

Appendix 1: Baseline Survey

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1 SEA Topic: Air

1.1 Air Quality in Torbay

1.1.2 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 (NO₂), sulphur dioxide (SO₂) and PM10 (PM10 stands for particulate matter below 10 microns in diameter).

1.1.3 The air quality objective that was not met in 2003-2004 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

1.1.4 The air quality figures have been established through monitoring in both temporary and fixed locations. Suspected problem areas were targeted for the sampling of nitrogen dioxide and are therefore likely to represent the worst figures for this pollutant, but more work is needed. In general terms, however, much more monitoring needs to be undertaken that may identify some other areas of poor air quality.

1.2 Sources of Air Pollution in Torbay

1.2.1 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 annum¹. This problem is exacerbated in the summer months when roads are placed under strain by an additional 80,000 visitors and tourists.

1.2.2 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 (discussed below). A monitoring exercise for nitrogen dioxide was carried out in Torbay in 2003 and placed 36 tubes on roads of highest traffic flows and congestion in close proximity to residential properties. This exercise was designed to highlight areas where further study is required².

1.2.3 The result of the studies outlined above indicates that there are a number of areas that required further investigation³. This investigation was undertaken during 2003/04 and indicated that Hele Road was likely to fail its air quality

¹ Torbay Council (Local Transport Plan 2001-2006) 'Annual Progress Report 2004'

² Torbay Council (Local Air Quality Management) 'Updating and Screening Assessment Report 2003'

³ Torbay Council (Local Air Quality Management) 'Detailed Assessment and Progress Report 2004'

⁴ Torbay Council (Local Air Quality Management) 'Detailed Assessment and Progress Additional Report November 2004'

objective (discussed further below). Several other areas were also close to failing the objective (e.g. Dartmouth Road and Brixham Town Hall) and monitoring of these areas continues. 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.

1.2.4 Table 1.1 below shows the results of five monitoring locations on Hele Road which were undertaken for a 12 month period⁴ during 2003/04. Table 1.2 shows that even with the corrections made two areas are predicted to be failing the air quality objective for 2005, though not for 2010.

1.2.5 There is still some concern over other areas within Torbay that were highlighted during these investigations. No other location, however, has as yet been identified as failing the air quality objective, but with the potential of increased traffic levels, and the unpredictability of technology for improvement, monitoring continues.

Location	NO ₂ Concentration (µg ^m ⁻³)	Bias Corrected (µg ^m ⁻³)
1	42.3	38.9
2	30.5	28.1
3	34.7	31.9
4	45.4	41.7
5	45.6	42.0

Table 1.1: Monitored and Corrected NO₂ Diffusion Tube Concentrations (Detailed Assessment and Progress Report - November 2004)

Location	Predicted Concentration (µg ^m ⁻³) 2005	Predicted Concentration (µg ^m ⁻³) 2010
1	37.7	26.6
2	28.2	23.2
3	31.5	25.9
4	41.0	33.7
5	40.9	33.7

Table 1.2: Predicted NO₂ Diffusion Tube Concentrations (Detailed Assessment and Progress Report - November 2004)

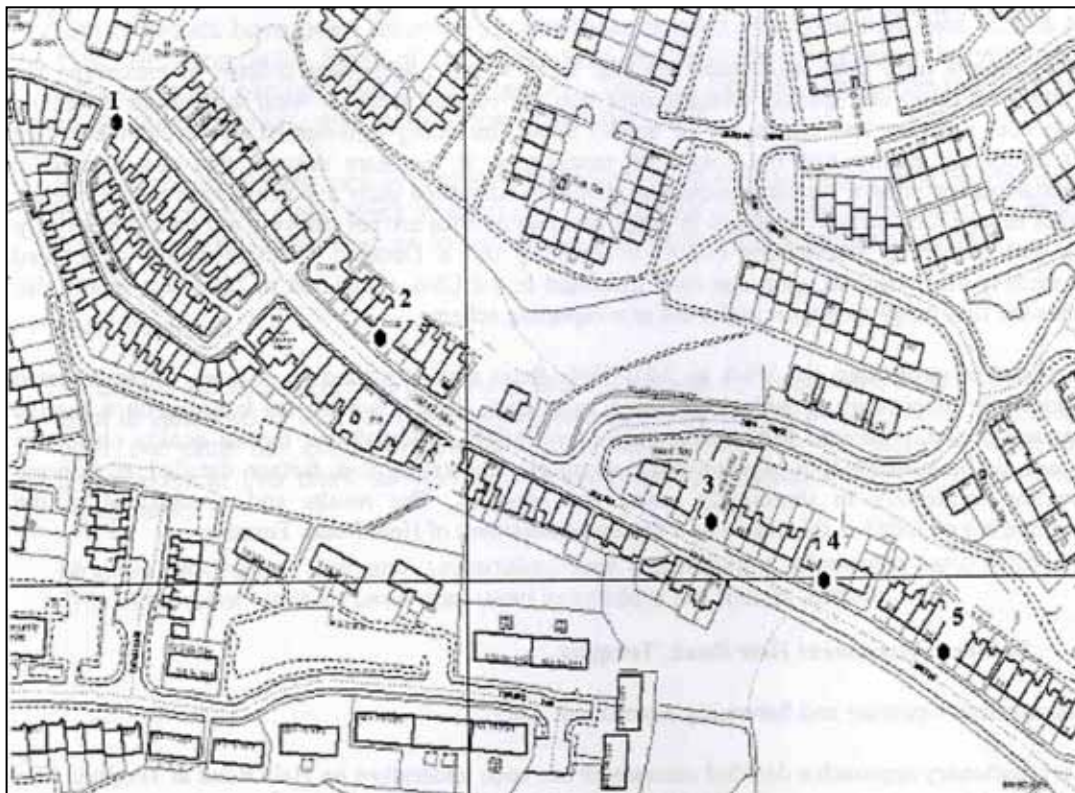


Figure 1.3: Diffusion Tube Monitoring Locations, Hele Road³

1.3 Air Quality Management Area:

1.3.1 Following the submission of a detailed report to DEFRA in November 2004 Hele Village has been designated as an Air Quality Management Area. 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 (see Figure 9.3) 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.

1.3.2 A number of key issues have been identified for investigation, which may help to alleviate this problem and they are outlined below:

- A School Travel Plan – Initial discussion have already taken place with the school to undertake an assessment and proposal to limit the number of vehicles
- Assessment of on-street parking on Hele Road and potential removal of bottleneck
- Transportation study to be undertaken of double roundabout system and the potential of an alternative signalling system
- Overall assessment of traffic flow movement along Hele Road

Torbay Council (2004) Progress Report 2004

- 1.3.3 A monitoring station has been installed to determine nitrogen dioxide levels at different times during the day, which will allow assessment of when the peak periods of nitrogen dioxide occur. This is likely to correspond with traffic flows. It will also give a more detailed picture of levels.

2 SEA Topic: Biodiversity Flora and Fauna

2.1 The Regional context:

2.1.1 The South West of England is renowned for its high quality natural environment. As can be seen from figure 2.1 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 Reserves². The quality of its coastal environment is such that it comprises 60% of England's protected coastline.

2.1.2 Habitats that are particularly important in this region include calcareous grasslands (of which the South West has 62% of the UK total area), lowland heath, flower rich pastures, woodland cover and intertidal areas of mudflats and saltmarsh (important for over-wintering birds)¹.

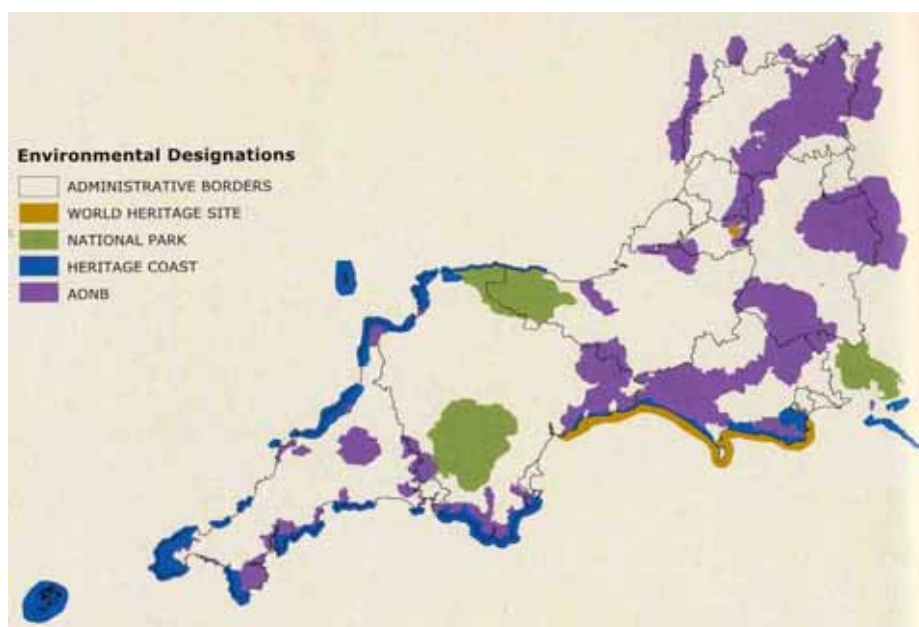


Figure 2.1: Environmental Designations of the South West¹

2.1.3 The South West environment supports 700 species of national nature concern, 25 globally important species, and 11 species which are only found in the South West. Species of particular importance in the region include the Greater Horseshoe Bat, Sand Lizard, Pink Sea Fan, Cirl Bunting and Nightjar.

2.1.4 The Regional Strategy of the South West Environment 2004-2014¹ 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.

² SW Regional Assembly (2004) Our Environment Our Future: The Regional Strategy for the South West Environment 2004- 2014,

2.1.5 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 helped increase some populations but agri-environment schemes will hopefully help across the board.

2.2 The Local Context:

2.2.1 Torbay is part of the South Devon Natural Area² (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 areas 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.

2.2.2 Habitats recognised in Torbay include:

2.2.3 1. Calcareous grasslands: Torbay has the most extensive stands of calcareous grasslands in Devon as a result of an outcrop of Devonian limestone stretching from Sharkham Point to north of Watcombe. This supports a large number of localised and nationally important species, for example White Rock Rose, Honewort and Small Hare's Ear. The most extensive areas are noted in particular at Walls Hill and Berry Head, both of which are protected by SSSIs. Species which characterise calcareous grasslands can tolerate very low nutrient levels so are particularly vulnerable to boost of nutrients by, for example dog fouling which has, in addition to trampling caused degradation in areas such as Walls Hill. These rare species are also vulnerable to damage from scrub invasion often associated with retreat of agricultural activity to more profitable land. This has been further exacerbated by trampling and erosion. There are a number of nature conservation objectives for these habitats defined by English Nature's Natural Area Study of South Devon. These are outlined below:

Nature Conservation objectives for species-rich grasslands:

- 1) Maintain and enhance resources of species-rich grasslands plants and invertebrate communities through appropriate management and development control
- 2) Encourage the extensification of grassland farming, both through targeted agri-environment schemes and more generally, with the aim of increasing the extent of species-rich neutral grassland within the Natural Area. Aim to link and extend existing sites where this does not conflict with other nature conservation objectives.
- 3) Foster greater understanding among farmers and other land managers of the value of species-rich grasslands, ensure that important road verges are managed appropriately
- 4) Increase the opportunities of the public appreciation of this habitat
- 5) Increase the quality and amount of this habitat

English Nature (1998) South Devon Natural Areas

2.2.4 2. Seacliff and cliff tops: Torbay's varied geology, sheltered aspect and mild climate results in a number of coastal plant and animal communities with Mediterranean affinities³. Cliff tops in the South Devon Area are under pressure from farming practices and lack of management which has led to an invasion of scrub and this is an issue in Torbay. Of equal concern are recreational pressures and loss of habitat to development. Maintenance of these cliff tops is essential as they are considered to be one of the most natural of England's habitats. The sea cliffs at Berry Head are home to one of the highest concentration of breeding sea birds in the South Devon Natural Area. This includes the Fulmars, Kittiwakes, Shags and the biggest colony of Guillemot on the Channel coast.

Nature Conservation objectives for sea cliff and top habitats:

- 1) Maintain through appropriate management, the existing extent of maritime grassland, heathland and other communities of interest
- 2) Encourage the restoration of degraded or neglected sites to their former glory
- 3) Seek to recreate lost maritime grassland and heathland habitat adjacent to existing areas
- 4) Encourage an increase in the numbers of Cirl Bunting through appropriate management
- 5) Ensure that coastal planning decisions allow for the maintenance of natural coastal processes and promote the use of 'soft' engineering techniques. This objective will be facilitated by the production of Shoreline Management Plan
- 6) Promote application, interest and sustainable public enjoyment of the habitats, geology and landform features of the coastal areas

English Nature (1998) South Devon Natural Areas

³ English Nature (1998) 'South Devon Natural Area'

- 2.2.5 3. Heathland: There remains only one patch of heathland in Torbay at Berry Head which has a significant role as a rare habitat (limestone heath) of very high nature conservation value. The Wildlife Survey of 1991 states that this area is contracting in size due to gorse invasion. Management plans scheduled in the past have concentrated on scrub clearance and the recreation of open heathland. The area is currently classified as in Unfavourable Condition.
- 2.2.6 4. Farmland and hedgerows: These areas play an important role in provision of wildlife in Torbay with agricultural land accounting for a third of Torbays area². The intensification of agriculture is the key issue affecting these habitats. These habitats are linked via ancient hedgerows and green lanes which offer potential for movement for flora and fauna, refuge and opportunities for recolonisation. A number of these of particular importance have been designated in the Torbay Local Plan (see figure 2.2).
- 2.2.7 National trends have indicated a loss of hedgebanks as a result of intensification of farming. This loss has not been so great in the South Devon Natural Area however there remain concerns over management of existing field boundaries as it is still felt to be problematic for nature conservation. This is largely linked to a lack of management of traditional field hedgerows which substantially reduces their ecological value. Traditional hedgerows support a number of species including Cirl Bunting and Dormouse (both protected species). Of concern is a decline in Barn Owls due to a loss of suitable hunting habitat (intensification of agriculture) and loss of breeding sites (old barns and farm buildings)

Nature Conservation objectives for Farmland and hedgebanks:

- 1) Increase the availability of weedy winter stubbles for Cirl Bunting and other farmland birds
- 2) Encourage the management of arable margins to benefit rare plants and declining farmland birds
- 3) Encourage appropriate management of existing semi-natural grasslands and extensification of improved grasslands to benefit farmland biodiversity
- 4) Maintain overall numbers of hedgerows and hedgerow trees at least at current levels and halt the further loss of species rich hedges through neglect or removal
- 5) Achieve favourable management of all species- rich hedges through publicity and the provision of advice
- 6) Ensure the hedgebanks of the Natural Area remain a valuable habitat of the dormouse and brown hairstreak
- 7) Foster the public understanding and enjoyment of farmland wildlife
- 8) Increase the quality and amount of information on farmland wildlife

English Nature (1998) South Devon Natural Areas

- 2.2.8 The nature conservation value of these areas is being reduced by the increased use of autumn sown cereals causing a loss of cereal stubble. Neglect of hedgerows is also an issue. This is particularly significant for the Cirl Bunting population which faced a significant national decline in 1970

surveys and further declines in 1989 where all but four pairs were found in South Devon⁴. Torbay now has 10-12% of the UK population of Cirl Bunting with all the remaining population in the South Devon Area. Land management to encourage these birds includes providing low intensity mixed farmland with winter stubble and insect rich pastures with thick bushy hedges and scrub. Correct Management through Countryside Stewardship Schemes in the county indicated an increase of 85% in the Cirl Bunting population on stewardship land compared to 2% on non-stewardship land⁵.

