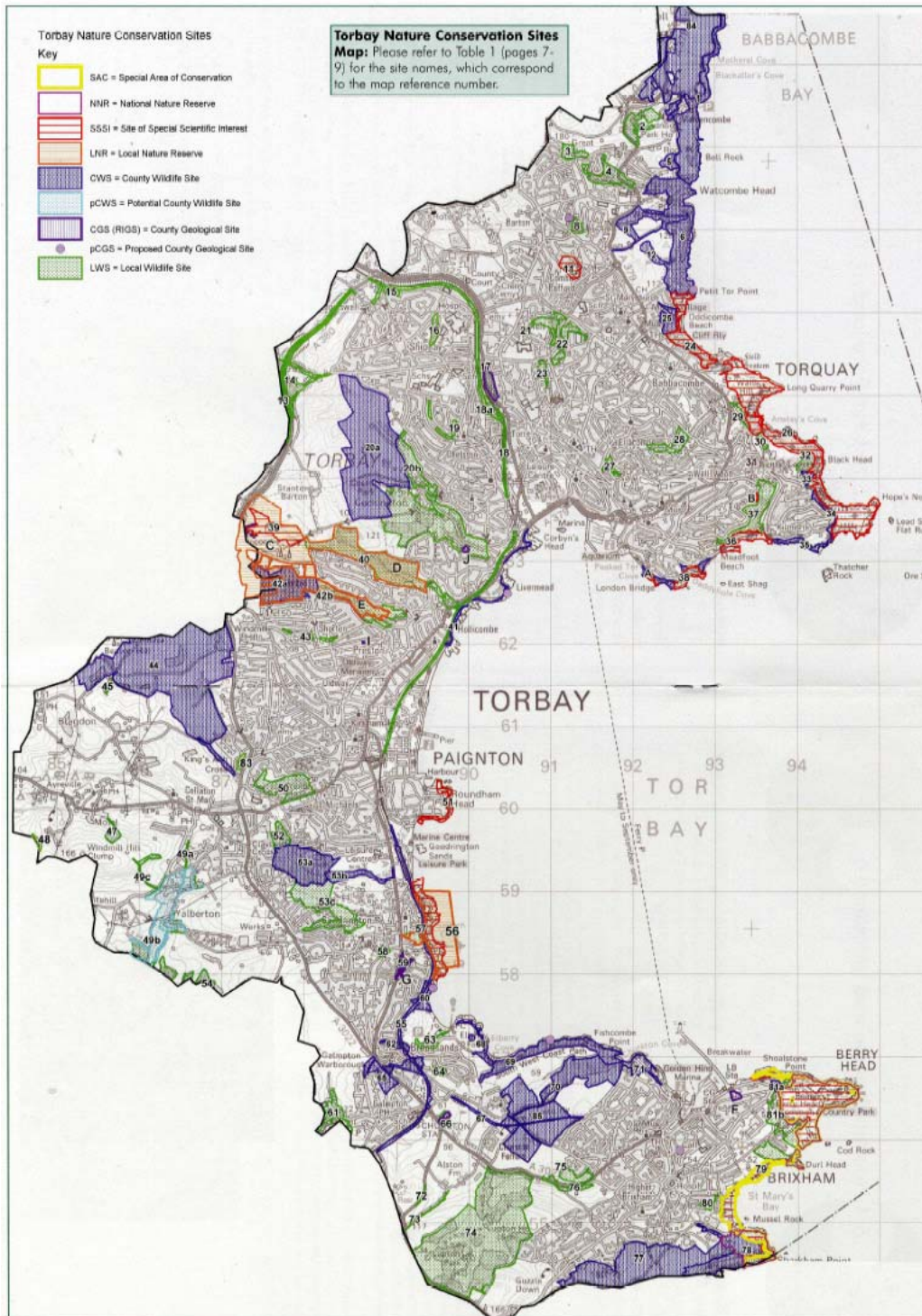


Figure 3.12: Key marine habitats of Torbay<sup>99</sup>

### 3.2.12 Torbay's Nature Conservation Sites

Torbay contains a number of designations allocated at different levels from local to national and international. These are shown in Figure 3.13.

<sup>99</sup> The Torbay Marine Biodiversity Action Plan



Source Torbay Wildlife Sites Review (1998) and the Devon Biodiversity Records Centre (DBRC). Sites of nature conservation interest may change status over time, please consult DBRC on [dbrc@devonwildliferecord.org](http://dbrc@devonwildliferecord.org) for accurate up-to-date information. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of HMSO/Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Torbay Council Licence No. 100022695.

**Figure 3.13: Nature conservation sites within Torbay**

Locally allocated sites include 50 LWS and 31 CWS. These non-statutory sites are important in retaining green open space which has a high nature conservation value and provides opportunities for the public to have access to and learn about wildlife. A 1998 review<sup>100</sup> carried out survey work to identify the condition of those sites thought to be of concern, of which the majority required minor management (largely scrub clearance). This could be linked to a lack of awareness by landowners of the importance of such sites and the management required.

Of more concern was the recognition that two County and two LWS were reduced in size over the period 1991-1998 and their continued inclusion as LWS or CWS has been brought into question. The sites were only identified as of wildlife importance after the Torbay Local Plan had designated them for housing. Three of the wildlife sites reduced in size as a result of pressure for housing development. Recognition of the importance of maintaining the number of breeding pairs of Cirl Bunting has increased over recent years. As the population has recovered the criteria for designating CWS has been amended from four breeding pairs up to six. This has resulted in the deletion of a further four CWS in Torbay as a result of an RSPB survey undertaken in 2002/2003.

Torbay also has four Local Nature Reserves (LNRs) at Occombe Valley Woods, Occombe Farm, Scadson Woods and Saltern Cove. Each is designated by Torbay Council and provides opportunities for people to learn about and enjoy these areas of local wildlife and their geological features.

Land to the east and west of Brixham is part of the South Devon Area of Outstanding Natural Beauty (AONB) that stretches around the coast through Dartmouth, Ivybridge to Wembury, south of Plymouth. The area is recognised for its 'rugged cliffs, sandy coves, peaceful countryside, pretty villages, rolling hills, colourful hedgebanks and secretive estuaries'<sup>101</sup>. The management plan associated with this area therefore aims to maintain this landscape and biodiversity whilst providing sustainable economic and social opportunities through careful management of farming, recreation, access, planning and developments.

Torbay has a number of Important Geological sites<sup>102</sup>. There are six existing official Regionally Important Geological Sites RIGS with more pending approval. In Torbay the official RIGS are Quarry Woods Quarry in Cockington and Chapel Hill in Torre. In Paignton there are Goodrington Quarry and Road Cutting in Goodrington and Barcombe Mews Quarry in Shorton. In Brixham the RIGS sites are Breakwater Quarry in Brixham and Brokenbury Quarry in Churston Ferrers.

Torbay has 12 SSSIs the condition of which is monitored by Natural England. The condition of SSSIs in the South West Region, Devon and Torbay is shown in Table 3.3 it is apparent from these figures that in comparison with Devon and the South

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<sup>100</sup> Torbay Wildlife Sites Review, Devon Wildlife Trust 1998

<sup>101</sup> South Devon AONB Partnership (2004) 'South Devon Area of Outstanding Natural Beauty: Management Plan 2004-2009'

<sup>102</sup> 24Kevin Page, Devon Regionally Important Geological Sites (RIGS) Group, Geologically Important Sites, Personal Communication, April 2005

West, Torbay’s SSSIs are in relatively good condition with a higher proportion of area in favourable condition. Those areas in Torbay experiencing unfavourable conditions are generally noted to be in need of scrub clearance and increased grazing requirements. There is evidence of an improvement with much of over half of these areas in unfavourable recovering condition.

**Table 3.3: Condition of SSSIs in the South West, Devon and Torbay<sup>103</sup>**

Area	% Area meeting Public Services Agreement target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed
South West	79.20	51.43	27.77	14.55	6.15	0.10
Devon	78.47	40.88	37.59	14.72	6.80	0.02
Torbay	91.89	83.19	8.69	6.30	0.00	1.82

The Candidate Special Area of Conservation (cSAC) / Special Area of Conservation (SAC) which stretches from Berry Head to Sharkham Point is designated under the European Habitats Directive for a number of reasons including the presence of Annex I Habitats (European dry heaths and Semi-natural dry grasslands and scrubland facies) and the largest UK population of Annex II species the Greater Horseshoe Bat. Within Torbay the colony of Greater Horseshoe Bats at Berry Head is the key issue of concern, particularly the amount of appropriate feeding habitat available to the colony and the specific temperature conditions in the main nursery roost.

Because both of these are sub-optimal the colony is one of the least productive in England. Management effort is directed mainly at improving the amount of feeding habitat by providing traditional cattle-grazed pasture and hedgerows in the close vicinity. The redevelopment of the former Dolphin Holiday Camp is an example of how appropriate land management can support the colony at Berry Head. Detailed research has been carried out to map the colony’s feeding areas, which lie within a 25km radius of Berry Head.

Berry Head itself is a particularly sensitive area with a number of designations including SSSI, Special Protection Area (SPA) (to protect seabird colonies from disturbance by sea craft during breeding season) a Candidate Special Area of Conservation, a National Nature Reserve (for importance in wildlife habitat and geological formations) and an Area of Outstanding Natural Beauty. The key biodiversity assets of Berry Head are outlined below<sup>104</sup>:

- Nursery colony and hibernaculum of Greater Horseshoe Bats (GHB) and their associated forage areas

<sup>103</sup> Condition of SSSI data from Natural England website (2008)

<sup>104</sup> Coast and Countryside Trust 2005

- The largest colony of Guillemots on the Channel coast
- Calcareous grassland flora, with 9 nationally scarce species present
- Area of Outstanding Natural Beauty
- Submarine Caves

Torbay Coast and Countryside Trust took over the site in 2001 when it became a National Nature Reserve and gained lottery funding to carry out an in-depth study of the site. Its findings included:

- Conservation grazing needs to be extended over approximately 80% of the site (cattle and goats currently graze approx. 10%)
- The proliferation of signs, the current location of the car park and scrub invasion damage the landscape and need to be removed or relocated
- A new interpretation scheme is needed to improve people's understanding of the heritage, including a relocated Visitor Centre
- The Napoleonic structures need to be protected from damage by people and invasive plants

Based upon this work a comprehensive management plan for the site is currently being developed and this will set out a long term vision to protect these important assets.

In addition to land-based designations Torbay has a diverse marine life and has been designated as one of the 28 sensitive marine areas by English Nature. Its designations include:

- The underwater Local Nature Reserve and SSSI of Saltern Cove, designated as such for its marine geological features.
- Candidate Special Area of Conservation at Berry Head to Sharkham Point
- 6 coastal SSSIs
- Several coastal County Wildlife Sites

### **3.2.13 Protected Bird Species in Torbay**

Torbay has many endangered bird species. The most endangered birds found in Torbay are those listed in Annex 1 of the EC Birds Directive, as shown in Table 3.4.

The wintering Divers, Grebes and Sea Ducks require safe undisturbed winter feeding areas between November 1st and April 1st from Goodrington South end of South Sands to Seven Quarries. This produces a conflict of interest with windsurfers, jet skiers and kite surfers. Fishing restrictions in this area would also enhance the fish nursery and cut out the threat of birds being trapped in gill nets.

There are many more endangered bird species found in Torbay that are not on the Annex 1 list above. These include species that are listed as UK Birds of Conservation Concern (BOCC). Species listed on the BOCC Red List are shown in Table 3.5 below.