2.2.9 5. Woodland: The Wildlife Trust's 1991 survey⁶ indicates that approximately 18% of undeveloped land in Torbay is woodland, of which 40 Ha out of the 532 Ha is ancient and therefore of the highest ecological value. These are found in Clennon Valley, Occombe Woods, Lupton Park and the Grove. Torbay's Ash/Maple woodlands growing on limestone soils are exceptional in Devon and their degraded condition is of considerable concern⁷. Threats to these woodlands relate mainly to invasion by alien species, encroachment from neighbouring development and intensive recreational use. Active management is required to resolve these problems.

2.2.10 Other woodlands in Torbay that are not classified as ancient semi-natural are often under equal pressure and their dependent species may be of equal value to the older established woodlands. Fragmentation of and encroachment into these woodlands is likely to damage Torbay's biodiversity.

⁴ 'Species Action Plan: Cirl Bunting'[WWW] www.ukbap.org.uk/ukplans (accessed 17/02/05)

⁵ 'South West Biodiversity Action Plan – Cirl Bunting Conservation Project' [WWW] www.swbiodiversity.org.uk

⁶ Torbay Wildlife Survey, Devon Wildlife Trust (1991)

⁷ Dominic Acland, Torbay Coast and Countryside Trust, Personal communication. March 2005

Nature Conservation objectives for ancient woodland:

- 1) Maintain and enhance areas of ancient woodland in the Natural Area through ensuring appropriate management
- 2) Restore native tree cover to areas of ancient woodland planted with conifers
- 3) Encourage the integration of small woods into the local economy through sustainable timber production
- 4) Encourage the expansion and linking together of woodlands through the planting of new areas, where this does not damage existing habitat of nature conservation importance
- 5) Retain veteran trees and ensure the long term continuity of this habitat
- 6) Maintain important lichen and bryophyte communities through encouraging appropriate management
- 7) Maintain and where possible, improve air quality across the Natural Area for the benefit of lichens and lower plants. This will largely be achieved as the result of National Strategies
- 8) Encourage the public appreciation and enjoyment of ancient woodlands
- 9) Increase the quality and extent of information on ancient woodlands in the Natural Area.

English Nature (1998) South Devon Natural Areas

2.2.11 6. Urban Habitats: Although much of Torbay is urbanised this does not mean these areas have little biodiversity value. Allotments, pockets of woodland, domestic gardens, ponds and dwellings all have ecological value each providing a variety of different habitats. Garden ponds, for instance, are known to provide one of the largest remaining reservoirs for amphibians in the UK⁶. A key issue in Torbay regarding urban habitats is the value of insect/invertebrate rich gardens which help many mammal and bird species. The intensive use of pesticides has reduced the value of gardens and the number of species feeding on invertebrates. Other problems include intensive recreational pressures, fragmentation, over-intensive management of public open spaces and highway verges, and the development of open space. New houses could consider their value to local wildlife by providing nesting opportunities for bats, Swift, Starling and the House Sparrow⁸. This is easy to do when houses are being built but expensive and difficult later. English Nature objectives for urban areas are set out below :

⁶ Kevin Rylands, RSPB South West Regional Office, Personal Communication, March 2005

Nature Conservation objectives for urban areas:

- 1) Ensure no further loss of semi-natural habitats in urban areas and that new developments allow for areas of green space of value to wildlife
- 2) Enhance the quality of existing urban wildlife habitats
- 3) Encourage the creation of new wildlife habitats, including wildlife corridors, within urban areas
- 4) Ensuring that buildings either remain of value or are designed to be of value to wildlife, particularly bats
- 5) Ensure that native plants of compatible genetic stock are used where appropriate in landscaping and restoration projects
- 6) To improve the opportunities for the general public and communities to experience, enjoy and appreciate the natural worlds within the urban areas, after all, most people spend most of their time in towns and cities
- 7) Increase the quality and extent of information on urban wildlife and natural features

English Nature (1998) South Devon Natural Areas

2.3 The Marine environment

- 2.3.1 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, underboulder sites and rocky ledges and boulders. The Torbay Marine Biodiversity Action Plan⁹ identifies 3 habitats and 2 species Action Plans as outlined below. These are indicated in figure 2.2.
- 2.3.2 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 (eg rock pooling). Potential threats include development pressures, for example coastal defences existing into littoral zone
- 2.3.3 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 fishing industry, pipe and cable laying and sea defence construction, organic pollution (e.g. sewage), coastal protection works, discharge of contaminants and nutrient enrichment.
- 2.3.4 Seagrass beds: These habitats develop in inter-tidal and shallow subtidal areas of sands and muds 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,

⁹ Torbay Marine Biodiversity Action Plan, Torbay Coast and Countryside Trust (2004)

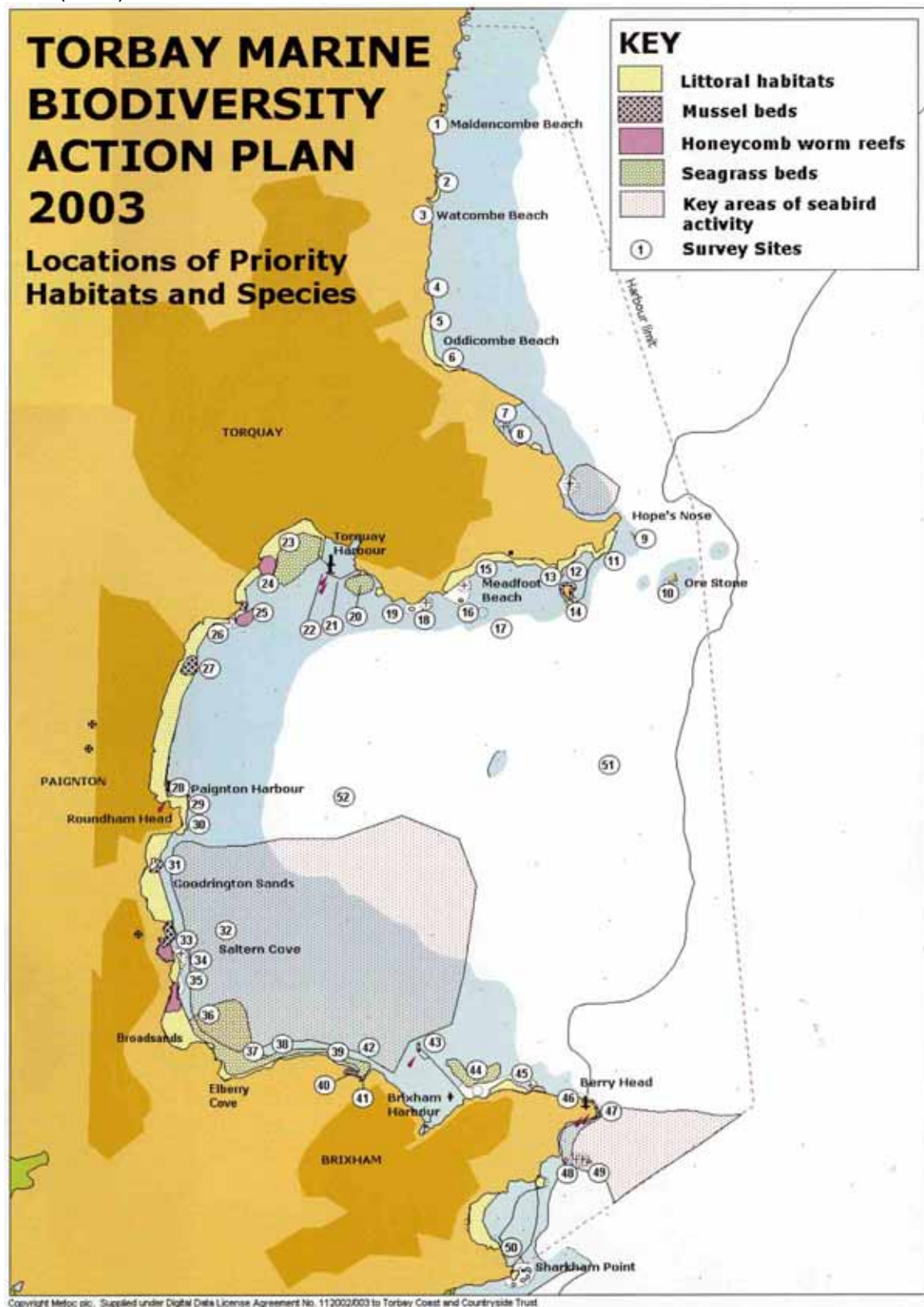
physical disturbance (trampling and dredging), increased turbidity, nutrient enrichment and marine pollutants.

- 2.3.5 A number of key species have also been recognised as important resulting in the development of Species Action Plans¹⁰. These include:
- 2.3.6 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 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 IUCN (International Union for the Conservation of Nature) 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.
- 2.3.7 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) (see figure 2.5). The main threats to these species include physical disturbance, anglers, gill nets, marine pollution and increased turbidity.
- 2.3.8 The Torbay Local Biodiversity Action Group¹¹ has developed a list of Action Plans to conserve and enhance biodiversity through the use of local partnerships. Issues identified for specific action and therefore of importance locally include lowland calcareous grassland, urban environments, farmland, broad-leaved woodland, marine habitats and species Gull Bunting populations, Song Thrush populations, Terrestrial Invertebrates and Earth Heritage. These were identified on the basis of their relative importance in national, regional and local terms and consulted on with a wide range of stakeholders.

¹⁰ Torbay Marine Biodiversity Action Plan, Torbay Coast and Countryside Trust (2004)

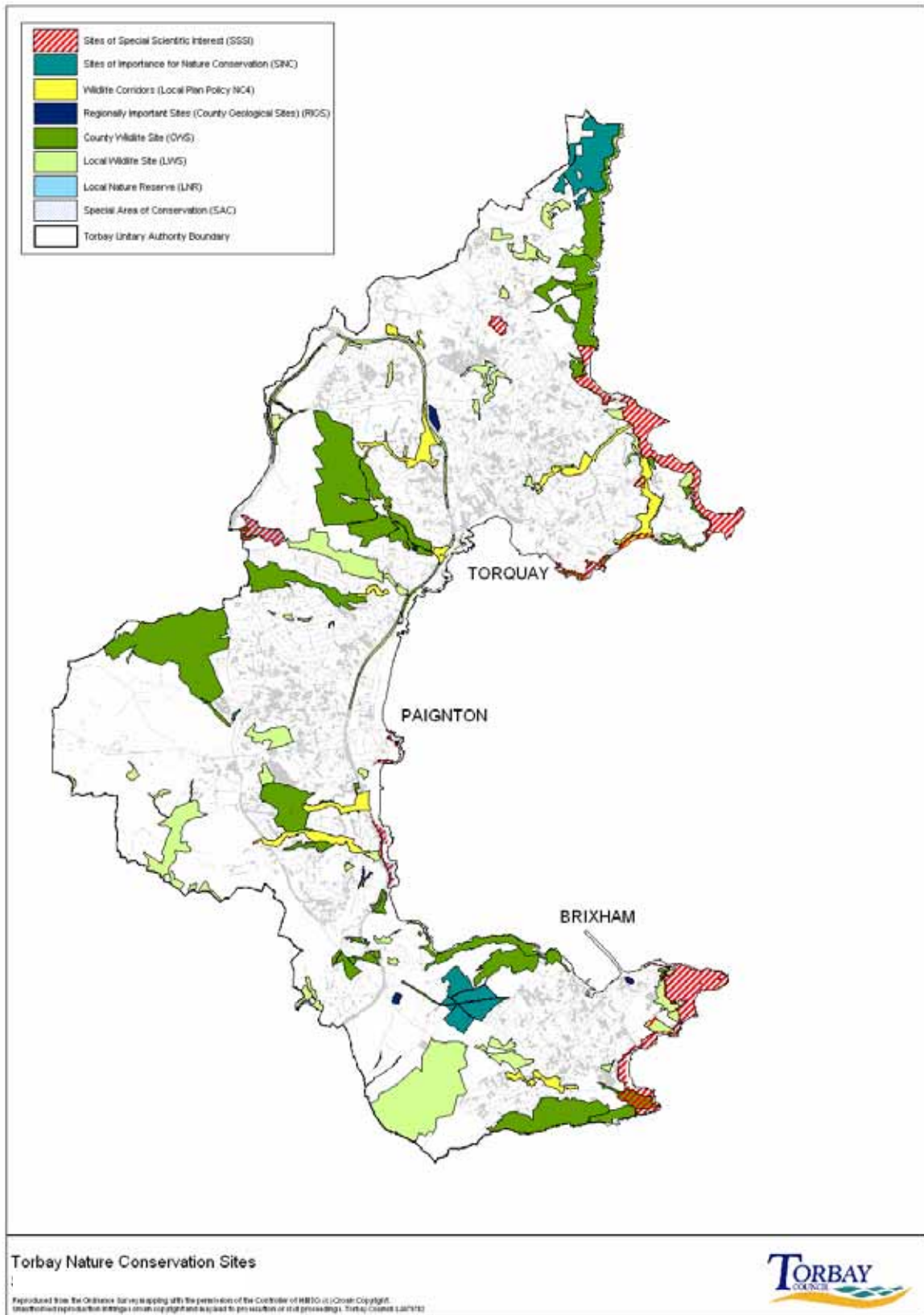
¹¹ Dominic Acland, Torbay Coast and Countryside Trust, Personal Communication. March 2005