**Table 3.4: Annex 1 EC Birds Directive 28 Species found in Torbay<sup>105</sup>**

Species	Wintering	Breeding	Migration
Red-throated Diver	*		*
Black-throated Diver	*		*
Great Northern Diver	*		*
Slavonian Grebe	*		*
Balearic Shearwater			*
Storm Petrel			*
Little egret	*		*
Merlin	*		*
Peregrine	*	*	
Bar-tailed Godwit			*
Mediterranean Gull	*		*
Sandwich tern			*
Common tern			*
Arctic Tern			*
Little Tern			*
Black Tern			*
Kingfisher	*		
Woodlark	*		
Dartford Warbler	*		

Species on the BOCC Amber list include Barn Owl, Cormorant, Dunnock, Fulmar, Goldcrest, Green woodpecker, Grey Wagtail, Guillemot, Herring Gull, House Martin, Kestrel, Kittiwake, Lesser black backed Gull, Meadow Pipit, Mistle thrush, Mute Swan, Peregrine, Shag, Stock Dove, Stonechat, Swallow, Willow Warbler.

**Table 3.5: Torbay species on the UK BOCC Red List**

Species	Where found in Torbay	Management requirements
Bullfinch	Throughout Torbay	
House Sparrow	Urban Areas and farmland	
Linnet	Coastal and farmland	Stubble fields in winter, conservation headlands for breeding
Skylark	Farmland	Stubble fields in winter, conservation headlands for breeding
Song Thrush	Throughout Torbay	Gardens with no pesticides or predator control (cats)
Spotted Flycatcher	No longer breeds – passage many areas	

<sup>105</sup> EC Birds Directive (79/409/EEC) 1979

<b>Species</b>	<b>Where found in Torbay</b>	<b>Management requirements</b>
Starling	Throughout Torbay	
Yellow Hammer	Farmland on outskirts of Torbay	Stubble fields in winter, conservation headlands for breeding
Girl Bunting	Farmland	Low intensity mixed farmland, Stubble fields in winter



## 3.3 Climatic Factors

### 3.3.1 Introduction

The evidence for climate change is irrefutable and the 2007 Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) has concluded that it is very likely that human activities are its main cause. The greenhouse effect naturally traps heat in the atmosphere and keeps Earth at a comfortable temperature. It is being enhanced by the release of greenhouse gases (GHGs) from the burning of fossil fuels to supply electricity and heat to our homes and businesses and to provide our transport requirements. This enhancement of the greenhouse effect is warming our planet<sup>106</sup>.

In signing The Devon, Plymouth and Torbay Declaration on Climate Change and Fuel Poverty, Torbay Council has demonstrated that it acknowledges climate change is occurring and is aware of its potential effects on the region's economy, society and environment. In response to the Declaration, Torbay Council has produced a Climate Change Strategy for Torbay.

The Climate Change Strategy for Torbay identifies the areas for action required to implement the climate change mitigation and adaptation aspirations of the 2007 Torbay Community Plan. Implementation of the Strategy will reduce Torbay's contribution to climate change, prepare the community of Torbay for the impacts of the inevitable climate change that is already built into the atmospheric system, and provide Torbay with a more sustainable future.

### 3.3.2 Torbay's Carbon Emissions

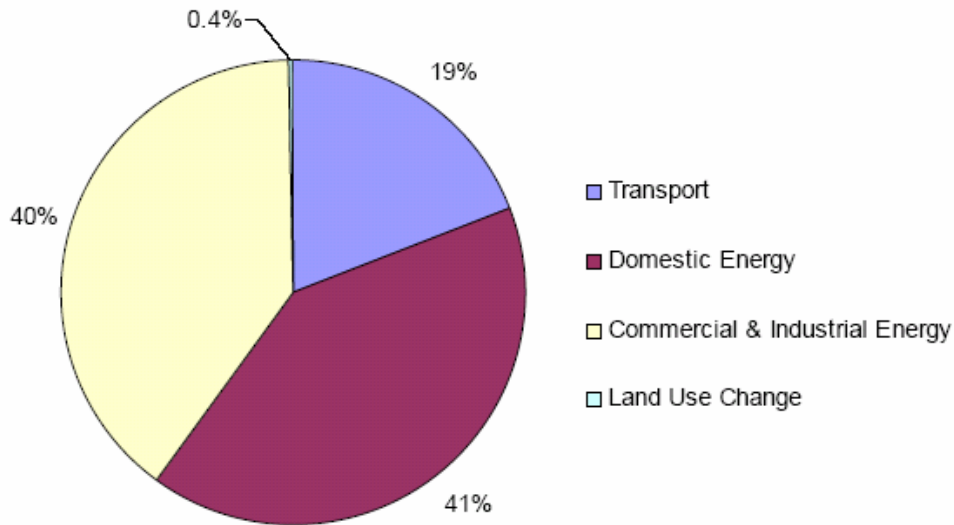
Torbay's total carbon dioxide (CO<sub>2</sub>) emissions for 2005/06 were 750.58 thousand tonnes (kt)<sup>107</sup>. The sectoral split shows that the majority of these emissions are derived almost equally from the energy used within the domestic and commercial/industrial sectors (Figure 3.14)<sup>108</sup>. The Torbay Climate change strategy has set a target to reduce CO<sub>2</sub> emissions from activities in Torbay by 30% from 1990 levels by 2020 and at least 60% by 2050.

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<sup>106</sup> A Climate Change Strategy for Torbay 2008 - 2013

<sup>107</sup> DEFRA e-Digest Statistics about: Climate Change 2007

<sup>108</sup> A Climate Change Strategy for Torbay 2008 - 2013



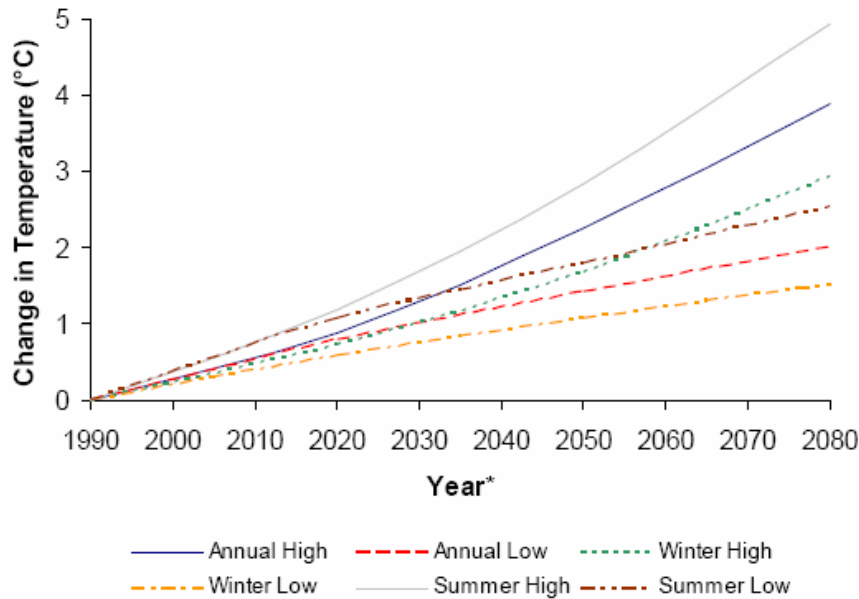
**Figure 3.14: Components of Torbay’s Carbon Footprint 2005**

### 3.3.3 Climate Change Consequences

The UK Climate Impacts Programme (UKCIP) provides climate change prediction data at a 50 km resolution<sup>109</sup>, which have been used to identify the expected changes in Torbay’s climate from 1990 to 2080. Figure 3.15 shows high and low GHG emission scenarios; it is predicted that the average annual temperature will be up to 4°C higher by 2080 than it was in 1990. This will lead to a 50% reduction in summer rainfall and a 20% increase in winter rainfall as well as an increase in sea level of up to 90 centimetres<sup>110</sup>. Changes to our climate on this scale will have wide ranging impacts upon agricultural practices, water resources, coastal defences, transport, public health, wildlife, landscape, and the make-up of Torbay’s economy.

<sup>109</sup> A Climate Change Strategy for Torbay 2008 - 2013

<sup>110</sup> Climate Change Effects in Torbay and Beyond, Torbay website accessed in October 08



**Figure 3.15: Predicted change in Torbay's annual, summer and winter temperatures to 2080**

### 3.3.4 Climate Change Mitigation Measures

Reducing the use of fossil fuel based energy is the most important action that any individual or business can make towards reducing their carbon footprint. 80% of Torbay's carbon emissions are derived equally from the domestic sector and the commercial and industrial sector.

Cars are a major contributing factor to carbon emissions. The reduction of this source in Torbay can be achieved through the use of alternative, greener forms of fuel (biofuels and electric) or by reducing car use altogether. The take up of green fuels has not been high locally so the emphasis has been placed largely on reducing peoples need to travel by car. This can be achieved through a series of different measures including encouraging use of public transport, walking and cycling as alternatives to using the private car.

Travel Plans are an important factor in promoting sustainable forms of transport throughout Torbay. These act to encourage schools and businesses to provide on-site facilities, promote walking, cycling, public transport use and car sharing schemes to decrease single passenger car use. An increasing number of schools in Torbay are becoming involved in school travel plans including the new South Devon College. Occupation of this out-of-town site is subject to implementation of an appropriate travel plan to incorporate enhanced bus services, such as the 12A, cycle facilities and restrictions on parking.

### 3.3.5 Renewable Energy

Renewable energy defines power sources that are rapidly replaced by natural processes and emit no greenhouse gases or are carbon neutral over their life cycle.

Examples include sunlight (solar), hydropower, wind power (on shore and off shore), bio-mass (crops that are burned for energy), tidal or wave energy.

In 2001, the UK government provided funding for the development of renewable energies as part of its approach to sustainable development and within the context of the UK's climate change programme. The government's target is that the contribution of licensed electricity sales from renewables will have risen to 10% by 2010.

The target for the South West is that by 2010 11-15% of licensed electricity will be produced from renewable sources. This is a challenging target as currently only 1.3% of electricity in the region is generated from renewable sources<sup>111</sup>.

The South West region has huge potential for renewable energy sources and has been in the forefront of wind power schemes, housing the first ever commercial wind farm in Cornwall in 1991<sup>112</sup>. In addition to this there are a number of smaller schemes for more unusual sources of renewable energy such as hydro sites, renewable energy plants for biomass, waste - to energy, ground sourced heat pumps, solar electric and solar water heating systems.

There are a number of barriers to improving the generation of renewable energy recognised by the Regional Renewable Energy Strategy for the South West of England<sup>113</sup>. These are outlined below:

- Some lesser-developed technologies are expensive to install e.g. biomass, combined heat and power (CHP), solar photo voltaic (PV) and wave power.
- Electrical network upgrade required to handle power from different sources.
- Small power generating projects can find connection to the local distribution system to be time consuming and costly. For example for those wishing to sell power from their own PV system, a new and costly upgrade to the electricity meter is required to allow electricity to be exported.
- Biomass fuel distribution is limited by a lack of heating networks and poor marketing.
- Electrical storage technologies need to be cheaper and more accessible in order that small scale and intermittent renewable energy suppliers can be more viable.

energy schemes being too easily rejected. The Devon Structure Plan 2001- 2016 highlights a target of 151 MW of electricity to be produced through land based renewable sources by 2010. Its policy CO12 (Will be replaced by policy RE1 of the RSS) actively encourages provision of renewable energy development . The majority of the proposed wind energy schemes are located in North Devon. However, plans have been put forward for small-scale schemes at Bradworthy and at Goveton, South Hams. There are no sites designated for wind based energy production along the South Devon coastline.

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<sup>111</sup> South West of England Regional Development Agency, Renewable energy 2008

<sup>112</sup> Regen SW (2003) Regional Renewable Energy Strategy of the South West of England 2003-2010

<sup>113</sup> Ibid

It should be recognised that in Torbay there are limited opportunities for development of wind energy due to the high proportion of urban areas and the high quality (of largely designated) landscapes which make up a significant proportion of the non-urbanised area. There remain opportunities for alternative technologies other than wind power. However these technologies, as recognised above, need further development over time in order to make them an economically viable and practical option. One such option is the recognised potential for wave and tide energy. Technology is being developed for such options through, for example a trial wave hub off North Cornwall to collect data on the potential of such means. Although this option is in early stages of development they should not be discounted from future use in areas such as Torbay, where wind farms may be impractical given the urban nature and landscape value of the area.

The most realistic option for Torbay to contribute to renewable energy in the immediate future is through adaptations to energy supply infrastructure to make renewable energy sources more accessible.

At present, an offshore wind or wave farm would have to be located outside of Torbay's jurisdiction due to the low wave and wind power densities experienced within and immediately outside the Bay. As energy prices continue to rise, and the technologies mature, wave and offshore wind power around the Bay may become an economically viable option for the future. In the meantime it is important that the planning process is flexible enough to allow the construction of the land-based infrastructure required to connect offshore energy production systems to the electrical grid.

## 3.4 Cultural Heritage and Landscape

### 3.4.1 Landscape: The Regional Context

The South West has a varied range of landscapes. The Countryside Agency has identified 30 Character Areas in the region. The most distinctive to the region include Moorlands and granite landscapes (Dartmoor and Exmoor), chalk and limestone landscapes (Mendips & Wiltshire), lowland heaths of Dorset, Somerset Levels and Moors, woodlands and orchards. A large proportion of the landscapes in this region comprises of a complex of farmed landscapes punctuated by field boundaries of hedge banks, mixed hedgerows and stone walls acting as a reminder of the historic patterns of farming<sup>114</sup>.

Due to its peninsula location the region also has a number of water-based landscapes recognised by the Countryside Agency as coastal landscapes, open sea, estuaries and river systems and inland water. 37% of the South West region is protected by Landscape designations, including the 2 National Parks of Dartmoor and Exmoor, and all or part of 14 AONBs<sup>115</sup>.

### 3.4.2 Landscape: The Local Context

Torbay has a unique relationship between landscapes comprising largely of seascapes, urban and rural nature. It is the combination of these elements which make Torbay an attractive tourist resort. The bay is bounded at either end by Hopes Nose and Berry Head which comprise of hard limestone headlands. The bay itself is created by erosion of the underlying softer sandstones which have created long sandy stretches of beaches on what is now known as the English Riviera. The Torbay coastline forms part of the South West Coast Path, one of 15 National Trails in England and Wales that provide long distance walking routes through fine areas of landscape.

At present Torbay is classified at a County level as falling within the Character Area 'Tourist Riviera'. This stretches from Dawlish Warren to Berry Head, incorporating all of Torbay. The main characteristics are identified below<sup>116</sup>.

#### Characteristics of 'Tourist Riviera'

- Extensive coastal development of resorts and associated tourist infrastructure
- Elegant seafront parks, promenades, palms, Pines, white 'Riviera' buildings
- Small scale, dissected hilly landscape in hinterland
- Tidal Teign Estuary, largely undeveloped
- Coastal cliffs, ranging from red sandstone to limestone headlands
- Steep urban areas overlooking the bay, estuary and harbours

<sup>114</sup> Our Environment Our Future 2004 - 2014, South West Regional Assembly (July 2004)

<sup>115</sup> The Countryside Agency (2005) The State of the Countryside in the South West 2004

<sup>116</sup> Devon County Council (2002) 'The Devon Landscape'

The exception to the rule in terms of white Riviera style buildings is Brixham which has a less formal feel associated with its roots in the fishing industry. The urban environment climbs steeply inland to provide views of the harbour and bay whilst creating a dramatic backdrop when viewed from the sea.

The area surrounding Torbay is characterised by a mix of small farms, orchards, a number of caravan sites, industrial estates and seasonal tourist markets. It is noted that this is perhaps the most vulnerable area in this character zone. It is suggested that the conservation and strengthening of existing features such as hedgerow networks could aid in maintaining the integrity of this area.

Agriculture plays an important role in the landscapes in the periphery of Torbay's built up area accounting for more than half of the undeveloped land of Torbay. Due to the scarcity of high quality agricultural land in this area care should be taken to ensure that such areas are identified and protected when considering development proposals.

Further work on Character Areas of Torbay is in preparation to identify a number of smaller units as sub-units of the 'Tourist Riviera' as identified above. This work will be done in collaboration with other districts in the County to ensure consistency with approaches across authority boundaries. In addition to the Character Areas identified by the Countryside Agency much of Torbay's landscape is protected by various designations including two County designations; the Areas of Great Landscape Value (AGLV) designation and the Coastal Preservation Areas. The former consists of high land or parts of valley systems with a distinctive local character and the latter designed to safeguard unspoilt stretches of coastline (see Figure 3.16).

Additional green wedges are created by the Countryside Zones which provide an important function preventing the merging of urban areas and settlements. The land surrounding Brixham is designated as the South Devon AONB (see Figure 3.16). There is a strong requirement to protect these areas from increased traffic, lighting, noise and pollution<sup>117</sup>.

It is recognised that there are a certain number of pressures on the AONB, in particular, pressure for development in Plymouth and Torbay which have resulted in a number of developments and allocations coming forward on or near the AONB boundary. There is increasing pressure to convert barns to residential use, in particular where the farming community are working on sites of marginal economic feasibility and therefore need to diversify. There is also a recognised need to address light pollution.

The natural environment is therefore changing with a gradual decline of formerly common wildlife species due to changes in the farmed landscapes of the AONB. Although there have been benefits from take up of agro-environment schemes, there remain concerns that the schemes such as the countryside stewardship have been under-resourced.

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<sup>117</sup> South Devon Area of Outstanding Natural Beauty Management Plan 2009-2014

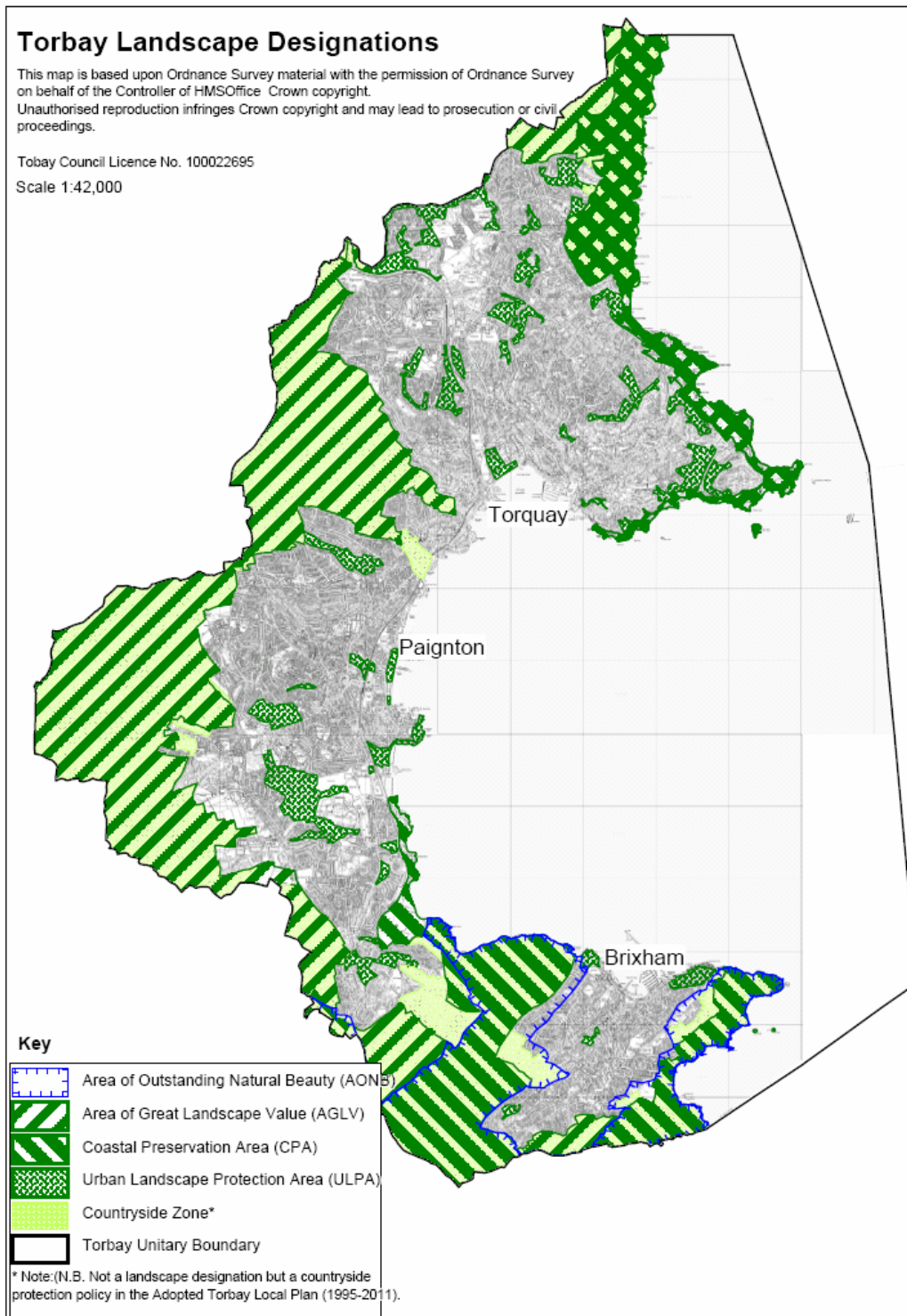


Landscape value is not just restricted to the countryside. In addition Torbay has 46 Urban Landscape Protection Areas (ULPAs) designated on a local level set in or bordering the urban area. They can be vantage points, amenity open spaces or landmarks (see Figure 3.16). There is also a recognised need to protect urban green spaces including public parks and amenity areas which are valuable for their contribution to the quality of the built environment.

This high concentration of designated landscapes has been recognised by Devon County Council as a constraint upon development when allocating housing targets.

Trees provide an important means by which to bind together elements of the landscape. The stock of trees in Torbay is declining as few new are saplings planted. The Torbay Community Action Plan proposes recruiting 20 tree wardens to act as community representatives to raise awareness of trees in the environment. There are two areas of ancient woodland identified by English Nature in Rams Hill Copse and Clennon Hill in Paignton. Additional data is required to assess the condition of the tree stock in Torbay.

The Torbay coast line is part of the South West Coast Path (one of 15 National Trails in England and Wales).



**Figure 3.16: Landscape designations in Torbay**

### 3.4.3 Heritage: The Regional Context

The historic environment provides us with links to our past through a number of forms including building styles, settlement form and built archaeology as well as

human-influenced landscape. Heritage also plays an important role in the tourist industry encouraging a significant number of visitors to the South West. It is important to underline that the historic environment encompasses designated assets and undesignated features of local historic interest, as well as the potential for as yet unrecorded archaeological interest.

The South West has a very high concentration of protected sites. The region's area is 18% of the total land area of England but has 36% of the country's Scheduled Ancient Monuments (6,903), 24% of the listed buildings (88,865) and 17% of all conservation areas (1,509)<sup>118</sup>. Over the last ten years £334 million has been given by Heritage Lottery fund to 935 projects in the South West by Heritage Lottery Fund. Whilst this has aided a lot of beneficial work, there is still a recognised lack of Local Authority resources to deal with the number of buildings at risk. Success in securing funds in Torbay has remained relatively low compared to the South West as a whole with £860,000 from Heritage Lottery fund for 15 projects. Torre Abbey has secured its bid and the Palace theatre is currently under consideration.