Figure 2.2: Key marine habitats of Torbay as identified in the Torbay Marine Biodiversity Action Plan. Location numbers relate to specific habitats and their associated species and are detailed further in the Torbay Marine Biodiversity Action Plan (2004)



2.4 Designated Areas in Torbay

Figure 2.3: Map of Torbay Designated Areas



- 2.4.1 Due to the nature conservation importance of Torbay there are a number of designations allocated at different levels from local to national and international.
- 2.4.2 Locally allocated sites include the forty five Local Wildlife Sites (LWS) and twenty eight County Wildlife Sites (CWS) (see figure 2.3 above). 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 review¹² 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.
- 2.4.3 Of more concern was the recognition that two County and two Local Wildlife Sites 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 were 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 a site CWS has been amended from four breeding pairs up to six. This has resulted in the deletion of a further four County Wildlife Sites in Torbay as a result of an RSPB survey undertaken in 2002/2003.
- 2.4.5 Torbay also has four Local Nature Reserves (LNRs) at Ocombe Valley Woods, Ocombe 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. The Torbay Community Plan Action Plan¹³ aims to achieve the national target of one hectare of LNR per 1000 of the population by 2006.
- 2.4.6 Land to the east and west of Brixham is part of the South Devon Area of Outstanding Natural Beauty 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'¹⁴. 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.
- 2.4.7 Torbay has a number of Important Geological sites¹⁵. There are six existing official RIGS (Regionally Important Geological Sites) 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

¹² Torbay Wildlife Sites Review, Devon Wildlife Trust (November 1998)

¹³ Torbay community Plan Action Plan 2004 – 2007, Torbay Council (2004)

¹⁴ South Devon AONB Partnership (2004) 'South Devon Area of Outstanding Natural Beauty: Management Plan 2004-2009'

¹⁵ Kevin Page, Devon Regionally Important Geological Sites (RIGS) Group, Geologically Important Sites, Personal Communication, April 2005

the RIGS sites are Breakwater Quarry in Brixham and Brokenbury Quarry in Churston Ferrers.

2.4.8 Torbay has 12 SSSIs (Sites of Special Scientific Interest) (see figure 2.3 above) the condition of which has been monitored by English Nature between 1999- 2004. They are indicated in figure 2.4¹⁶. It is apparent from these figures that in comparison with Devon and South West, Torbay's SSSIs are in relatively good condition with a much higher proportion of area in favourable condition and no areas in unfavourable/ declining condition. Those experiencing unfavourable conditions are generally noted to be in need of scrub clearance and increased grazing requirements. There is evidence of an improvement of unfavourable sites in Torbay as half of this area is noted to be in recovery.

Area	%Area meeting Public Service Agreement target ¹⁷	%Area favourable	%Area unfavourable recovering	%Area unfavourable no change	%Area unfavourable declining	%Area destroyed / part destroyed
South West	73.42%	53.14%	20.28%	16.59%	9.79%	0.20%
Devon	67.21%	44.73%	22.48%	21.35%	11.32%	0.12%
Torbay	92.66%	85.83%	6.83%	6.46%	0%	0.88%

Figure 2.4: Condition of SSSIs¹⁵

2.4.9 The cSAC (Candidate Special Area of Conservation)/ SAC (Special Area of Conservation) (see figure 2.3 above) 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 Head¹⁷.

2.4.10 Berry Head itself is a particularly sensitive area with a number of designations including Site of Special Scientific Interest, Area of Special Protection (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

¹⁶ Condition of SSSI units (Nov 2004) <http://www.english-nature.org.uk/special/sssireport.cfm?category=C,CF>. (Accessed 12/01/05)

¹⁷ PSA (Public Service Agreement) target is to achieve 95% of SSSIs in favourable condition by 2010.

Area of Outstanding Natural Beauty. The key biodiversity assets of Berry Head are outlined below¹⁸ :

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

The 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.

2.4.11 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

¹⁸ Coast and Countryside Trust [WWW] http://www.countryside-trust.org.uk/documents/Berry_Head_details_2005.doc (accessed 18/02/05)

2.5 Protected Bird Species in Torbay

2.5.1 Torbay has many endangered bird species. These include those listed in figure 2.5 below.

Figure 2.5 Protected Bird Species/ Habitats in Torbay

Species Name	Where found in Torbay	Designation	Management Requirements
Balearic Shearwater	Feed far offshore	Critically endangered (Birdlife International)	
Bullfinch	Throughout Torbay	BOCC ¹⁹ Red List	
House Sparrow	Urban Areas and farmland	BOCC Red List	
Linnet	Coastal and farmland	BOCC Red List	Stubble fields in winter, conservation headlands for breeding
Skylark	Farmland	BOCC Red List	Stubble fields in winter, conservation headlands for breeding
Song Thrush	Throughout Torbay	BOCC Red List	Gardens with no pesticides or predator control (cats)
Spotted Flycatcher	No longer breeds – passage many areas	BOCC Red List	
Starling	Throughout Torbay	BOCC Red List	
Yellow Hammer	Farmland on outskirts of Torbay	BOCC Red List	Stubble fields in winter, conservation headlands for breeding
Cirl Bunting	Farmland	BOCC Red List	Low intensity mixed farmland, Stubble fields in winter

2.5.1 Those 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.

¹⁹ BOCC UK Birds of Conservation Concern

Figure 2.6 Annex 1 EC Birds Directive²⁰ Species found in Torbay include:

Species	Wintering	Breeding	Migration
Red-throated Diver	<input type="checkbox"/>		<input type="checkbox"/>
Black-throated Diver	<input type="checkbox"/>		<input type="checkbox"/>
Great Northern Diver	<input type="checkbox"/>		<input type="checkbox"/>
Slavonian Grebe	<input type="checkbox"/>		<input type="checkbox"/>
Balearic Shearwater			<input type="checkbox"/>
Storm Petrel			<input type="checkbox"/>
Little egret	<input type="checkbox"/>		<input type="checkbox"/>
Merlin	<input type="checkbox"/>		<input type="checkbox"/>
Peregrine	<input type="checkbox"/>	<input type="checkbox"/>	
Bar-tailed Godwit			<input type="checkbox"/>
Mediterranean Gull	<input type="checkbox"/>		<input type="checkbox"/>
Sandwich tern			<input type="checkbox"/>
Common tern			<input type="checkbox"/>
Arctic Tern			<input type="checkbox"/>
Little Tern			<input type="checkbox"/>
Black Tern			<input type="checkbox"/>
Kingfisher	<input type="checkbox"/>		
Woodlark	<input type="checkbox"/>		
Dartford Warbler	<input type="checkbox"/>		

2.6 Potential threats to Sea Bird Species in Torbay

2.6.1 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. Oil pollution is always a threat to sea birds.

2.7 Summary

2.7.1 This section demonstrates the quantity and diversity of protected species found in Torbay and the extent of protected habitats. These protected areas are one of Torbay's great natural assets but they also provide a constraint in terms of land available for future development. Many protected species are at risk from human activity, especially changes to farming practices and the influence of the tourist industry.

²⁰ EC Birds Directive (79/409/EEC) 1979

3 SEA Topic: Climatic Factors

3.1 The Regional Context

3.1.1 'The last century was probably the warmest of the entire millennium' according to the South West Climate Change Impact Study (2003). Recent warming of our climate noted over the last 50 years has been attributed to increases in heat-trapping gases such as carbon dioxide and methane. There has been a global recognition of the need to reduce emissions for greenhouse gases in the future through the signing of the Kyoto Protocol.

3.1.2 If climate change continues in the South West at the current rate, by 2050 it has been estimated that the region will experience²¹:

- Warming of 1-2.5 degree c
- 5-15% wetter winters and 15-30% drier summers
- Significant reduction in snowfall.
- Increase in radiation levels in summer and autumn as cloud cover decreases
- Decrease in summer soil moisture
- Increase frequency of winter depressions
- North Atlantic Oscillation becoming more positive bringing wet, windy and mild winters.

3.2 The Local Context

3.2.1 There are a number of opportunities and challenges that present themselves in association with these changes. Those most relevant to the Torbay area are outlined below:

- It's coastal location makes it vulnerable to increases in stormy weather and coastal erosion associated with the climate change. Of the 36km of shoreline within Torbay, 9km are defended against erosion, with the remaining 27km frontage consisting of natural undefended cliff. Erosion levels outside of the defended area averages 0.2m per year (1998 Shoreline Management Plan).
- The rise in sea level may cause a squeezing of biodiversity between sea and farmland or urban development as well as a possible migration of certain species such as the Honeycombe Worm northwards. Other species will thrive on warmer temperatures and longer breeding seasons.
- A combination of increased urbanisation and storminess creates peaks of rain water runoff which have the potential to cause localised flooding threatening buildings, transport and communications. Torbay already has a history of fast flash floods in summer months²² linked to the high number of hard surfaces, steep topography and reduced lag time. It is likely that these flash floods will become more frequent and will extend to winter months due to increased frequency of winter depressions. There is a marked need to avoid development in areas of risk and encourage use of sustainable urban drainage systems (SUDS) schemes to provide flood

²¹ South West Climate Change Impacts Partnership (2003) 'South West Region Climate Change Impacts Scoping Study - Warming to the idea: Meeting the challenge of climate change in the South West',

²² Torbay Council (2004) 'Review of flooding within Torbay'

storage and reduced lag time. Further detail on areas susceptible to flooding is outlined in part 10 of this appendix.

- Reduced water availability as summers become hotter and drier. This will require increased efforts for water conservation such as the installation of low water use fittings, rainwater harvesting and grey water recycling.
- Declining fish stock and composition as a result of increasing sea temperatures. This is particularly significant for the economy of the South West which comprises 42% of England's fishing operations. On a local level this has greatest implications for Brixham which is centred around the fishing industry.
- There are particular concerns over the accessibility of the rail link into Torbay which passes around the coast via Teignmouth and Dawlish from Exeter. The track is vulnerable to storm damage due to the proximity to the coastline which has results in disruption to the line several times a year. This is likely to come under increasing pressure as global warming continues to increase storminess. This link carries high numbers of passengers providing vital transport for school children, those that work in Torbay and tourists visiting the area, helping to reduce dependency on the private car.
- A need to design new buildings to maximise solar gain during winter months whilst providing cooling for predicted increased summer temperatures. This will apply to both business premises and residential buildings. Increased temperatures will also bring increased requirements for outdoor shading for buildings and public open spaces.
- Hotter and drier summers also bring threats of subsidence and disruption of services pipes. It also has the potential to cause disruption of vital transport infrastructure such as roads and railway lines, which are designed for certain temperatures, which if exceeded, may cause buckling of railway lines and melting of tarmac.
- Changing balance of energy demand will cause less demand for energy in the winter months but increased demand for power in summer months to supply cooling systems.
- Lifestyles may change with warm weather encouraging increasing numbers of people to walk and cycle, and increased demand for access to public open spaces, rivers and coasts²³.

3.2.1 Global warming could have a small number of positive effects including an extension of the tourist season potentially encouraging more people to favour domestic holidays over travel abroad. This could act to strengthen the tourism role of Torbay and its associated industries. There are also opportunities in agriculture to extend the growing season with warmer climates providing opportunities for new crop varieties such as grapes, maize and sunflowers.

3.3 Reducing Carbon Emissions

3.3.1 There are three main ways of mitigating against carbon emissions; firstly by reducing energy usage, secondly by the sequestration of carbon, and thirdly by changing to carbon free energy generation. There are two main ways in which carbon emissions can and are being reduced in Torbay namely: by

²³ Regional Assembly [WWW] <http://www.oursouthwest.com/climate/ccipleaflet.pdf> (accessed 16/03/05)

reducing emissions from cars; and by the generation of renewable energy. These options are discussed below.

3.3 Reduced emissions from cars

- 3.3.1 Cars are a major contributing factor in carbon emissions. The reduction of this source in Torbay can be achieved through the use of alternative, greener forms of fuel (Liquid Petroleum Gas and electric powered) or by reducing car use altogether. There are a small number of LPG suppliers in Torbay, however 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.
- 3.3.2 Torbay faces some conflicts in its need to provide sustainable forms of transport. Environmentally the priority is to reduce car use and the associated carbon emissions. In harmony with this, social objectives include the need to provide for deprived areas and the elderly who depend on accessible public transport to avoid social exclusion.
- 3.3.3 However economic sustainability is also an important factor as the accessibility of Torbay plays an important role in its economic future. It is recognised that poor accessibility to Torbay is having a detrimental effect on the area's economy resulting in poor opportunities for graduates and out-migration of skilled residents. Torbay remains the largest urban area in Britain served only by a single carriageway road²⁴. In recognition of this, consideration is being given to proposals for a bypass scheme to address congestion at Kingskerswell.
- 3.3.4 Relief of congestion on the A380 was identified as a regional priority by the South West Regional Assembly May 2004 consultation draft 'Developing the Regional Transport Strategy Investment Priorities for the South West'. It is anticipated that this route will help to reduce peripherality of Torbay, and promote its economic regeneration as well as improving the quality of life for residents of Kingskerswell. The link will provide new road infrastructure between Penn-Inn roundabout and Kerswell Gardens and will incorporate a cycle/ pedestrian and bus lane separated from the main carriageway. The Link will be subject to a separate environmental impact assessment (EIA)

Promotion of sustainable transport

- 3.3.5 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. Approximately 39% of students in Torbay are covered by school travel plans, with 2003-2004 introducing 5 new travel plans. An increasing number of schools 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.