Other assets of importance in the South West as identified by the Regional Assembly include Historic Landscapes (field systems and settlement patterns), (out of 16) nationally designated World Heritage Sites, a number of historic settlements (including Bristol, Bath, Exeter and Plymouth), 296 Historic Parks and Gardens, important trees and woodlands, 43 historic battlefields, 20 marine archaeological resources, a number of historic harbours, remnant industrial landscapes and military landscapes.

### 3.4.4 Heritage: The Local Context

Within Torbay the local distinctiveness of this historic area is fundamental in maintaining its role as a tourist resort, a significant sector of the local economy. Local Heritage is promoted through the three registered museums, Torquay Museum (17,000 visitors a year), Brixham heritage museum (8,000 visitors a year) and Torre Abbey (20,000 visitors a year). Table 3.6 below sets out the key assets of Torbay into themes that tell the story of Torbay's Heritage.

**Table 3.6: Key Heritage Themes and Assets of Torbay<sup>119</sup>**

Theme	Key Heritage Assets
The making of the Bay and its original inhabitants	Geological Sites of Special Scientific Interest Limestone grassland plant communities Gull Buntings Greater horseshoe Bats Marine life Coastal landscapes
The first humans	Kents Cavern

<sup>118</sup> Our Environment: Our Future' Regional Strategy for the South West 2004 – 2014, South west Regional Assembly and South West Regional Environment Network

<sup>119</sup> Torbay Heritage Strategy 2004, Torbay Coast and Countryside Trust

Theme	Key Heritage Assets
	Wall's Hill Broad sands Tomb Brixham Cavern
Early settlement /rural life	Torre Abbey St Michael's Chapel Paignton Bishop's Palace Ancient lanes and local archaeology Cockington Court and Village Historic town centres Higher Brixham Churston Ferrers Galmpton Orchards, rural landscapes Ocombe Farm Devon dialects and customs
Maritime and industrial life	Brixham Harbour Brixham Heritage Fleet Paignton Harbour Shipwrecks Cockington Forge
A nation at war	Berry head ancient monument Battery Gardens ancient monument WWII slipways, Torquay Harbour
The tourist Resort / Urban life	Torquay Harbour Victorian Villas Markets Churches: <ul style="list-style-type: none"> <li>• Babbacombe, All Saints</li> <li>• Montpelier road, St. John the Evangelist</li> </ul> Oldway Mansion and gardens The Pavilion Paignton Pier Torbay cinema The Palace Theatre Princess Gardens /Rock Walk Coastal walks Railway heritage Brunel Woods
Famous inhabitants and connections	Agatha Christie / Greenway Isambard Kingdom Brunel /Brunel Woods William Froude Rudyard Kipling Rev. Lyte William of Orange William Pengelly P. Singer The Cary Family The Palk Family

Nationally important structures, habitats, geology, species and collections are key strengths for Torbay’s heritage. There are also high quality urban and natural landscapes, including the marine environment. Strong links between economy, heritage and culture are recognised and Torbay’s heritage is considered to be a driver for regeneration initiatives. Large proportions of heritage assets are in public ownership and / or open to the public. Most of Torbay’s Heritage features are covered by statutory and advisory designations and there is a growing use of heritage assets for education and training.

There are, however, threats to this heritage which include:

- Reductions in the availability of grant support or lack of funding
- Difficulties of conserving landscape – scale features with multiple ownership
- Inappropriate use and over use
- Falling out of use
- Coastal erosion
- Incremental small – scale losses
- Haphazard development of heritage projects that fail to co-ordinate activities
- Insufficient community participation
- Uncertainty over the impacts of changing policy for example the Common Agricultural Policy.

Buildings which display Torbay’s heritage include Oldway Mansion, the Palace Theatre, the Pavilion, Paignton Town centre, Brixham and Torquay Harbour side area<sup>120</sup>.

There are a total of 24 conservation areas in Torbay, which have been designated due to their special architectural or historic character and which should be preserved or enhanced. These are listed below in Table 3.7 and shown on Figure 3.17.

**Table 3.7: Conservation Areas in Torbay**

Torquay Conservation Areas	Torquay Harbour, Warberries, Lincombes, Chelston, Cockington, St. Marychurch, Babbacombe downs, Maidencombe, Barton, Cary Park, Belgravia, Watcombe Park, Torre, Tormohun, Upton, Abbey Road
Paignton Conservation Areas	Old Paignton, Polsham Park, Roundham, Shorton
Brixham Conservation Areas	Churston Ferrers, Brixham Town, Higher Brixham, Galmpton

<sup>120</sup> Torbay Council (2004) ‘Chill Out it’s Your Life: Developing Torbay’s Culture’ – Draft

It is recognised that buildings in some of these areas, often of low density, are becoming subject to inappropriate development including extensions, changes in boundary features and building design. This has been exacerbated by the need for housing which has placed additional pressures for development. Torquay Harbour Conservation Area has a completed Management Plan and Character Appraisal, which actively seek to enhance and improve the existing character of the area. The Conservation Area covers 38 ha, including Harbour installations but excluding enclosed water. Within the Conservation area are examples of fine buildings and urban development from every decade from the end of the eighteenth century.

The Harbour is where the majority of the town's earliest buildings are to be found, providing evidence of the rapid transformation of Torquay from a small fishing village to a popular resort during the nineteenth century. Within the Conservation Area the following key features are located:

- Princess Park
- 80 listed buildings (covering nearly 150 properties, one listed grade 1 and two groups of grade 2)
- Items of architectural and historical interest (harbour installations, walls, gates etc.)
- Key buildings of historical value

The area as a whole is sub divided into five distinct sub areas: The Harbour and Coastal Fringe; Fleet Street; Madrepore Road, the Terraces and Bradons Hill Road West; Bradons Hill Road East and Lower Torwood; Park and Vane Hills.

As well as the recognised threats to buildings within the Conservation Areas, the most obvious non – building problems in the area include:

- Heavy traffic flows which conflict with pedestrian movement, especially in the Strand and Torwood Street Area
- Run down pedestrian links such as stairways and alleys
- Lack of co-ordinated interpretation of the historic environment, such as heritage trails and poor quality signage.

Torbay has 861 listed buildings of historic or architectural interest<sup>121</sup>. These cover a range of buildings including chapels, windmill towers, lodges and farm buildings as well as infrastructure such as garden walls, gate piers and defence structures such as ramparts and magazines of Berry Head. The Buildings at Risk register held by the Torbay Council<sup>122</sup> indicates that 44 of the listed buildings in Torbay are at risk (although this figure is subject change), of which 9 are in category 1, the highest risk. More information is needed on the state of repair of these buildings. The council is currently identifying the needs of these sites in order to organise funding proposals.

<sup>121</sup> English Heritage, The State of the South West's Historic Environment 2006

<sup>122</sup> Torbay Council, Buildings at Risk (BAR) survey 2004

Regionally in 2002-2003 nearly one in 12 listed buildings was subject to planning applications of which 89% were granted consent.

Two further areas of interest in terms of heritage include:

- Winner Street in Paignton; where funding was provided to restore traditional shop fronts, regenerating this area which has suffered decline through increasing numbers of vacancies, residential use and inappropriate shop fronts.
- Torquay Harbour Townscape Heritage Initiative; where Grant Aid has been awarded by the Heritage Lottery Fund to improve the built environment in and around Victoria Parade and Beacon Terrace. The aim is to encourage awareness of, and accessibility to, heritage for residents and visitors. Funding will be used to repair buildings and re-instate historic features to improve the streetscape.

The number of historic parks and gardens in Torbay has increased from three in 1983 (Watcombe Park, Castle Tor and Lupton Park) to six, with additional sites added in 1997 Oldway Mansion, Princes Gardens and Royal Terrace Gardens in 2001 and Barton Road Cemetery in 2002. The register of Parks and Gardens of Historic Interest is currently being reviewed by the University of York.

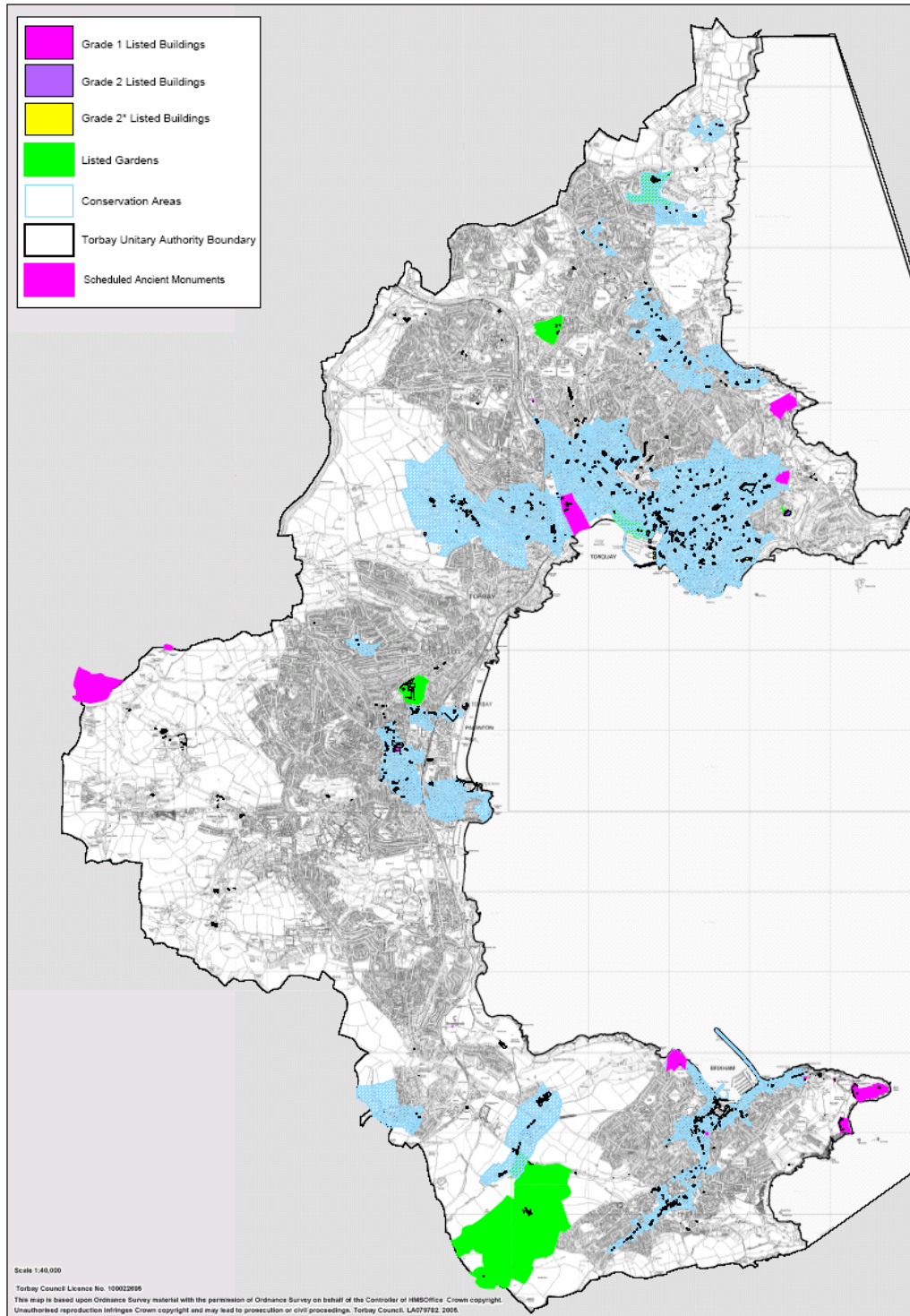
Torbay has some 13 Scheduled Ancient monuments<sup>123</sup> (see Figure 3.17) including buried sites and shipwrecks which are protected by law<sup>124</sup>. However there are also a large number of sites which do not hold such high levels of protection but are recorded for their archaeological value by the Historic Environment record.

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<sup>123</sup> English Heritage, Heritage Counts, the State of the South West's Historic Environment 2005

<sup>124</sup> Torbay Council (2004) Adopted Local Plan 1995-2011





**Figure 3.17: Torbay’s historic assets**

Note: listed buildings appear as back dots in this map due to its small size.

### **3.4.5 Streetscape and Urban Design**

Streetscape has been described as ‘the design quality of the street and its visual effect, particularly how the paved area (carriageway and footway) is laid out and treated’<sup>125</sup>. It includes the buildings, the street surface, and also the fixtures and fittings such as bus shelters, signage and planting schemes<sup>126</sup>.

English Heritage has highlighted the damaging effect of inappropriately located and designed transport infrastructure on the character of the wider landscape and public realm<sup>127</sup>. Torbay Streetscape Guidelines 2004 – 2007 outline the following problems:

1. There is a lack of an overall, co-ordinated strategy for Torbay’s streets;
2. Government guidance has favoured the car over pedestrians;
3. There is limited funding available for improvements;
4. There has been a gradual degradation of the streetscape;
5. Clutter;
6. Damage to streets by poorly reinstated utility works;
7. A low standard of maintenance;
8. Under –investment in the urban fabric and inappropriate advertising and signage.

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<sup>125</sup> CABE, Paving the Way 2005

<sup>126</sup> Torbay Council (2004) Torbay Streetscape Guidelines 2004 - 2007

<sup>127</sup> Streets for all South West, English Heritage, 2005

## 3.5 Waste

### 3.5.1 Waste Facilities in Torbay

Torbay Council has a statutory duty to collect domestic refuse from over 60,000 properties, and also offers a commercial waste collection service. A kerbside collection scheme is operated for household dry recyclables.

The council operates 63 recycling bank sites which receive materials such as paper, glass, cans, clothing and books. The recycling bank sites are well dispersed throughout Torquay, Paignton and Brixham (see Figure 3.18).

A Civic Amenity Recycling Centre (CARC) is based at Yalberton, Paignton. This provides a facility to recycle or dispose of most bulky household waste and garden waste, and provides a facility for commercial waste. Access to this site can be difficult at peak times due to its popularity, with localised traffic congestion in the vicinity of the site.

Until recently, a Material Reclamation Facility (MRF) was operated from the Yalberton site. Mixed dry recyclables from kerbside collections were sorted and compacted at the MRF, ready for transport to re-processing plants. However, in March 2007 a fire destroyed the Torbay MRF. Household dry recyclables are currently being sent for sorting at a privately run MRF located in Essex. This will continue as an interim measure whilst longer term options for dealing with dry recyclables are considered.

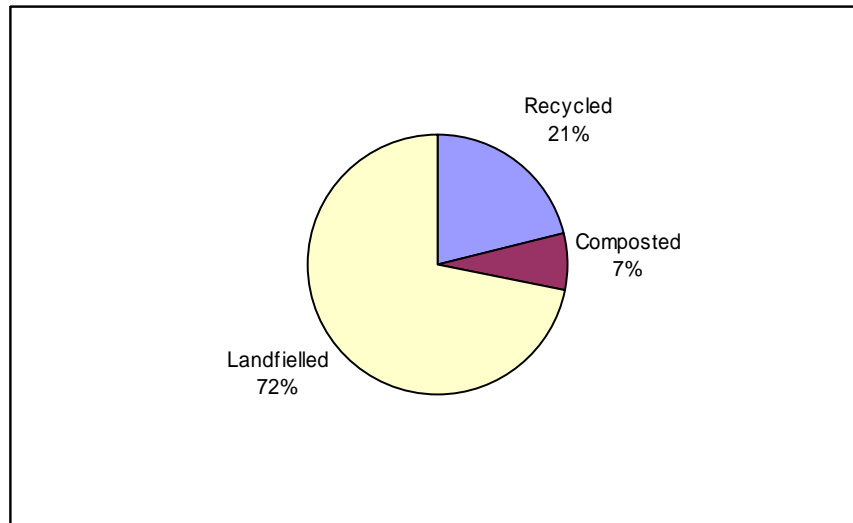
The Yalberton site is also the location of a transfer station, for the bulking and transportation of waste to a licensed landfill site at Heathfield, Teignbridge. The location of Torbay Transfer Station / CARC / MRF site is shown in Figure 3.18.

### 3.5.2 Household Waste in Torbay

In 2007/08 Torbay produced 64,564 tonnes of household waste, of which 21.1% were recycled and 6.99% were composted. The remaining 71.91% of household waste was sent to landfill (see Figure 3.19).

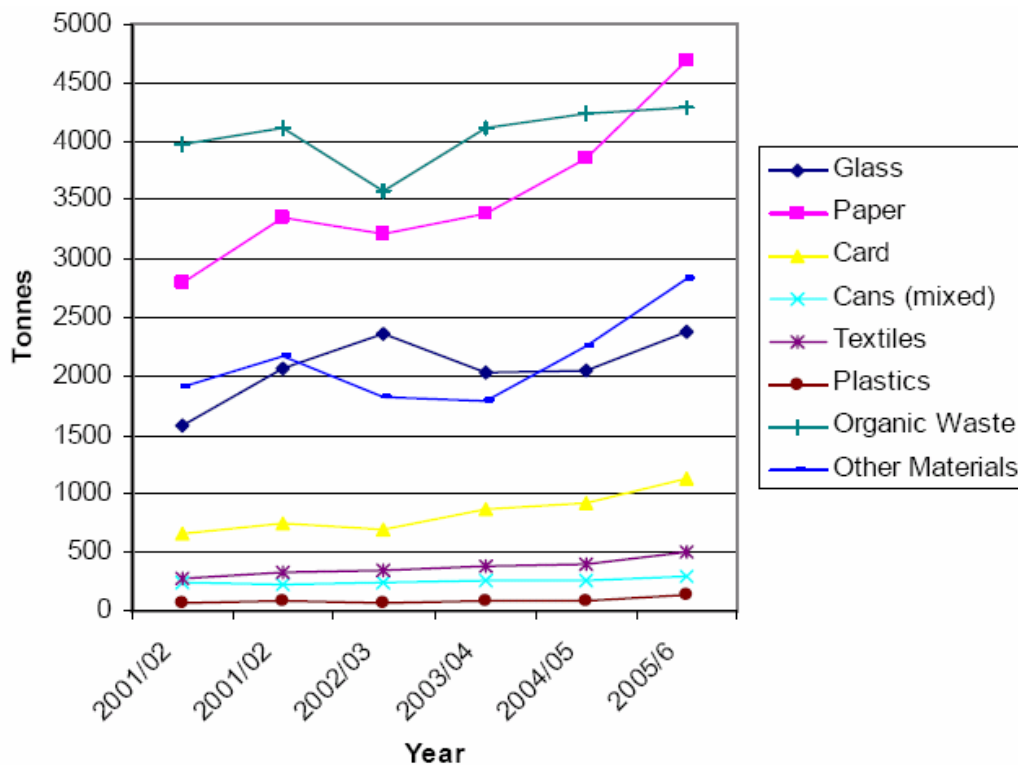


Figure 3.18: Location of recycling banks and Torbay Transfer Station



**Figure 3.19: Household Waste Disposal in Torbay 2007/08**

Most materials show a steady increase in amount recycled over recent years, as shown in Figure 3.7. However, for glass and organic (composted) waste, there are deviations from this trend in certain years.

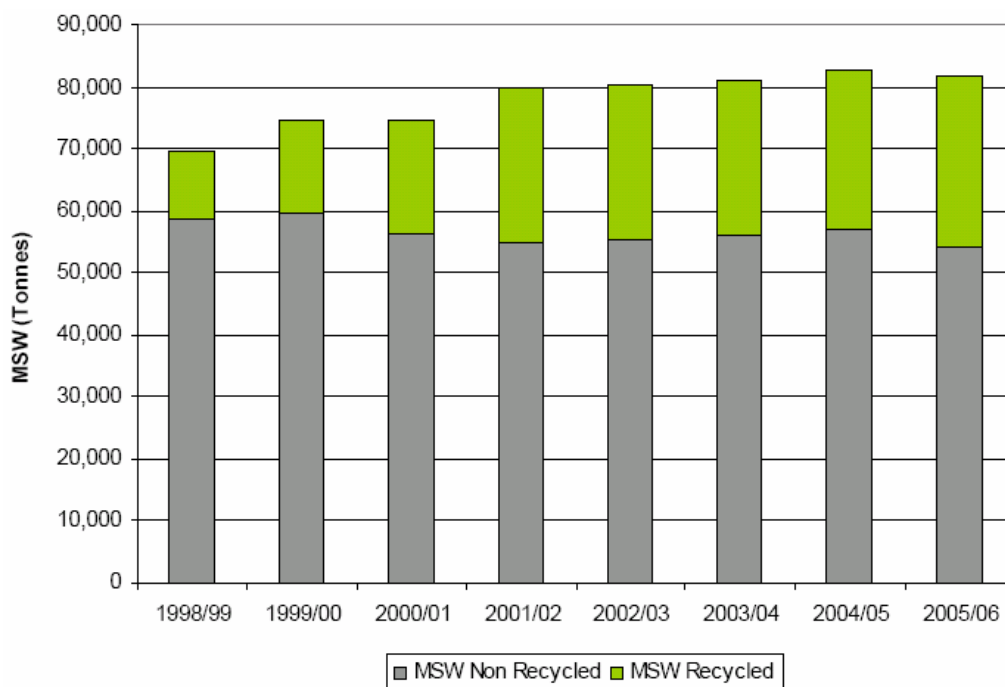


**Figure 3.20: Tonnes of household waste materials recycled in Torbay<sup>128</sup>**

<sup>128</sup> Municipal Waste Management Strategy for Torbay 2007 -2025

### 3.5.3 Municipal Waste in Torbay

Municipal Solid Waste (MSW) includes waste from households, municipal parks and gardens, beach cleansing, some commercial and industrial waste, materials resulting from the clearance of fly-tipped waste, and materials from recycling banks and the Civic Amenity Centre. The total MSW arising in 2007/08 is 78,720 tonnes and the proportion recycled / composted, from 1998/99 to 2005/06 is shown in Figure 3.22<sup>129</sup>.



**Figure 3.21: Tonnages of recycled and non recycled Municipal Solid Waste (MSW) in Torbay**

### 3.5.4 Waste Disposal to Landfill

There is currently no waste disposal facility within Torbay. Waste for disposal is transported to the nearest landfill site at Heathfield, Newton Abbot, within the boundaries of Teignbridge District Council.

The Heathfield landfill facility is operated by Viridor Waste Management. The site covers an area of 157.5 acres and is permitted to accept 450,000 tonnes of waste material per annum. Heathfield has planning permission for a further 3 million cubic metres of material giving an expected life to 2016. The landfill site employs 6 full time staff and also operates a division responsible for landfill gas extraction<sup>130</sup>. In 2005/06 waste from Torbay accounted for approximately 16% of the total waste sent to Heathfield for landfill.

<sup>129</sup> Municipal Waste Management Strategy for Torbay 2007 -2025

<sup>130</sup> Municipal Waste Management Strategy for Torbay 2007 -2025

The Heathfield site is registered to ISO14001. The current land fill site at Heathfield is fully lined and there has been no recorded impact on soil or water.

There are historic landfill sites within Torbay. Two former landfill sites are currently monitored due to the potential dangers from gaseous emissions into adjacent ground. There are, however, significant gas safety works installed at both sites. Barton Landfill site occupies a total area of 0.213 square km and is 22m deep. Yalberton is spread over 2 sites, with a total area of 0.316 square km and a depth of 13m to 15m. At present, there are no concerns regarding these two locations.