²⁴ Torbay Council (2003) Torbay Local Transport Plan: Annual Progress Report 2003

Bus Services:

- 3.3.6 Bus patronage has risen from 6,412,000 bus passenger journeys in 2002/03 to 6,498,000 in 2004/05. This 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 2001/2 to 36,310 in 2003/4.
 - Promotion of Devonwide Cards to improve the accessibility for the elderly has resulted in an increased number of applications from 13,130 in 2001/2002 to 17,376 in 2003/4.
 - Improved bus infrastructure through an increase of 20 new bus stops, and improvements to 35 stops.
 - The target from the New Local Transport Plan 2006 - 2011 is to achieve 7,884,000 passenger journeys by 2010/11²⁵
- 3.3.7 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
- 3.3.8 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 Strategy²⁶, designed to increase co-operation between the council and bus operators to achieve higher bus patronage.

Rail

- 3.3.9 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 three years from 91.1% in 2001/2002 to 98%²⁷ in 2003/4 with Wessex Trains meeting their service reliability targets.
- 3.3.10 Each of the stations have historic value (Grade II) but are in need of serious 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

²⁵ Torbay Council (July 2005) Provisional Local Transport Plan 2006 – 2011

²⁶ Torbay Council, Revised Torbay Bus Strategy 2005

²⁷ Torbay Council (2004) Torbay Local Transport Plan: Annual Progress Report 2004

Paignton within the financial year 2005-6. It is hoped that this will facilitate easier linked trips.

Cycling

3.3.11 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 Audit²⁸ 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 were 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).

3.3.12 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 psychological 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. They are documented here as general points that will need to be addressed through the plan making process in order to increase cyclist numbers. The environment in Torbay is relatively safe for cyclists with the number of fatal and serious accidents in Torbay involving cyclists very low with only one recorded accident in 1998 and one in 2001.

Walking

3.3.13 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 traffic 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.

3.3.14 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.

Private cars

3.3.15 The private car still remains a popular mode of transport in Torbay. In 2003/2004 63% of Trips to work in Torbay were by car²⁹. The 'Hands Up

²⁸ English Regions Cycling Development Team Local Authority Audit (2003)

²⁹ Torbay Council (July 2005) Provisional Local Transport Plan 2006 – 2011

Survey' 2005 shows that 43% of school children are driven to school³⁰. This has created pockets of congestion which are worsened during the tourist season. Areas of particular concern include Windy Corner, Tweenaway Cross, Riviera Way (Kerswell Gardens, Scott's Bridge, Brown's Bridge, Lawe's Bridge) and the seafront (during peak periods). Other localised pockets are evident around schools and large employers at peak times. Rising traffic levels are placing increased pressure on existing networks, requiring further promotion of alternative modes of transport through traffic restraint measures and travel plans.

3.4 Renewable Energy

3.4.1 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 1991³¹. In addition to this there are a number of smaller schemes for more unusual sources of renewable energy such as a hydro sites, renewable energy plants for biomass, waste - to energy, ground sourced heat pumps, solar electric and solar water heating systems.

3.4.2 However at present renewable sources only supply 109.4MW of the South West current generating power. This will need to be substantially increased in order to meet the RPG10 target of 563-673MW (11-15%) of electricity generation to be derived from renewable energy. This will have to be balanced against the need to retain the landscape, biodiversity, cultural and historic assets of the South West. There are no figures available at the moment on total energy consumption in the South West although the DTI are addressing this. Total generating capacity for the south West is estimated to be 3,950 MW with a further 1,349 MW to become available in 2010 after the construction of a new gas fired power station near Plymouth³².

3.4.3 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 England¹¹:

- 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.

³⁰ Transport Team (2005) 'Hands Up Survey 2005' Torbay Council

³¹ Regen SW (2003) Regional Renewable Energy Strategy of the South West of England 2003-2010,

³² Terence O'Rourke and ETSU (2001), from the south West Observatory Environment Website accessed 03.08.05 (http://www.swenvo.org.uk/environment/Sec2_energy.asp)

- 3.4.4 A lack of policy backing can result in application for renewable 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 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 (now in operation) and at Goveton, South Hams. There are no sites designated for wind based energy production along the South Devon coastline.
- 3.4.5 It should be recognised that in Torbay itself 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.
- 3.4.6 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.

4 SEA Topic: Economic Factors

4.1 Introduction

- 4.1.1 In spite of its traditional prosperous image Torbay has some serious economic problems³³. 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, especially male unemployment³⁴, and parts of Torbay show signs of severe deprivation³⁵.
- 4.1.2 In 2003 the Torbay Development Agency 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 training³⁶ as well as a capital programme to regenerate the built environment and management of all maritime activities.
- 4.1.3 More positively, the Torbay Employment Land Monitor suggests a high level of economic activity with 4.4 hectares of employment land under construction. In addition there were planning permissions for up to 2,177 sq. metres of employment floorspace in existing employment areas. This is a significant increase after years of relatively low construction on employment land.

4.2 Economic output over time relative to other regions.

- 4.2.1 Torbay has a low level of gross income per head when compared both nationally and regionally. Almost a third of the Torbay workforce earned less than £250 per week in 2002, whereas only 20% of the South West and 17.7% of national earnings were under £250 per week. Average gross weekly earnings in Torbay in 2002 were £340.20; this is £81.50 less than the average for the South West and £127.90 less than the national average³⁷. In 2004 Torbay Gross average annual pay per employee was £15,359, the fifth lowest in the South West, only 68.1% of the England and Wales gross average income and 78.8% of the South West average (refer to figure 4.1). If the median value is taken, instead of the average, then Gross pay per employee is £13,238, the third lowest in the South West³⁸.

³³ Torbay Council Torbay Employment Land Monitor 2004

³⁴ Ibid.

³⁵ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

³⁶ Torbay Council Torbay Employment Land Monitor 2004

³⁷ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

³⁸ Office for National Statistics, Annual Survey of Hours and Earnings 2004

Figure 4.1: Gross Annual Pay (£) for all Employee Jobs, UK 2004

Authority/Area	Mean Gross Annual Earnings
West Devon	£13,375
Torrige	£15,353
Torbay UA	£15,359
South Hams	£16,271
Mid Devon	£16,373
Teignbridge	£16,641
East Devon	£16,713
Devon	£17,372
North Devon	£18,605
Exeter	£18,768
Plymouth UA	£19,812
South West	£19,492
England and Wales	£22,542

Source: Annual Survey of Hours and Earning 2004, ONS³⁹

Note: The table shows adult rates of income for those in the same job for more than a year. This means that those people providing temporary and short term work were not included, and therefore the realistic figure may be much lower.

4.2.2 In the three year period between 1995 and 1998 Gross Domestic Product (GDP) rose in line with the national average increase in percentage terms (18.3 % compared to UK 18.1%) but overall GDP was well below national and regional figures in terms of money per head⁴⁰. Recent information from ONS measured in GVA (GDP + tax - subsidies) is outlined in figure 4.2. This table shows how Torbay was still below well below national and regional economic output by 2001.

4.2.3 Overall output in 2003 grew by 7.6%, compared with a national growth of 5.4%. This above average growth has helped reduce Torbay's income gap with the national average to 68.1%. These trends may indicate an upturn in Torbay's economy. Partly the reason for this is a growth in manufacturing in 2003⁴¹.

³⁹ Office for National Statistics, Annual Survey of Hours and Earnings 2004

⁴⁰ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁴¹ O.Nankivell (2005) 'The Torbay Economy 1993-2003 : Repairing the Damage' (Torbay Council web site)

Figure 4.2: Economic Output in GVA per Head

	GVA £ per head				GVA £ per head (UK = 100)			
	1998	1999	2000	2001	1998	1999	2000	2001
Torbay	9,996	10,253	10,597	10,949	78	77	76	76
Cornwall (Isles of Scilly)	7,543	7,718	7,971	8,212	59	58	57	57
Plymouth	11,416	11,892	12,475	13,174	89	89	90	91
Bristol	17,917	18,432	18,949	19,450	139	138	136	135
Devon CC	10,002	10,258	10,537	10,897	78	77	76	76
South West	11,686	12,053	12,443	12,873	91	90	89	89
United Kingdom	12,858	13,369	13,917	14,418	100	100	100	100

(Source: Office for National Statistics, Regional Trends 38)

- 4.2.4 The figure below illustrates how the share of economic output in each sector has varied over time. The biggest changes have been in the manufacturing sector, which has experienced mixed fortunes, refer to figure 4.3. The biggest increase has been in the Real Estate/Business sector and the biggest overall decrease was in the Social Services sector during this ten year time period.
- 4.2.5 According to the English Indices of Deprivation 2004 (Revised), 7% of the Torbay population (just over 9,000 persons, nearly 4,000 households) live in an area within the top 10% most deprived in England on the Rank of Income Deprivation. These include parts of Torquay and Paignton Town Centres, Queen Elizabeth Drive in Paignton and Hele and Barton in Torquay. 16% of the Torbay population live in an area within the top 20% most deprived areas on the Rank of Income Deprivation. Torbay ranked 95th out of 354 local authorities in England for income deprivation, just outside the top 25%⁴². The Indices of Deprivation are based on various indicators, including numbers of people receiving state benefits. Because they reflect absolute numbers rather than averages, the Indices may understate the degree of deprivation that exists in small pockets of Torbay.

⁴² The English Indices of Deprivation (Revised) ODPM, Key findings for Torbay, 2004

Figure 4.3: Changes of Composition of Output in Torbay 1993-2003 (%)

Measured by Output	1993	1998	2003
Distribution	18.5	19.0	20.0
Real Estate/Business Activities	16.6	17.8	20.0
Hotels and Catering	14.7	13.1	13.1
Construction	6.1	7.6	8.0
Manufacturing	8.6	12.3	7.9
Health	6.0	6.6	7.7
Other Services	4.9	4.5	4.9
Social Services	6.3	4.8	4.8
Education	5.5	4.4	4.6
Public Admin/Defence/Social Security	4.3	3.3	2.9
Transport and Communication	2.9	3.1	2.7
Financial Services	2.9	2.1	2.0
Electricity/Gas/Water	1.2	0.4	0.7
Fishing	0.8	0.6	0.6
Mining and Quarrying	0.1	0.1	0.1
Agriculture/Forestry	0.3	0.1	0.1
Sanitary Services	0.4	0.1	0.1
Gross Added Value at Basic Prices	100.0	100.0	100

Source: Nankivell, 2005⁴³

4.3 Employment Structure

4.3.1 Figure 4.4 is based on the UK Standard Industrial Classification of Economic Activities 1992 (SIC 92). From this data 'Wholesale and Retail trade and Repairs' would seem to be the largest employment sector, followed by 'Manufacturing'. Due to this categorisation, the dominance of the tourist industry is not immediately apparent. Data from the Torbay Local Plan 1995-2011 based on the 1997 Survey by the ONS, groups together Hotels, Restaurants and Distribution which then accounted for 32.56% of employment, and made this the largest sector⁴⁴.

⁴³ O.Nankivell (2005) 'The Torbay Economy 1993-2003 : Repairing the Damage' (Torbay Council web site)

⁴⁴ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

Figure 4.4: Sex and Industry by Employment Status and Hours Worked
Table Population: All people aged 16 to 74 in employment the week before the Census

Economic Sector	Total	Gender		Male		Female	
		Male	Female	Full Time	Part Time	Full Time	Part Time
Agriculture, Hunting and Forestry	488	379	109	82.6%	17.4%	47.7%	52.3%
Fishing	193	175	18	88.6%	11.4%	33.3%	66.7%
Mining and Quarrying	73	67	6	95.5%	4.5%	100%	0%
Manufacturing	7,860	5,723	2,137	95.4%	4.6%	76.4%	23.6%
Electricity, Gas and Water Supply	302	261	41	96.6%	3.4%	85.4%	14.6%
Construction	4,224	3,938	286	94.6%	5.4%	57.3%	42.7%
Wholesale and Retail Trade, Repairs	9,902	5,049	4,853	83.0%	17.0%	41.3%	58.7%
Hotels and Restaurants	5,504	2,546	2,958	78.3%	21.7%	50.0%	50.0%
Transport, Storage and communications	2,969	2,175	794	90.2%	9.8%	65.6%	34.4%
Financial Intermediation	1,118	454	664	95.4%	4.6%	66.0%	34.0%
Real Estate, Renting and Business	4,573	2,471	2,102	84.0%	16.0%	54.4%	45.6%
Public Admin and Defence, Social Security	2,447	1,363	1,084	92.00%	8.00%	68.2%	31.8%
Education	3,369	916	2,453	75.7%	24.3%	44.3%	55.7%
Health and Social Work	7,508	1,507	6,001	81.9%	18.1%	51.1%	48.9%
Other	2,975	1,420	1,555	75.4%	24.6%	51.4%	48.6%
Torbay totals	53,505	15,457	24,873	87.4%	12.6%	52.6%	47.4%

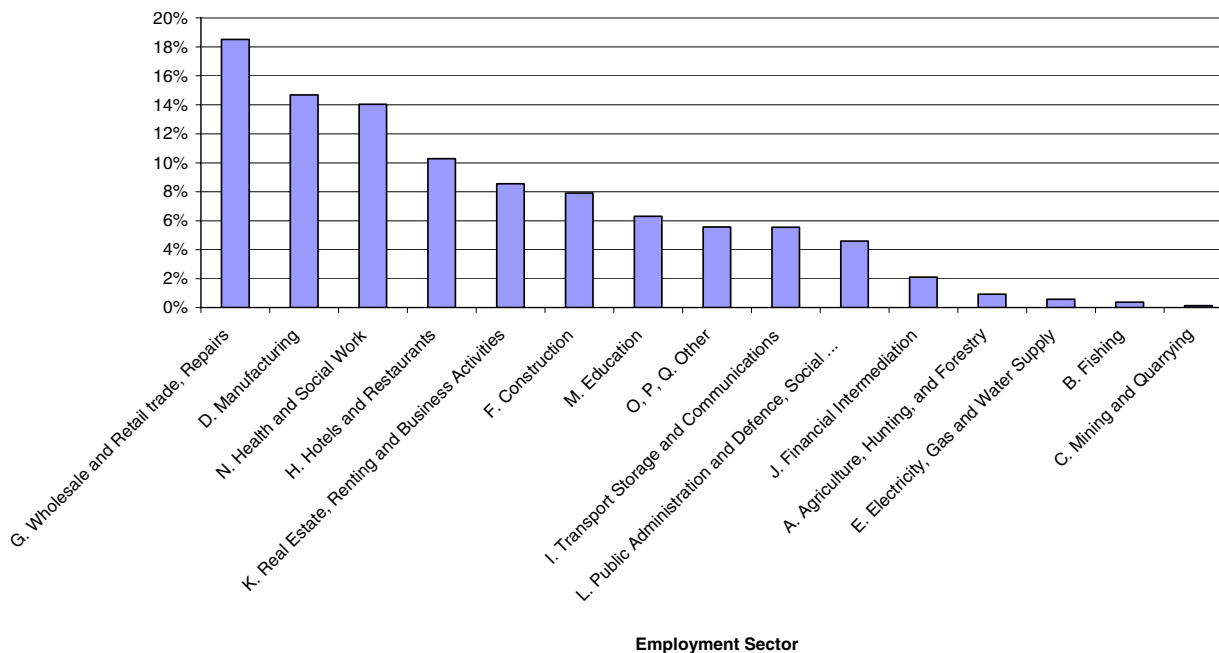
Source: 2001 Census Standard Tables⁴⁵

4.3.2 The dominance of each employment sector can be more easily reviewed in graph form in figure 4.5. The values of each employment sector are expressed as percentages of the total working population aged 16 to 74.