For very old landfill sites the information is limited. They are no longer monitored as the chemical reactions within them have ceased and there is no longer a danger from gas emissions. These areas will, however, fall within the investigations undertaken for part IIa of the 1990 Environmental Protection Act which concerns potentially contaminated land.

Recently Plymouth City Council, Devon County Council and Torbay Council have joined together as the South West Devon Waste Partnership. The councils have applied for government funding to help cover the costs of the providing a new waste treatment process.

### **3.5.5 Waste Transportation**

PPS 23 and PPS 10 advocate the Proximity Principle. The main emphasis is on a self-sufficiency approach to waste management on a regional and sub regional scale in order to reduce the transportation of waste. Torbay complies with proximity principle by transporting its waste for disposal to the nearest land fill site at Heathfield, Newton Abbot, Devon.

Garden and green waste is composted at a local farm in Marldon. Sub-regional outlets are also used for wood and scrap metal from the CARC site. Other recyclables can be transported longer distances, depending on the availability of outlets for sorting and re-processing and on market prices. Since the loss of the Torbay MRF due to a fire, mixed dry recyclables from kerbside collection and paper collected from recycling banks are being transported to a privately run MRF in Essex. Torbay does not have direct control over the final reprocessing destinations of output streams from this MRF.

All of Torbay's waste is transported by road. Torbay Council currently operates 11 refuse vehicles for the collection of domestic waste. Two 44 tonne articulated units are operated from Torbay Transfer Station for the daily transportation of waste for disposal at Heathfield. One 32 tonne hookloader vehicle is also operated at the Torbay Transfer Station and is used for the transfer of waste to Heathfield landfill on a supplementary basis when required<sup>131</sup>.

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<sup>131</sup> Municipal Waste Management Strategy for Torbay 2007 -2025



### **3.5.6 Minerals**

Torbay is served by a number of quarries in the surrounding area, which have long term reserves. Since the closure of Lummaton Quarry in 1989, Torbay has only one operational limestone quarry, located at Yalberton in Paignton. This operation is subject to the Review of Old Mineral Permissions procedure. It is not probable that any of the disused quarries in Torbay will be revived for mineral extraction. There is no need or scope for mineral excavation within or near to the urban area<sup>132</sup>.

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<sup>132</sup> Municipal Waste Management Strategy for Torbay 2007 -2025

## 3.6 Water

### 3.6.1 Flood Risk

Torbay has 17 watercourses covering 42 km in length<sup>133</sup> (see Figure 3.23), of which 13 discharge directly to the English Channel, 2 discharge to the River Dart, 1 discharges to the River Teign and 1 discharges to the public combined sewer system<sup>134</sup>.

Following severe flooding in 1999, the Galmpton watercourse was classified as a main river by the Environment Agency (EA)<sup>135</sup>. A further 7 watercourses (Higher Brixham, Clennon Valley, Churston, Yalberton, Victoria Stream, Occombe Valley and Aller Brook) were classed as critical ordinary watercourses by Torbay Council and the EA<sup>136</sup>. This was a result of their potential to put a large number of people and property at risk. In April 2006 these were re-classified to become Environment Agency main rivers<sup>137</sup>. The remaining 9 watercourses in Torbay are categorised as ordinary watercourses.

The main risks of flooding come from coastal and fluvial flooding as well as a proportion of incidents related to surface water runoff. The EA identifies a small number of potentially 'at risk' areas from fluvial and coastal flooding (see Figure 3.23). The EA classifications include:

- **Flood Zone 3:** Extent of a flood with an annual probability of flooding of 1% (1 in 100) or greater from rivers, and 0.5% (1 in 200) or greater from the sea, ignoring the presence of defences.
- **Flood Zone 2:** Extent of a flood with an annual probability of flooding of 0.1% (1 in 1000) or greater from rivers and the sea.
- **Flood Zone 1:** Land not identified in Zones 2 and 3 and has little or no risk.

Since May 1999 Torbay has suffered 8 incidences of major flooding which has caused 500 incidences of flooding to properties (although some properties included in this figure are counted more than once due to recurrent flooding). These areas are likely to be placed at increasing risk over future years as sea level continues to rise and more severe rain storms are predicted.

In 2007 Torbay Council produced a 'level 1' Strategic Flood Risk Assessment (SFRA). It informs the Local Development Framework and provides general guidance for planning officers, developers and other interested people about areas where flood risk is an issue. Further work is being undertaken to produce 'level 2' (SFRA) for key areas of high flood risk.

<sup>133</sup> Torbay Council (2004) 'Policy Statement on Flood and Coastal Defence'

<sup>134</sup> Torbay Council (2006) 'Draft Strategic Flood Risk Assessment'

<sup>135</sup> Ibid

<sup>136</sup> Torbay Council (2004) 'Policy Statement on Flood and Coastal Defence'

<sup>137</sup> Torbay Council (2006) 'Draft Strategic Flood Risk Assessment'

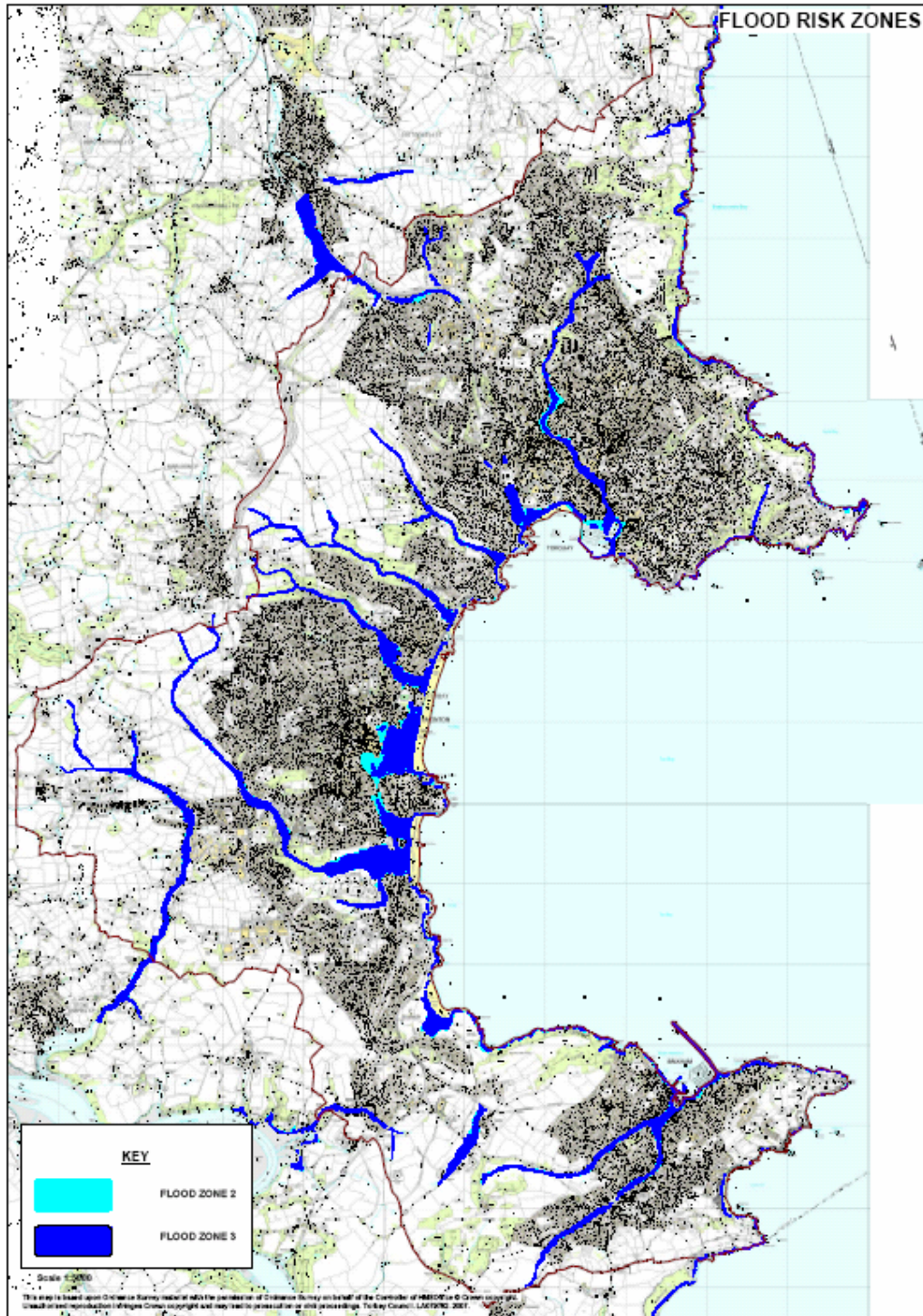


Figure 3.22 Watercourses and flood zones in Torbay

Key areas of Torbay with respect to flood risk are outlined below:

### **Torquay**

- Flooding in the Torquay Harbour from wave overtopping of the harbour wall caused by high tides in combination with easterly winds. At very high tides the surface water outfalls to the harbour become tidelocked, increasing the risk of flooding in the low lying areas around the harbour should a major storm occur.
- An area to the west of Torre Abbey and east of Torquay Station which includes the bowling green and recreational area and the intersection of Torbay and Rathmore Road. This area is currently protected by a sea wall (flood zone 2 and 3) but frequently experiences localised flooding particularly around Kings Drive which causes disruption to traffic flows. Torre Abbey Watercourse discharges directly to coastal waters. At high tides the discharge is restricted due to tidelocking, causing backing up. Torquay Recreation Ground is therefore susceptible to flooding from both the watercourse and coastal waters.
- There is a risk of flooding at Livermead from wave overtopping of the sea wall caused by high tides and easterly winds. Coastal flooding can result in the closure of the main road between Torquay and Paignton, causing traffic disruptions.
- Watercourse flooding has occurred on Torbay Road (Hollicombe watercourse), Teignmouth Road (River Fleet), Newton Road (Aller Brook) and Cockington (Cockington watercourse).

### **Paignton**

- High tides and easterly winds can cause wave overtopping at Preston and Paignton seafronts resulting in flooding.
- Paignton Esplanade stretching back to the low-lying area of Torbay Road and land either side. This area includes a concentration of holiday accommodation in and around Kernou Road, Adelphi Road and the Esplanade as well as a concentration of tourist related shops in Torbay Road. The majority of this area is covered by flood zone 3 with flood zone 2 stretching further into the south of Paignton. As well as a number of key road links, flood zone 2 also covers Paignton Railway Station, the bus station and a substantial area of car parking. Station Lane in particular is prone to frequent flooding as discussed below.
- Victoria Stream catchment is a problematic area as it is drained through a surface water system which discharges to coastal waters. Where high tides coincide with a storm the system is unable to discharge to coastal water hence causing flooding in areas such as Station Lane, Dartmouth Road, Adelphi Road, Queens Road and Sands Road. A flood alleviation scheme aims to address this through, for example, a new pumping station in Paignton, upsizing of culverts and sewers, installation of a tideflex valve and removal of

surface water connection to Station Lane Pumping Station. Following a successful bid to DEFRA, construction work for the flood alleviation scheme has now commenced.

- There are flood areas at Occombe Valley / Shorton Valley from the Occombe Valley main river.
- Flood risk maps indicate a fluvial flood zone extending from Clennon Hill to Goodrington Sands (flood zones 2 and 3). At high tides, the outfall from the Clennon Valley watercourse becomes tidelocked, increasing the risk of flooding during heavy rain. Historically this watercourse has suffered flooding to properties and highways including Kings Ash Road, Totnes Road and Dartmouth Road.
- There is a risk of tidal flooding in and around Goodrington Park from high tides and easterly winds causing overtopping of the seawall. There is a recognised need for remedial works to this wall and DEFRA funding has been secured to carry out this work in 2006/07.
- A small area to the north of Broadsands including parkland and car parking areas is at risk from flooding if wave overtopping of the seawall occurs.
- Land adjacent to the watercourse which flows through Collaton St Mary and Yalberton Industrial Estate could affect a small number of homes and businesses adjacent to the flood zone 2 and 3.
- Galmpton Watercourse, although only a small main river has in the past been highly susceptible to flooding. It has recently undergone remedial works by the Environment Agency to provide new and replacement culverts which has proved to be successful.

### **Brixham**

- Areas in Brixham harbour around Furze Lane, The Strand and Pump Street are included in flood zone 2 and 3. This area currently experiences little flooding except in times of exceptionally high tides.
- Within Brixham the Higher Brixham Watercourse has a history of flooding and although has only a small floodplain it has potential to flood many properties due to the high-density nature of this urban area. Funding was secured from DEFRA for flood alleviation work to this area to improve culverts and upgrade pipes, and construction works were completed during 2005.

In addition to these areas linked to coastal and fluvial flooding, it is important to recognise the role of surface water runoff. This is especially important in Torbay which is urbanised at a high and increasing density. A report to the Development Control Committee on the Review of Flooding in Torbay highlighted the need to

consider the increasing risk of flooding from expanding housing developments and increasing number of hard surfaces created. This source of flooding is already problematic in Torbay which has a history of flash floods. This has, in the past been related to an inability of the sewer system to keep up with development rates in Torbay, but has been exacerbated recently by increasing areas of hard surfaces including roads/ buildings and increased popularity of patios and decking. The public sewers system and existing culverts are currently at capacity so any further development should employ a Sustainable Drainage system (SuDS) which lessens, or at worst equals the runoff from that area of land.

### **3.6.2 Flood Alleviation**

Torbay has a number of means by which to deal with flooding through both hard and soft engineering. Coastal flood defences are located at the following beaches:

- Meadfoot
- Torre Abbey
- Preston Esplanade
- Paignton Esplanade
- Goodrington
- Broadsands

In addition to the flood defences mentioned above there are numerous flood defences located along the Torbay watercourses including a number of flood storage areas at the following locations:

- Stoke Road storage area – Yalberton Watercourse
- Great Parks storage area – Clennon Valley Watercourse
- Hollicombe Woods storage area – Hollicombe Watercourse
- Coombe Park storage area – Ocombe Valley Watercourse
- Sainsbury's storage Lagoon – Aller Brook
- Laywell Reservoir –Higher Brixham watercourse

There are also a number of public open spaces which have potential for flood storage through either natural inundation or man made Sustainable Draining Schemes. These include:

- In Torquay - Illsham Valley, River Fleet, Edginswell, Cockington,
- Hollicombe and Sherwell Park
- In Paignton - Victoria Park, Goodrington Park and Broadsands
- In Brixham - St Mary' Park

Government policy is moving towards 'soft engineering' and avoidance of development in flood risk areas and the allowance of managed retreat. As Torbay's economy is dependent upon the beaches and the directly adjacent tourist infrastructure, managed retreat is therefore unlikely to be an option here. Instead future emphasis is aimed at prevention or minimisation of development in high-risk areas.

Torbay Council has identified a number of remedial works necessary for highways in order to alleviate future flood risk<sup>138</sup>. These are outlined in Table 3.8.

**Table 3.8: Outstanding schemes required to address highway flooding problems**

<b>Location</b>	<b>Problem</b>	<b>Solution</b>
Occombe Valley Road	Culverted Watercourse in danger of collapse	Reconstruct section of watercourse
Occombe Valley/Shorton Valley Road	Flooding to highway caused by field run-off	Re-profile access road
Newton Road/Old Woods Hill	Flooding on highway	Install new highway drain
Wheatridge Lane	External flooding to property	Install new highway drain
Combe Lane	External flooding to property	Install screen and clean culvert
Marldon Road	Flooding on highway	Install new highway drain
Blagdon Road	Flooding on highway	Install new soakaway and drain
Upton Mannor Road, Brixton	Flooding on highway	Install new highway drain
Centry Road	Flooding on highway	Install new highway drain
Newton Road/Old Woods Hill	Flooding on Highway	Install new highway drain
Old Paignton Road/Torbay Road	Flooding on Highway	Planned new screen and works to culvert
Tor Park Road	Flooding on highway	Clean culvert and assess capacity
Long Road/Stoke Road	Flooding on highway	Install new highway drain
Browns Bridge Road/Barton Hill Way	Flooding on highway	Install new highway drain
Old Mill Road/Cockington Lane	Flooding on highway	Modify existing screen arrangement

It was highlighted by stakeholders that a significant number of businesses in Torbay would benefit from flood alleviation works in Station Lane and Victoria Park (Paignton), Bolton Street and Fore Street (Brixham) and Torre Abbey (Torquay). Tweenaways Cross was identified as in need of monitoring to assess future need for flood alleviation works. Tweenaways Cross and Torre Abbey both have significant impacts on the transport system due to their importance in the road network of Torbay.

<sup>138</sup> Torbay Council 'Review of Flooding Within Torbay' 2004



### **3.6.3 Water Quality**

#### **Inland Waters**

Inland water quality is measured by the Environment Agency in only one location in Torbay, on the Aller Brook, near Kerswell Gardens. Water quality at this point has fluctuated in the past, failing to meet water quality targets between 1997- 1999. This is due to its proximity to the Barton Tip landfill site. However, there are no current concerns. Compliance with Water quality in the minor tributaries in the remainder of Torbay is not measured<sup>139</sup>.

#### **Marine Waters**

The quality of Torbay's coastal waters is of paramount importance in relation to maintaining the conservation value of the marine environment as well as maintaining the water-based activities and beaches which makes Torbay such an attractive tourist resort.

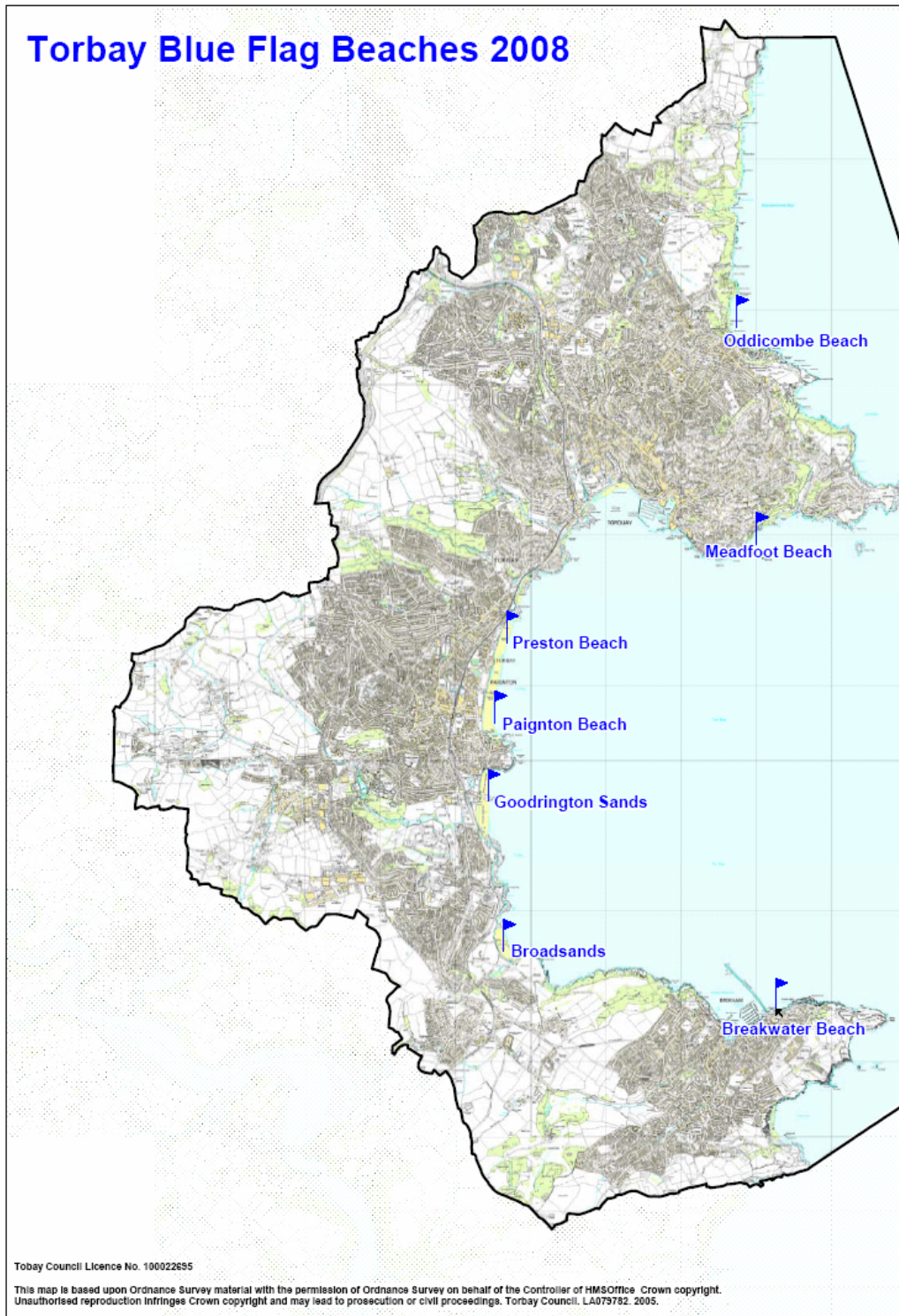
The quality of marine water in Torbay has been consistently good over previous years with only 4 Environment Agency samples tested for the Bathing Waters Directive since 1990 being of poor quality. The most recent of these being in 1997, since then all samples have proved to be of good or excellent quality<sup>140</sup>.

Blue flag is an international award scheme works towards sustainable development at beaches/marines through strict criteria dealing with water quality. In 2008 Torbay achieved seven Blue Flags at Oddicombe, Meadfoot, Preston, Goodrington, Broadsands, Breakwater and for the first time Paignton. These are also shown in Figure 3.10.

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<sup>139</sup> Environment Agency website <http://www.environment-agency.gov.uk/maps> 'What's in your Backyard' (Accessed 2009)

<sup>140</sup>Environment Agency website <http://www.environment-agency.gov.uk/maps/info/bathing/> (Accessed 2009)



**Figure 3.23: Blue Flag and Seaside Award beaches in Torbay**

## **Sewage**

Until 2002 untreated sewage sludge was released through sewage outfalls into the sea. Favourable sea conditions meant that the sewage was taken out to sea rather than deposited on the beaches. The processing of Torbay's sewage however, has been vastly improved with the building of a new sewage treatment works at Churston in the disused Brokenbury Quarry. This is the largest state of the art works in the South West and has cost £44 million and taken two years to build, part of the £95 million 'Clean Sweep' project by South West Water.

Before the project, 10 million gallons of crude sewage flowed into the sea from Hope's Nose to the north of the bay, and Sharkham Point to the South. Initially sewage from Brixham and Paignton were treated, in 2003/04 flows from Torquay were treated with the completion of a new pumping station at Ilsham Valley. The new works includes tertiary and UV treatments before releasing the cleaned effluent into Sharkham Point. This is a significant improvement given the high ecological value of Torbay's wildlife<sup>141</sup>.

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<sup>141</sup> South West Water website [www.southwestwater.co.uk](http://www.southwestwater.co.uk) 'Torbay gets the Clean Sweep treatment (accessed 11.03.05)

## 3.7 Soil

### 3.7.1 Soil Quality in Torbay

In the UK 75% of the land area is used for agricultural activities<sup>142</sup>. In the South West 80% of land is used for agriculture, which is the highest of any region in the UK. In Torbay, however, the largest proportion of land (3,400 hectares) is urban compared to 2,800 hectares of rural land. More than half the land which has not been built over is used for agricultural purpose. There is a limited amount of agricultural land in Torbay and so, wherever possible, the higher grades of agricultural land are preserved and free from development.