⁴⁵ Office for national Statistics, 2001 Census Data

Figure 4.5

Distribution of Employees by Employment Sector (All PEOPLE aged 16 - 74 in employment the week before the 2001 Census - Torbay Total 53,505 persons)

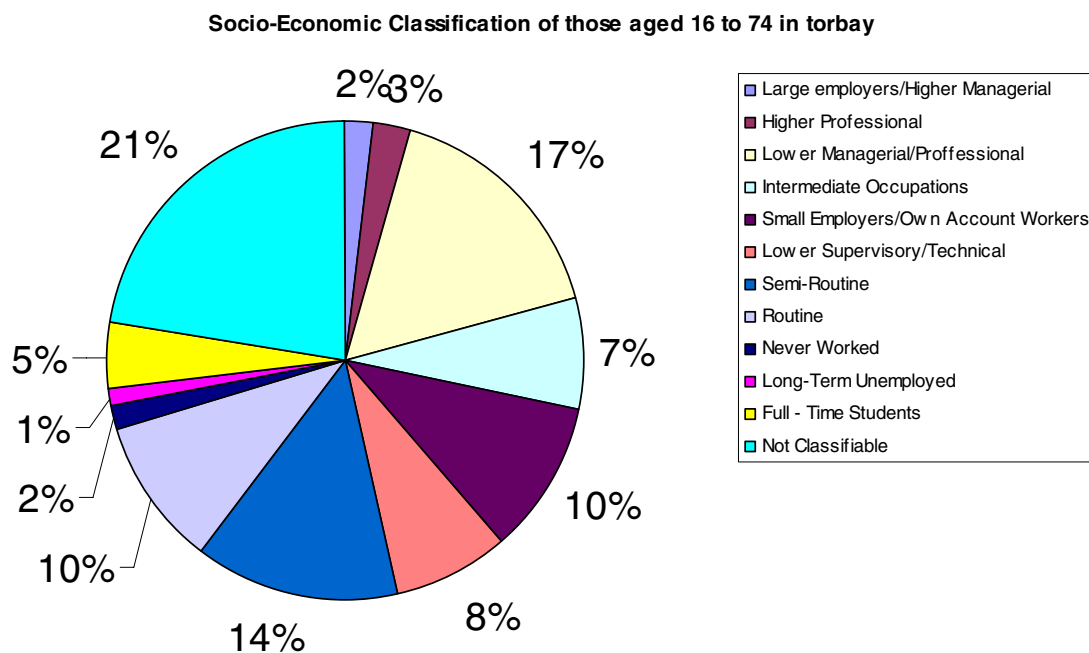


Source: 2001 Census Standard Tables⁴⁶

4.3.3 The below chart (figure 4.6) 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.

⁴⁶ Office for national Statistics, 2001 Census Data

Figure 4.6



Source: ONS Census 2001⁴⁷

Cambridge Econometrics Data

4.3.4 Cambridge Econometrics' data, used by the Regional Assembly, set out employment and gross value added (GVA) data for the Exeter city region and Torbay. These can be used to estimate growth of employment and GVA in Torbay. These are set out in fig 4.7 below. They project a respectable growth rate in Torbay, although this is much lower than Exeter's. It must be emphasised that the figures are extrapolations only and may be unduly pessimistic about Torbay's economic potential, since they reflect the massive reduction of Torbay's opto-electronics sector that coincided with the baseline for these figures. As set out above, Nankivell (2005) suggests that there has been a more recent resurgence in the economy. In addition' it is not clear what area the figures relate to, and they do not follow the Local Authority boundary.

⁴⁷ Office for national Statistics, 2001 Census Data

Figure 4.7 Cambridge Econometrics' Estimates of Employment and Gross Value Added in the Torbay area: Summary of Data

Year	Employment (000s)	Gross value added (£)
2001	65.5	1555.3
2004	61.5	1473.1
2006	62.8	1566.1
2011	64.6	1727.6
2016	66.3	2039.0
2021	67.4	2342.8
2026	68.7	2719.6
Increase 06-26	+5.9	1294.5

Source: Cambridge Econometrics/SWRA⁴⁸

Growth by Sector

Tables to show projected growth areas in Torbay to 2026:

Figure 4.8. Top Ten Growth Sectors by Jobs Created

Rank	Sector	Jobs	Rank by GVA
1	Health/Social Services	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
Total Jobs		5961	

Sources: Cambridge Econometrics/SWRA/Torbay Council⁴⁹

⁴⁸ Cambridge Econometrics Model, provided by South West Regional Assembly 2004

⁴⁹ Ibid.

Figure 4.9. Top Ten Growth Sectors by Gross Value Added 2006-2026

Rank (by GVA)		Growth in GVA (£ million)	GVA per capita (£ Million)	Rank by Jobs created
1	Electronics	301	1.2137	10
2	Health/Social Services	145	0.0758	1
3	Retailing	81	0.0714	2
4	Communications	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	56	0.08069	4
9	Hotels and Catering	55	0.1589	9
10	Business Services	43	0.0642	5

Sources: Cambridge Econometrics/SWRA/Torbay Council⁵⁰

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

4.4 Tourism

Introduction

4.4.1 Marketed as the English Riviera, Torbay is the premier tourist resort in the UK, and include: an attractive shopping centre; Quay West water park; Kents Cavern; Paignton Zoo; a steam railway; picturesque harbours; a model village; 18 beaches; waterfront gardens and country parks. Torbay has traditionally catered for the British 'bucket and spade' holiday but since the mid 1970s nationally this form of holiday has been in decline and Torbay has had to adapt⁵¹

.Economic Input

4.4.2 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. That was until 2003 when there was a sharp increase in visitors to Torbay which became full to capacity, mostly with last minute bookings. This was due in part to the high temperatures experienced during that summer, and the managed reduction of bed space

⁵⁰ Cambridge Econometrics Model, provided by South West Regional Assembly 2004

⁵¹ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

capacity to maintain the quality of Torbay's accommodation. It was hoped that this would mark a return to Torbay's tourism peak but 2004 saw the industry slow again due to bad weather and a slowing economy⁵².

- 4.4.3 During peak holiday season 1 in 3 jobs in the Torbay area is tourism based and 82% of jobs are in service industries, the largest proportion of which are linked to tourism⁵³. As an example of the effect of tourism on the local economy, in 1999 visitors spent £300 million in Torbay, with £107 million being spent on accommodation and £25 million being spent by day visitors. In 2000 Torquay, Brixham and Paignton had a combined bed space of 50,890 from all forms of accommodation⁵⁴. More recent figures from 2003 show that gross income received from tourism was approximately £410 million⁵⁵.
- 4.4.4 Since the mid 1980s there has been a change in emphasis on the types of holiday that are becoming more popular. The shift is from the traditional bucket and spade holiday towards short break, weekend and second holidays. There is also growth in educational and business tourism and activity holidays. Special interest tourism is becoming more popular for example history and ecological tourism. Different people come to Torbay for different reasons. One popular sector is the 'Tinsel and Turkey' breaks which attract older age groups to the larger hotels and are linked to coach tours. Another growth area is that of Language Schools⁵⁶.
- 4.4.5 The 2003 Torbay Visitor Survey⁵⁷ portrayed the typical visitor profile as in the middle to older age groups, less affluent, in adult only groups, staying in serviced accommodation for approximately 7.5 nights. They travel down mostly by car, caravan and motorcycle, but 16 % are on a coach tour. Top activities include shopping, walking on the coast path, spending time on the beach, and visiting other attractions such as Dartmoor, Cockington and Plymouth,

Strategic Targets for Tourism

- 4.4.6 The Torbay Tourism Strategy 1995-2005⁵⁸ set a target of improving the contribution of tourism to the Torbay Economy by 10% by 2005. It is unclear whether this has been achieved. The strategy recommended actions including the increase of marketing activity and improving standards of service, co-ordination and funding within the industry. The strategy also recommended improving beach facilities, tourist attractions, transport links and upgrading accommodation facilities. These themes have been carried forward to the Draft Tourism Strategy 2005-2015⁵⁹.

⁵² Torbay Council (2004), Torbay Principal Holiday Accommodation Areas (PHAA) Monitor, 2004

⁵³ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁵⁴ Torbay Council (2004), Torbay Principal Holiday Accommodation Areas (PHAA) Monitor, 2004

⁵⁵ O.Nankivell (2005) 'The Torbay Economy 1993-2003 : Repairing the Damage' (Torbay Council web site)

⁵⁶ Torbay Council (2004), Torbay Principal Holiday Accommodation Areas (PHAA) Monitor, 2004

⁵⁷ South West Tourism Research Department (December 2003) 'Torbay Visitor Survey 2003'

⁵⁸ Torbay Development Agency, 'The Torbay Tourism Strategy 1995-2005'

⁵⁹ Torbay Development Agency, 'Tourism in Torbay', Tourism Strategy 2005-2015 (Second Draft)

4.4.7 The Local Plan 1995-2011⁶⁰ contains policies for tourism which include the regeneration and development of tourist attractions, the modernisation and upgrading of accommodation, the protection of principal holiday accommodation areas (PHAAs), the diversification of the Torbay economy and of the tourism sector itself and supporting the regeneration of harbour side facilities.

4.4.8 The Torbay Local Plan 1995-2011, and emerging Torbay Tourism Strategy (Torbay Development Agency), seek to increase the quality and value added of tourism and improve the stock of tourism infrastructure and accommodation. In particular there has been significant regeneration at Torquay Harbourside and waterfront, including the creation of the “Living Coasts” marine aviary.

4.5 Manufacturing

4.5.1 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%)⁶¹.

4.5.2 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 levels⁶². 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 (see above figure 4.3).

4.5.3 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 industry⁶³.

4.6 Office Employment

4.6.1 Economic Output from office employment (refer to figure 4.3 under Financial Services) 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 growth⁶⁴.

⁶⁰ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁶¹ Ibid.

⁶² O. Nankivell (2004), ‘The Torbay Economy 1992-2002 – Back to Square One’

⁶³ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁶⁴ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

4.6.2 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 health⁶⁵. 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 Campus⁶⁶.

4.7 Agriculture and Fishing

4.7.1 Overall fishing accounted for only 0.6% of economic output in 2003⁶⁷ but it is Brixham's main industry. Brixham is a major fishing port with the country's second highest landings in value (£14.6 million in 2002/3). In recent years decommissioning has taken place and although the size of the fleet fluctuates from year to year, between 1992 and 2002 the fleet declined from 139 vessels to 101. Changes following the review of EU Common Fishing Policy could lead to a further decline. Approximately 100 additional people are directly dependent on the fishing industry⁶⁸.

4.8 Unemployment

4.8.1 Throughout the early 1990s unemployment was over 10% of the workforce⁶⁹, and although it has not reached these high levels recently, this is due mainly to the low National unemployment rate rather than an improvement in Torbay's position in comparison to other areas. Torbay's unemployment rate, at 2.4% in March 2005, was in line with the National average⁷⁰. There is, however, a significant seasonal fluctuation in the unemployment rate due to the heavy reliance of the economy on tourism⁷¹ see graph below (Figure 4.10).

⁶⁵ O.Nankivell (2005) 'The Torbay Economy 1993-2003 : Repairing the Damage' (Torbay Council web site)

⁶⁶ Torbay Council Torbay (2004) Employment Land Monitor 2004

⁶⁷ O.Nankivell (2005) 'The Torbay Economy 1993-2003 : Repairing the Damage' (Torbay Council web site)

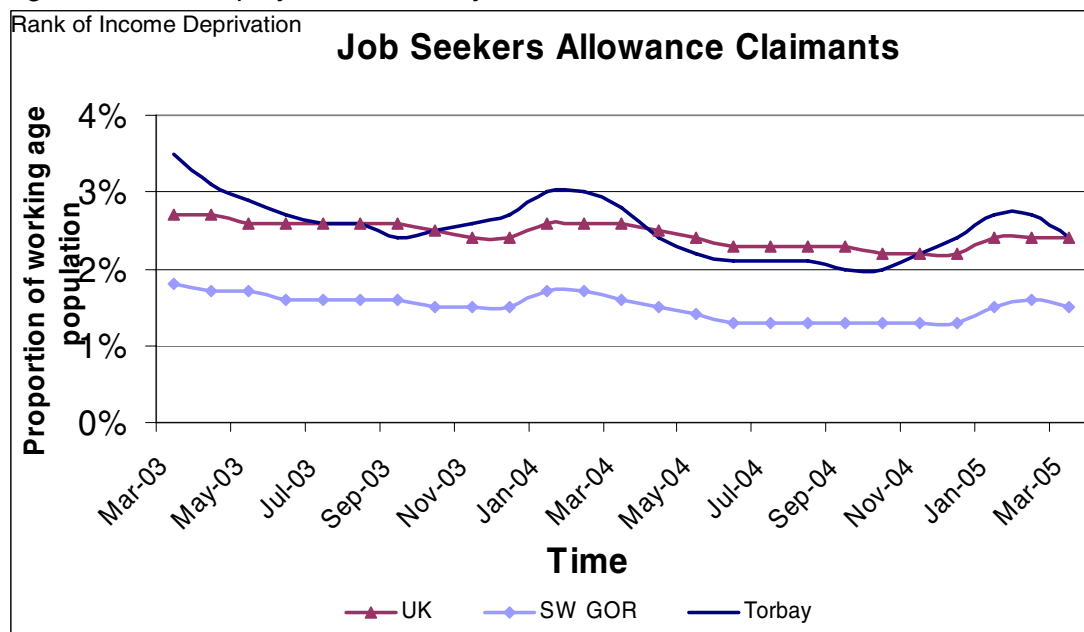
⁶⁸ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁶⁹ Ibid.

⁷⁰ Office for National statistics 'Labour Market Statistics' Nomis (2005) (University of Durham)

⁷¹ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

Figure 4.10 Unemployment in Torbay



Source Nomis 2005⁷²

Figure 4.11: Unemployment Trends in Torbay compared Nationally and Regionally

	Torbay UA %	Devon	South West	UK
Aug 01	4.5	2.1	2.1	3.2
Jan 02	5.6	2.4	2.3	3.3
Aug 02	3.9	2.0	2.0	3.2
Jan 03	3.7	1.8	1.8	2.5
Aug 03	2.6	1.5	1.6	2.6
Jan 04	3.0	1.7	1.7	2.6
Aug 04	2.1	1.2	1.3	2.3
Jan 05	2.7	1.4	1.5	2.4
April 05	2.3	1.3	1.5	2.6

Sources: Torbay Employment Land Monitor, 2005⁷³; Nomis 2005⁷⁴

4.8.2 Female unemployment tends to be lower than male unemployment (refer to table 4.12). This could be due to the relatively higher numbers of women working part time (refer to figure 4.4). High levels of part time employment are also a symptom of underemployment in Torbay as there is a shortage of full time jobs⁷⁵.

⁷² Office for National statistics 'Labour Market Statistics' Nomis (2005) (University of Durham)

⁷³ Torbay Council Torbay (2005) Employment Land Monitor 2004

⁷⁴ Office for National statistics 'Labour Market Statistics' Nomis (2005) (University of Durham)

⁷⁵ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

Figure 4.12: Recent Unemployment in Torbay by Gender.

	Workforce %	Male%	Female%
Aug 01	3.9	5.9	1.9
Jan 02	5.6	8.6	2.7
Aug 02	3.9	6.3	1.7
Jan 03	3.7	5.4	1.8
Aug 03	2.6	3.7	1.4
Jan 04	3.0	4.3	1.6
Aug 04	2.1	3.0	1.1
Jan 05	2.7	3.9	1.4
April 05	2.3	3.3	1.2

Source: Nomis 2005⁷⁶

4.8.3 According to the English Indices of Deprivation 2004 (Revised) 8% (nearly 10,500 people) live in an area within the 10% most deprived in England on the Rank of employment Deprivation. This equates to over 5,300 households. 27.8% of the Torbay population live in an area in the top 20% most employment deprived. These include much of Torquay Town Centre, Paignton Town Centre, Chestnut Estate in Brixham and Preston Town Centre. Torbay ranked 94th out of 354 Local Authorities on the Rank of employment Deprivation⁷⁷.

4.8.4 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 Paignton⁷⁸. The first phase of a regeneration programme at Torquay Harbour side and Waterfront has been completed and major regeneration schemes are proposed in Brixham.

4.8.5 The Torbay Council Economic Regeneration Strategy has four main strands. Firstly to strengthen, improve and expand the manufacturing base and business sector. Secondly to ensure that the area remains one of the UK's premier tourist resorts and conference destinations. Thirdly to enhance the town centre to improve Torbay's role as a Sub Regional Shopping Centre. Lastly to facilitate the regeneration of the most deprived areas through community led local economic initiatives⁷⁹.

4.9 Transport and the Economy

4.9.1 The relationships between transport and the economy are many and complex. Fast, efficient transport networks encourage inward investment as goods can be moved in and out of a location easily. This is especially important in an area such as Torbay where geographical isolation contributes to economic problems. Conversely the location of employment and the

⁷⁶ Office for National statistics 'Labour Market Statistics' Nomis (2005) (University of Durham)

⁷⁷ The English Indices of Deprivation (Revised) ODPM, Key findings for Torbay, 2004

⁷⁸ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

⁷⁹ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

ensuing travel to work patterns make huge demands upon transport provision and infrastructure. Good transport networks also support and encourage tourism, allowing tourists to travel to, from and within an area with relative ease.

- 4.9.2 80% of Torbay residents also work in Torbay, 20% therefore travel out of Torbay to work. In comparison 83% of those who work in the Bay also live there. For work purposes there are flows of around 10,500 people out of Torbay and 7,800 into Torbay. The inter-related travel to work areas include Totnes, Newton Abbot, Teignmouth, Plymouth and Exeter and other parts of Devon. 40% of Torbay residents live and work within the same ward. 45% of Torbay workers live and work in the same town (that is Torquay, Paignton and Brixham). The exceptions include Torquay and Paignton town centres and Torbay Hospital⁸⁰.

⁸⁰ Torbay Council (2005), Draft Provisional Local Transport Plan 2006-2011

5 SEA Topic: Landscape and Heritage

5.1 Landscape:

The Regional context

- 5.1.1 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 farming⁸¹.
- 5.1.2 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.
- 5.1.3 In addition to those character areas identified by the Countryside Agency the South West also contains 2 National Parks of Dartmoor and Exmoor and 12 Areas of Outstanding Natural Beauty.

The Local context

- 5.1.4 Torbay itself 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.
- 5.1.5 At present Torbay is classified at a County level as falling within the Character Area 'Tourist Riviera'⁸². This stretches from Dawlish Warren to Berry Head, incorporating all of Torbay. The main characteristics are identified in Box 1².

- 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.

- 5.1.6 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.

⁸¹ Our Environment Our Future 2004 - 2014, South West Regional Assembly (July 2004)

⁸² Devon County Council (2002) 'The Devon Landscape'

- 5.1.7 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.
- 5.1.8 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 (See Figure 8.2 Section 8: Soils).
- 5.1.9 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.
- 5.1.10 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 5.1).
- 5.1.11 Additional green wedges are created by the Countryside Zones which provide an important function preventing merging of urban areas and settlements. The land surrounding Brixham is designated by the Countryside Agency as the South Devon AONB (see figure 5.1) and partially by a Countryside Protection Area. There is a strong requirement to protect these areas from increased traffic, lighting, noise and pollution.
- 5.1.12 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 for barn conversions 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.
- 5.1.13 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 agri-environment schemes, there remain concerns that the schemes such as the Countryside Stewardship have been under-resourced.

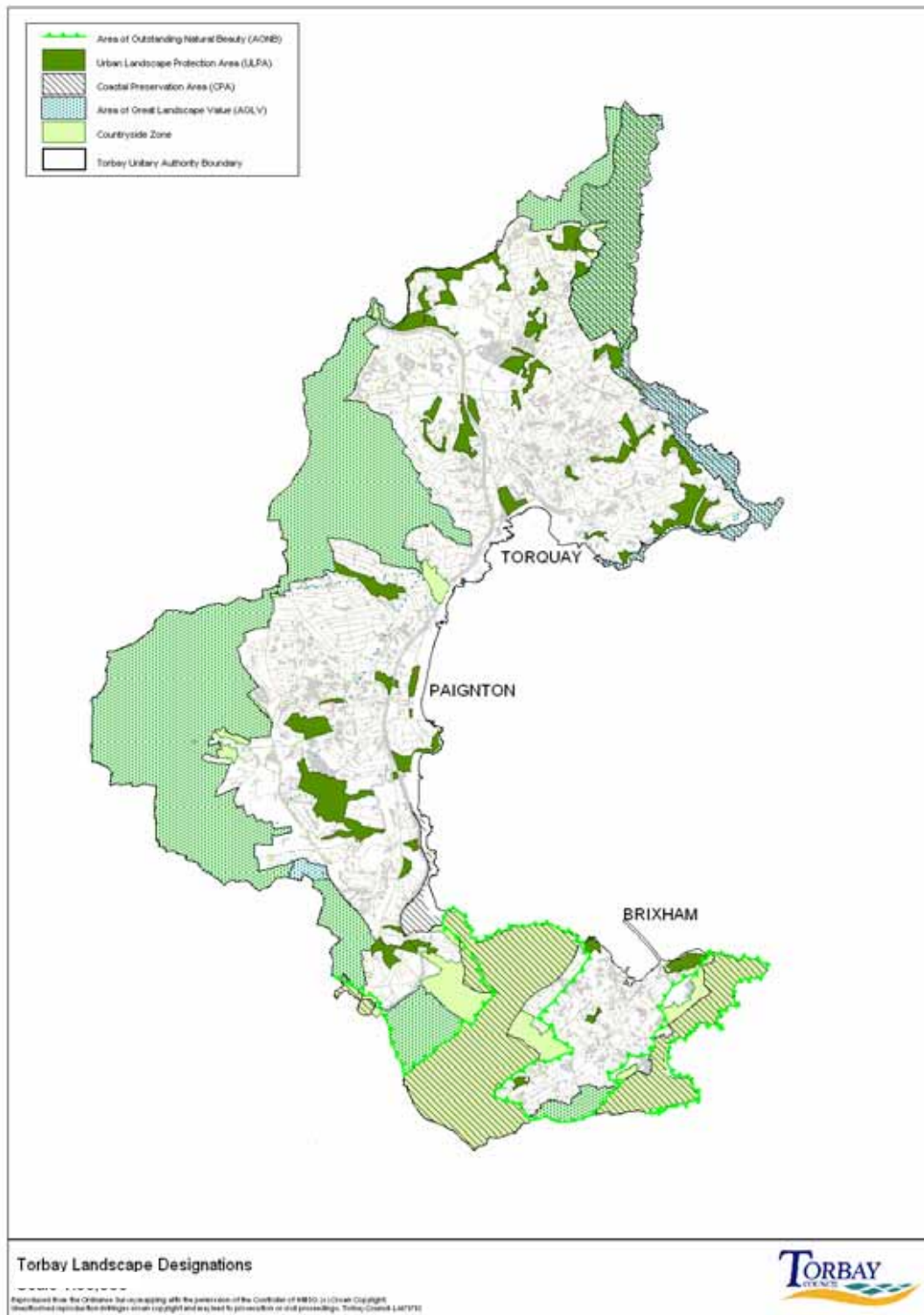


Figure 5.1 Landscape Designations in Torbay

5.1.14 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 5.1). 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.

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

5.1.16 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 Plan 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.

5.2 Heritage

5.2.1 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. In addition to providing the residents of Torbay with a fine parks, woodlands, buildings and landscapes Torbay's Heritage also plays an important role in the tourist industry encouraging a significant number of visitors to Torbay.

The Regional context

5.2.2 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)⁸³. 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 whole³ with £860,000 from Heritage Lottery fund for 15 projects. Torre Abbey has secured its bid and the Palace Theatre is currently under consideration.

5.2.3 Other assets of importance in the South West as identified by the Regional Assembly include Historic Landscapes (field systems and settlement patterns), 3 (out of 15) globally designated World Heritage Sites, a number of historic settlements (including Bristol, Bath, Exeter and Plymouth), 287 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.

The Local Context

5.2.4 Within Torbay itself 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). In

⁸³ 'Our Environment: Our Future' Regional Strategy for the South West 2004 – 2014, South West Regional Assembly and South West Regional Environment Network

addition to this other buildings which display Torbay's heritage include Oldway Mansion, the Palace Theatre, the Pavilion, Paignton Town centre, Brixham and Torquay harbourside area⁸⁴. There is a total of 23 conservation areas in Torquay which have been designated due to their special architectural or historic character which it is recognised should be preserved or enhanced. Such areas include for example Torquay Harbour, St Marychurch, Babbacombe Downs, Belgravia in Torquay, Polsham Park and Roundham in Paignton and Higher Brixham and Galmpton in Brixham. 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.

5.2.5 Torbay has 860 listed buildings of Historic or architectural interest as of the 2004 Buildings at Risk (BAR) survey⁸⁵. 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 BAR register held by the Torbay Council indicates that 44 of the listed buildings in Torbay are at risk, of which 1 is a category 1, and 8 are category 1A 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. Regionally in 2002-2003 nearly one in 12 listed buildings was subject to planning applications of which 89% were granted consent.

5.2.6 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.

5.2.7 Village Design statements are being prepared for Torbay in an effort to describe distinctive local character and to ensure that new development fits in with its surroundings. There is a proposal for a Village Design Statement at Maidencombe, northeast of Torquay. Village Design Statements will form Supplementary Planning Guidance to the Local Plan⁸⁶.

5.2.8 The number of historic parks and gardens in Torbay has increased from 3 in 1983 (Watcombe Park, Castle Tor and Lupton Park) with additional sites added in 1997 (Oldway Mansion), 2001 (Princes Gardens and Royal Terrace Gardens) and 2002 (Barton Road Cemetery). The register of Parks and Gardens of Historic Interest is currently being reviewed by the University of York. There is no information available at present on the condition of these

⁸⁴ Torbay Council (2004) 'Chill Out it's Your Life: Developing Torbay's Culture' – Draft'

⁸⁵ Torbay Council, Buildings at Risk (BAR) survey 2004

⁸⁶ Torbay Council (2004) Adopted Local Plan 1995-2011

sites however it is anticipated that English Heritage will collect such data in the near future.

- 5.2.9 Torbay has some 14 Scheduled Ancient monuments including buried sites and shipwrecks which are protected by law⁸⁷. 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. More information is needed concerning the condition of these monuments.

⁸⁷ Torbay Council (2004) Adopted Local Plan 1995-2011

6 SEA Topic: Population and human health

6.1 Population:

6.1.1 Torbay has a resident population of 131,300 (mid 2003), comprising 2.6 % of the South West population⁸⁸. The population of Torbay is increasing with recent trends indicating a 1.23% increase between 2001 and 2003. This is roughly in line with the South West where growth over the same period stood at 1.44%¹. Population projection estimates in December 2004 indicate that by 2010 Torbay's population would have increased by 6.7% and 23.31% by 2028¹. Figure 6.1 indicates that compared to other areas in Devon this rate is relatively high. This has serious implications for the future provision of services and increasing pressures for development and generation of traffic. It should be noted that in addition to this Torbay experiences significant increases in population at peak times in the tourist season adding a further 80,000 visitors across the bay.