The Agricultural Land Classification System classifies land into five grades with grade 3 sub divided in to 3a and 3b. PPS 7 refers to the 'Best and Most Versatile Land' which consists of categories 1, 2, and 3a. This land is the most flexible, productive and efficient in terms of food and non food uses such as pharmaceuticals. The best quality land in Torbay is to be found in Cockington (grades 2 and 3), Collaton St. Mary (grades 2 and 3), Churston (mostly grade 3, some grade 2) and Barton (mostly grade 3, some grade 2)<sup>143</sup> (see Figure 3.25).

### 3.7.2 Brownfield Land

Effective land use through re-use of previously developed land ( brownfield land) is a key objective of PPS3, and there is an annual national target that at least 60% of new housing should be provided on previously developed land. The effective use of such land is a fundamental objective of the Torbay Local Plan (1995-2011) and influences the Council's approach to planning for sustainability in urban areas.

The total amount of brownfield land in sites larger than 0.4 Ha in Torbay is 47.562 Ha (see Table 3.9). The vast majority (73.9%) is owned by the Local Authority. This is much higher than the national and regional averages where over half of such sites are in private ownership<sup>144</sup>. Brownfield land in Torbay that has Allocated Permission or Planning Permission is almost 25% of the total. In addition to this there are a number of smaller brownfield sites, which are not included in the above survey but are monitored by the Strategic Planning Group.

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<sup>142</sup> Defra (2005) National Statistics 'The Environment in your Pocket 2005'

<sup>143</sup> Defra (2005) 'Provisional Agricultural Land Classification, Torbay unitary Authority'

<sup>144</sup> National Land Use Database (NLUD) (Aug, 2003) 'NLUD Previously Developed Land 2002: Regional Summary South West and Torbay Borough (UA) Council', NLUD with Roger Tym and Partners (consultants)

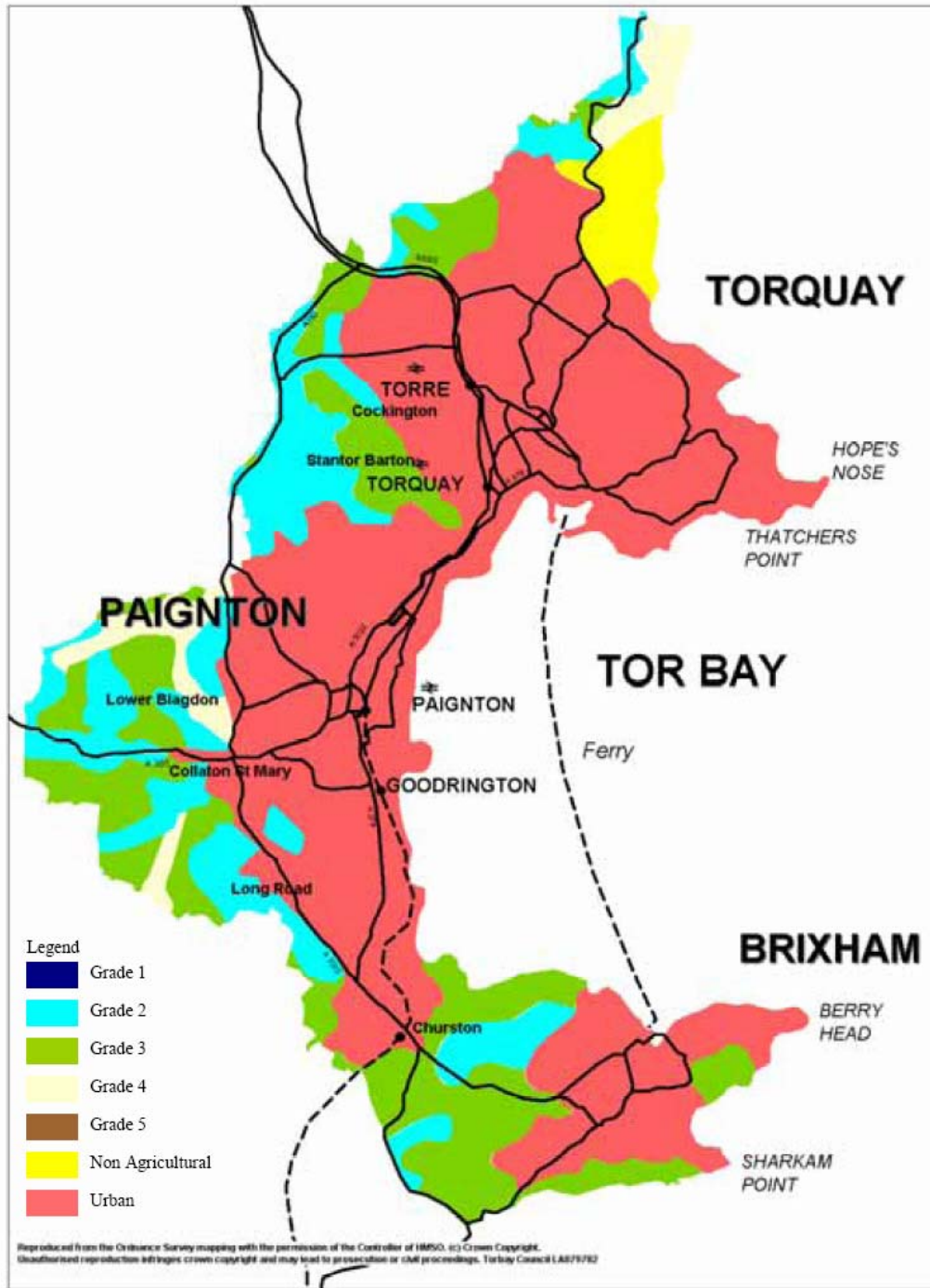


Figure 3.24: Agricultural Land within Torbay<sup>145</sup>

<sup>145</sup> Defra (2005) 'Provisional Agricultural Land Classification, Torbay unitary Authority' Rural Development Service, Reading



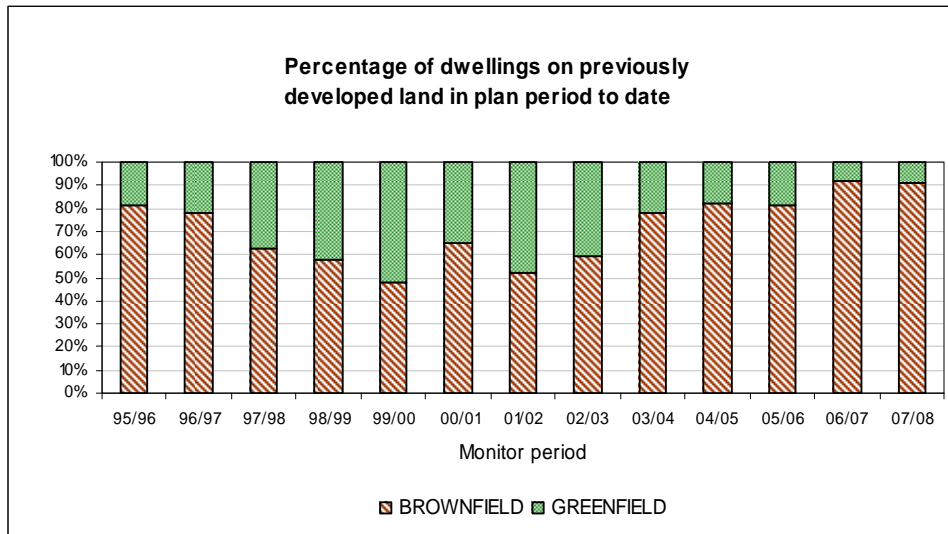
**Table 3.9: Brownfield Land in Torbay on Sites Larger than 0.4 Ha**<sup>146</sup>

<b>Land Type</b>	<b>Area (ha)</b>	<b>%</b>
Derelict Land and Buildings	32.13	67.55
Land or Buildings in Allocated Permission or Planning Permission	11.625	24.44
Previously Developed Land Now Vacant	3.267	6.87
Vacant Buildings	0.54	1.14
<b>Grand Total</b>	<b>47.562</b>	

Figure 3.26 shows the proportion of new housing development on brownfield and greenfield sites over recent years. Annual variations are strongly related to building activity on Torbay's two largest Greenfield sites. It should be noted that there has been a significant increase in the proportion of completions on brownfield land from 59% in 2002/2003 to 92% in 2007/2008. This can be attributed to a decrease in the number of completions on large greenfield sites such as Great Parks and Barton. Annual completions at Barton and Great Parks have been slowing down over the last three years. In addition 2004/2005 saw a complete halt to development at Great Parks, Paignton which has provided a significant proportion of greenfield development.

The current trend for an increasing proportion for development on brownfield sites is set to continue into the next monitor period, as 78% of those units under construction are brownfield and 89% of those sites identified in the monitor as not started are proposed on brownfield land. In the case of Brixham, the absence of a large active greenfield site means that up to 92% of active housing sites are on previously developed land.

<sup>146</sup> National Land Use Database (NLUD) (Aug, 2003) 'NLUD Previously Developed Land 2002: Regional Summary South West and Torbay Borough (UA) Council', NLUD with Roger Tym and Partners (consultants)



**Figure 8.25: Percentage of new dwellings built on brownfield and greenfield land in Torbay<sup>147</sup>**

The trend for increasing brownfield development is confirmed through the Torbay Urban Capacity Study (2005), which demonstrates that there is scope to continue providing 70% of new housing on brownfield sites up to 2016.

### 3.7.3. Contaminated Land

Torbay Council is continuing to progress with the implementation of its contaminated land strategy in accordance with Part IIa of the Environmental Protection Act 1990. This requires the Council to establish how it will identify and deal with contaminated land within its Local Authority area. Other sites will also be identified through development. These will be dealt with through the planning process to ensure that the site is suitable for its intended use.

A GIS database of land quality and its past uses has been established inline with the strategy<sup>148</sup>. Contaminated sites in Torbay mostly consist of land formerly used for tipping, quarrying and pits, and some former railway and industrial land<sup>149</sup>. Potentially contaminated sites can be broadly identified as land previously used for industrial and commercial uses, transport, mineral extraction and landfill. This broad classification means that there is potentially 11.85 hectares of land in Torbay that may require some form of remediation (see Table 3.10) If development is proposed on a potentially contaminated site, further assessment may be necessary either the in the form of a desk top study or site investigation, to determine if land is contaminated and recommend the appropriate remediation.

<sup>147</sup> Torbay Housing Land Monitor 2008

<sup>148</sup> Torbay Council Environment Services Directorate (2001) 'Environmental Protection Act 1990 – Part IIa, Contaminated Land Strategy,' Torbay Council

<sup>149</sup> Torbay Council (2004) Adopted Torbay Local Plan 1995-2011



**Table 3.10: Previous Use of Brownfield Land in Torbay UA<sup>150</sup>**

<b>Previous Use</b>	<b>Area (ha)</b>	<b>%</b>
Vacant Land and Buildings	33.997	71.48
Industrial and Commercial*	5.6	11.77
Transport*	4.85	10.20
Minerals and Landfill*	1.4	2.94%
Residential	1.175	2.47
Community Buildings	0.54	1.14
Total	47.562	100%
<b>Total Land potentially requiring remediation</b>	<b>11.85</b>	<b>29.41%</b>

\* Represent land potentially requiring remediation

<sup>150</sup> National Land Use Database (NLUD) (Aug, 2003) 'NLUD Previously Developed Land 2002: Regional Summary South West and Torbay Borough (UA) Council', NLUD with Roger Tym and Partners (consultants)