Area	2003 Mid Year Estimate ('000s)	Estimated population growth		
		2003 to 2010	2003 to 2020	2003 to 2028
Devon County	714.9	5.78%	13.95%	20.10%
East Devon	126.7	6.71%	16.34%	23.91%
Exeter	113.3	4.94%	11.03%	15.62%
Mid Devon	71.2	7.44%	17.70%	24.86%
North Devon	88.9	5.62%	13.61%	19.46%
Plymouth	241.5	0.54%	1.99%	3.60%
South Hams	81.8	2.32%	6.72%	10.64%
South West	4,999.3	4.59%	11.35%	16.47%
Teignbridge	122.6	5.79%	14.27%	20.80%
Torbay	131.3	6.70%	16.37%	23.31%
Torridge	60.9	9.20%	21.18%	29.39%
West Devon	49.6	4.84%	11.90%	17.34%

Figure 6.1: Estimated Population Growth for the South West Region¹

6.1.2 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 constrained by natural topography have a high average population density relative to other areas within Devon. The average density in Torbay is 20.6 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 6.2). This can be compared to 1.1 persons per hectare in Devon, 2.1 in the South West Region and 3.4 in England and Wales¹.

6.1.3 As figure 6.3 illustrates Torbay's population is skewed towards a high proportion of elderly residents compared to national averages. This emphasises Torbay's role as a place to retire with 23% of the population aged over 65 compared to a national figure of 16%⁸⁹. This has implications for health care and service provision as well as for increasing pressures for

⁸⁸ The Consultation and Research Team, Torbay Council (2004) 'Quarterly Key Statistics for Torbay'

⁸⁹ Primary Care Trust (2004) Annual Report for Torbay 2003-2004

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 encouraging young qualified and older experienced workforce 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 2021⁹⁰.

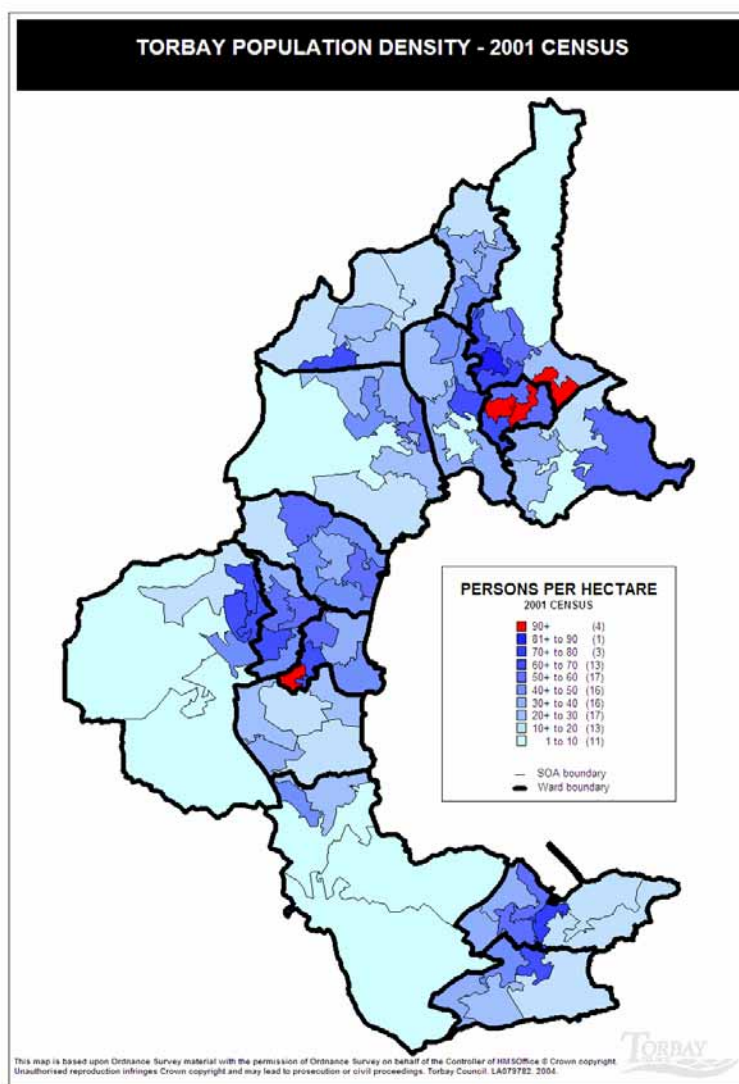


Figure 6.2: Torbay Population density: 2001 census⁹¹

⁹⁰ Torbay PCT and Teignbridge PCT (2004) 'Strategic Service Development Plan 2004-2014'

⁹¹ The Consultation and Research Team, Torbay Council (2004) 'Quarterly Key Statistics for Torbay'

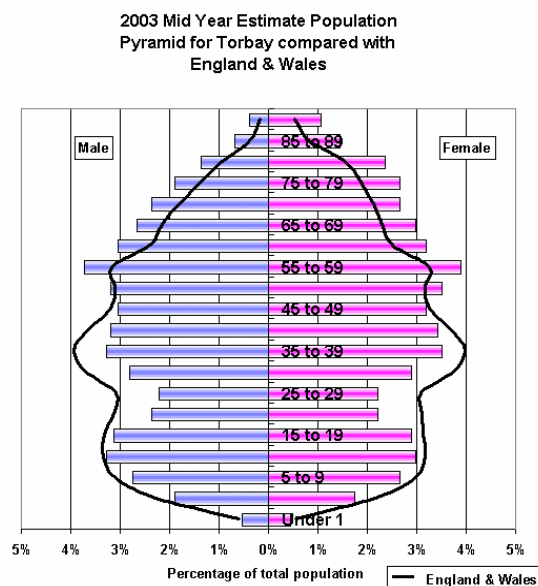


Figure 6.3: 2003 Mid-Year Estimate Population Pyramid for Torbay compared with England and Wales (Corporate Governance, Torbay Council 2004)⁹²

6.2 Health:

Life Expectancy:

6.2.1 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 2000-2002 stood at 76 years and female at 81 years⁹³.

Mortality from Killer Diseases:

6.2.2 Mortality from circulatory diseases (under 75 years of age) has declined substantially from 1995/1997, parallel to England's trends and although has seen a slight increase in 2001/2003 still remains below the local threshold set for the 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.

6.2.3 The majority of cancer deaths are from lung cancer which has brought the National anti-smoking campaign to a local level. The latest figures (Nov. 2004) show a national and Torbay prevalence of smoking at 28%⁹⁴. Local opinion polls indicate support for smoke-free workplaces and public spaces. This is being pursued through Torbay Community Plan targets.

⁹² The Consultation and Research Team, Torbay Council (2004) 'Quarterly Key Statistics for Torbay'

⁹³ Primary Care Trust (2004) Annual Report for Torbay 2003-2004

⁹⁴ Torbay Primary Care Trust Personal Communication Debbie Stark Torbay PCT (March 2005)

The Elderly:

- 6.2.4 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. As a consequence of this increased pressure is placed on family 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. Figure 6.4 illustrates that this is very high in comparison with other areas.
- 6.2.5 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.

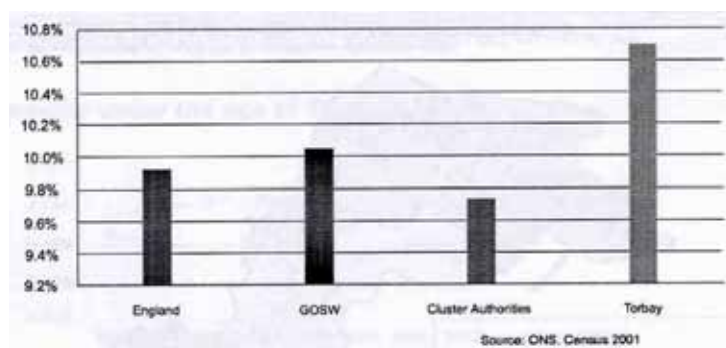


Figure 6.4: Proportion of population providing unpaid care⁹⁵

Dental Care:

- 6.2.6 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. The system of NHS dental registrations has changed in the past year and will cease from April 2006. Torbay has noted a deregistering of at least 840 children and 2,400 adults. A proportion of these have transferred to private dental care but a proportion unwilling or unable to pay the private fees are without dental care⁹⁶.
- 6.2.7 The problem is recognised at both national and local level. The Primary Care Trust (PCT) has been working with local dentists and the Department of Health (DH) to assist in recruiting additional dentists to work with patients offering NHS care. There are positive plans in the pipeline to increase NHS capacity, but this will take months rather than weeks to show improvements in patients being able to access ongoing NHS care. There is also a background of all dentists who offer any NHS care needing to move to a new contract before April 2006, and that increases local uncertainty. The PCT has been working with South Devon Healthcare Trust to improve capacity within the salaried dental service for unregistered patients with an urgent dental need to

⁹⁵ South Devon Healthcare (2001) Modernising Healthcare in South Devon

⁹⁶ Primary Care Trust (2004) Annual Report for Torbay 2003-2004

be seen. An additional surgery has been created and recruitment of a dentist is progressing. This is fundamental to improving access for unregistered people whilst other plans are put in place for ongoing care⁹⁷.

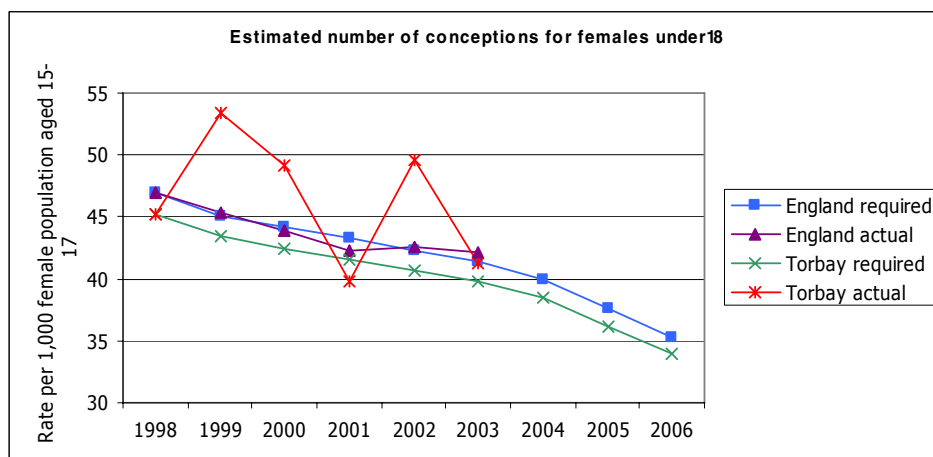
Obesity:

6.2.8 Obesity is an increasing problem both nationally and locally with 20% of men and women being obese (Health Survey for England)⁹⁸. In 1998 in Torbay 60% of men and nearly 75% of women 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. Efforts are currently 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

Teenage Conceptions:

6.2.9 There has been an identified need to reverse the trends for teenage conceptions which, although erratic remain largely above Torbay and England targets. The rates of teenage conceptions are highest in wards with high levels of deprivation, linked to a lack of job opportunities, high numbers of looked after children and school exclusions, a lack of youth provision, and homelessness.

Figure 6.5: Estimated Number of Teenage Conceptions⁹⁹



Health Service Provision:

6.2.10 The Strategic Service Development Plan 2004-2014 outlines a number of Primary Care Trust priorities for investment in Torbay’s healthcare. These include:

⁹⁷ Torbay Primary Care Trust Personal Communication Debbie Stark Torbay PCT (March 2005)

⁹⁸ Primary Care Trust (2004) Annual Report for Torbay 2003-2004

⁹⁹ Ibid.

- 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, improved waiting times and potential to meet anticipated demands of new technology¹⁰⁰. 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.

6.2.11 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 deprivation for health and disability in Torbay (2004) highlight a number of core areas where health deprivation is within the top 20% most deprived areas in the UK including parts of Roundham with Hyde (Paignton) and Ellacombe and Torhmohun (Torquay)¹⁰¹. The least deprived areas include St Marychurch, Cockington, Churston with Galmpton and Goodrington with Roselands (see figure 6.6)

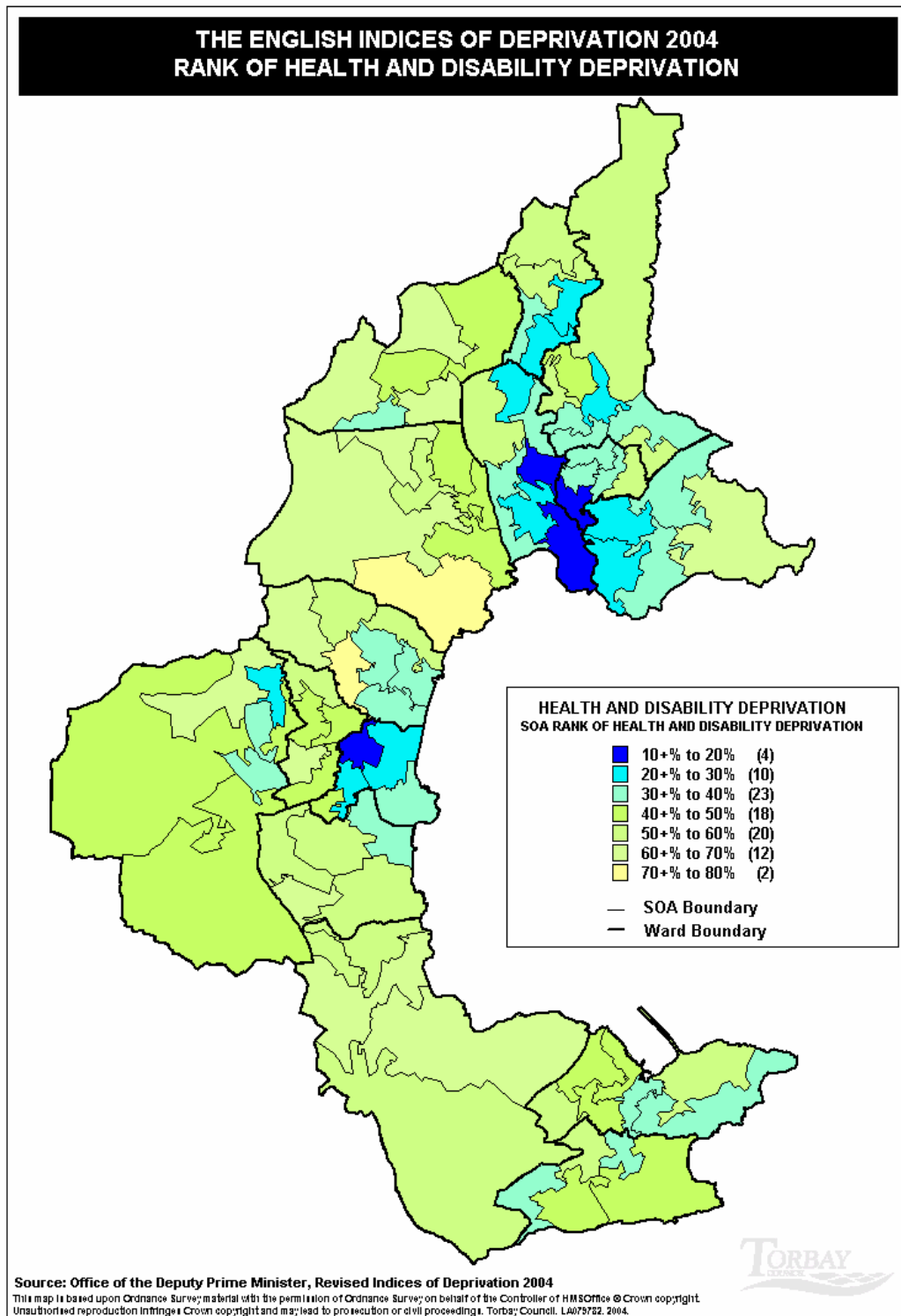
6.2.12 Accessibility to health services is raised in the Primary Care Trust Strategic Service Development Plan (2004) as an issue in terms of physical access and local provision of services. This is especially problematic for the elderly and socially isolated and is exacerbated by the topography and 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.

6.2.13 The South Devon Hospital at Torquay has a patient transport service for the elderly and mobility impaired however there is a recognised 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 recognised 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 (refer to Appendix 1, Chapter 7, section 7.4).

¹⁰⁰ South Devon Healthcare (2001) 'Modernisation Healthcare in South Devon'

¹⁰¹ Research Team (2004 – Revised) 'The English Indices of Deprivation 2004 – Key findings for Torbay'

Figure 6.6: Index of Deprivation 2004 – Rank of Health Deprivation and Disability¹⁰²



6.3 Road Traffic Accidents:

¹⁰² Research Team (2004 – Revised) ‘The English Indices of Deprivation 2004 – Key findings for Torbay’

6.3.1 Data relating to casualties (figure 6.7) caused by road accidents is erratic in nature but indicates a definite downward trend in the number of fatal and serious casualties, which remain below the Department of Transport target. The Local Transport Plan Annual Progress Report 2004¹⁰³ indicates that the number of pedestrians killed or injured is also low and remains well below the target set by the DfT. The number of children killed or seriously injured has also decreased since 1999 and remains below Department of Transport 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.

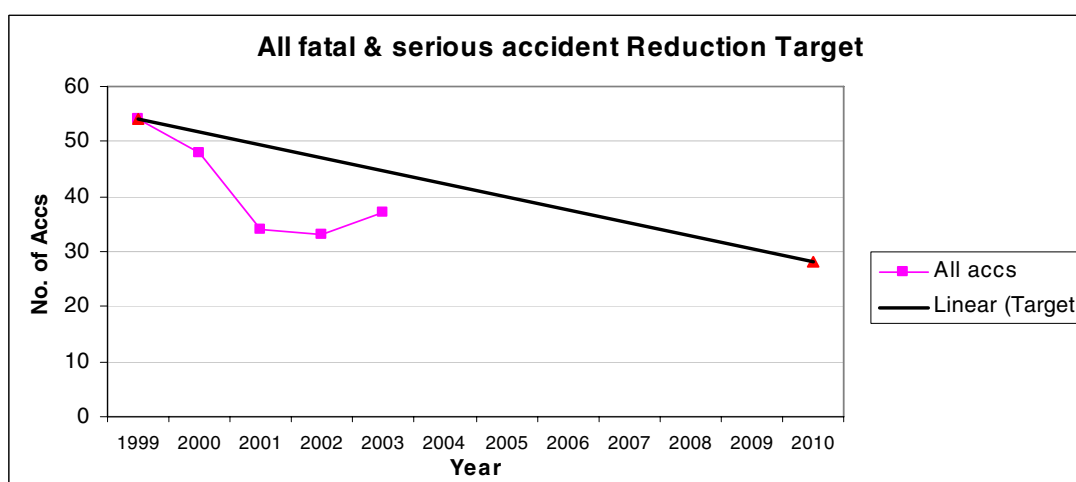


Figure 6.7: Torbay fatal and serious all categories¹⁰⁴

6.4 Noise

6.4.1 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.

It has been highlighted in the Statement of Licensing Policy that future Transport Plans should recognise the need to disperse people from town

¹⁰³ Torbay Council (2004) 'Annual Progress Report - Local Transport Plan 2001-2006'

¹⁰⁴ Torbay Council (2004) 'Annual Progress Report - Local Transport Plan 2001-2006'

centres swiftly and safely, particularly late at night, to avoid concentrations which produce disorder and disturbance.

7 SEA Topic: Social Inclusiveness

7.1 Introduction

- 7.1.1 More than a third of people in Torbay live in an area that is within the top 20% most deprived in England on the Rank of Living Environment Deprivation (See figure 7.1) and almost 22% live in an area within the top 10% most deprived in England on the same index. Areas within the top 10% include Torquay, Paignton and Brixham town centres and Queen Elizabeth Drive in Paignton¹⁰⁵. Such areas experience conditions such as poor social and private housing condition, poor air quality and an increased likelihood of road traffic accidents involving injury to pedestrians and cyclists. At a national level more than a quarter of child pedestrian casualties happen in the most deprived 10% of wards¹⁰⁶.
- 7.1.2 The report by the Social Exclusion Unit (2003)¹⁰⁷ 'Making the Connections' highlights five areas as being the most important in terms of accessibility, namely:
- Access to employment, in terms of job finding and attendance for work,
 - Access to learning, for all age groups
 - Access to healthcare, including hospital, dentist and GP and other primary services
 - Access to food, especially for those without a car
 - Access to cultural and sporting facilities
- 7.1.3 In addition the report highlights that major new developments such as shops, offices, leisure complexes, hospitals and colleges are frequently placed in locations difficult to reach without access to a car. Public transport provision has often not adapted rapidly enough to new developments. Torbay Council is trying to address this through co-operation with bus operators.
- 7.1.4 This baseline survey covers the five areas outlined by the report. It also highlights the major issues concerning access to housing and crime statistics for Torbay

¹⁰⁵ Research Team (2004 – Revised) 'The English Indices of Deprivation 2004 – Key findings for Torbay'

¹⁰⁶ Social Exclusion unit (Feb 2003) 'Making the Connections: Final Report on Transport and social Exclusion' ODPM

¹⁰⁷ Ibid

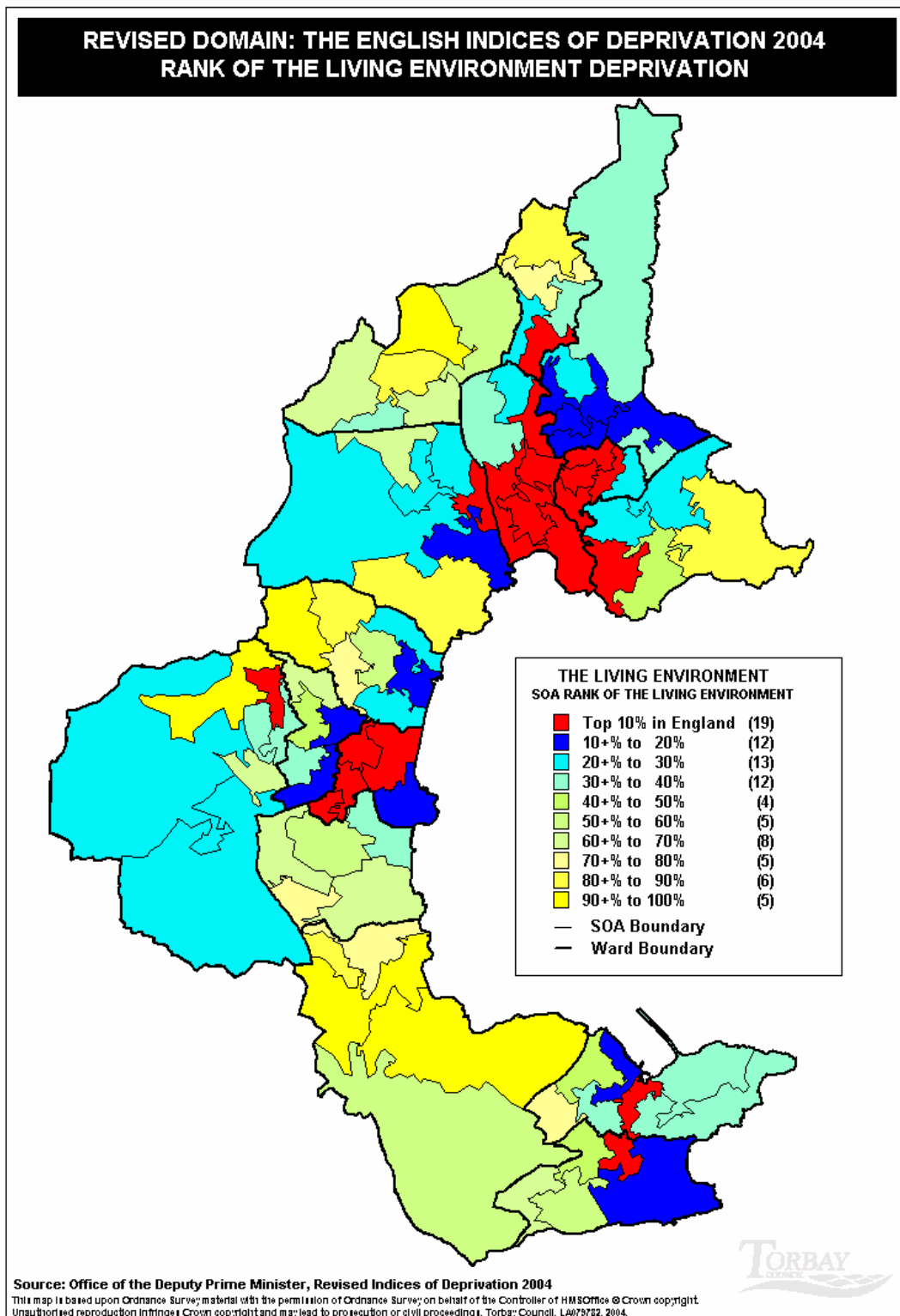


Figure 7.1: Index of Deprivation by Living Environment¹⁰⁸

¹⁰⁸ Research Team (2004 – Revised) ‘The English Indices of Deprivation 2004 – Key findings for Torbay’

7.2 Access to Employment

- 7.2.1 Employment in Torbay is mainly discussed in section 4. In terms of accessibility 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.
- 7.2.2 These patterns combined with a significant commuter population create a number of issues in terms of access. For those using public transport cost becomes 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 finishes¹⁰⁹.

7.3 Access to Learning

- 7.3.1 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.
- 7.3.2 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.
- 7.3.3 The standard of teaching and learning in schools is regularly assessed by Ofsted and Torbay schools have a good track record. No school is considered to have a serious weakness requiring special measures. Schools are improving in line with national progress and receive focussed support. Ofsted also inspect the work of the LEA in its leadership and development of the education service. The inspection of the LEA in 2004 noted that there needs to be a greater shared understanding of inclusion and improved support for 14 to 19 year old education¹¹⁰. These are two priority areas for the LEA.
- 7.3.4 Achievement levels across Torbay are generally at or above National Levels. For example in 2003 in Torbay 89% of pupils achieved 5 or more GCSEs grade A* to G, compared to 86% nationally; and in Torbay 52% of pupils achieved 5 or more GCSEs grade A* to C, compared to 53% nationally¹¹¹.

¹⁰⁹ Torbay Council, Torbay Draft Provisional Local Transport Plan (2006 - 2011)

¹¹⁰ Torbay LEA, Inspection Report Summary', 2004

¹¹¹ Torbay Learning and Cultural Services, 2005

- 7.3.5 However despite this positive feedback there remain a small number of problematic pockets of deprivation in relation to education. The 2004 Indices of deprivation¹¹² indicate that 3 Super Output Areas (SOAs) are in the top 10% in the ranking of education deprivation, skills and training and a further 7 in the top 20%. Such areas include Watcombe and Ellacombe in Torquay and Roundham with Hyde and parts of Blatchcombe in Paignton (see figure 7.2).
- 7.3.6 Additionally there is a recognised need to further promote lifelong learning and help people develop the skills and knowledge necessary to improve income levels and diversify the economy. There is also a recognised need to provide high quality information and services for adults wishing to learn and increase their employability¹¹³ and in association with this a need to expand the number of vocational courses available.
- 7.3.7 Torbay has a relatively high number of children who are not taught in mainstream schools. There is a marked need to reduce this number through an effective inclusion strategy and better provision of early intervention and support for families experiencing difficulties¹¹⁴
- 7.3.8 Torbay is experiencing falling rolls in primary schools. Numbers have fallen since 2000 and continue to fall, in line with national trends. Despite significant new housing developments in Torbay, these are not enough to counteract the fall in birth rates. Forecasts indicate that across the bay there will be a drop of 700 primary aged pupils between 2000 and 2007. In order to avoid excess surplus school placements with their ensuing financial and educational problems, it may be necessary to adjust school capacity. This may mean for example removing poor quality accommodation, closing two larger schools and building a new smaller school. The Council has already reorganised primary education in Brixham and is about to consult on building a new 420 place school in Foxhole to begin this process in Paignton¹¹⁵
- 7.3.9 The education Development Plan Activities 2003/04 Review has inclusion as a major priority (Priority B). Ofsted however, found that the LEA's strategy for social inclusion was "unsatisfactory, despite good examples of collaborative working and operational strength in important areas"¹¹⁶. The report also found that there had not been enough consultation with young people and the minority ethnic population. Torbay recognises in its self evaluation that effectiveness in promoting racial equality is unsatisfactory.
- 7.3.10 The main relationships between schools and transport are connected with the traffic generated by schools and the associated congestion, safety issues and air quality problems, for example air quality problems associated with Hele Road, Torquay (see Air Quality section 1). Currently Torbay Council is promoting School travel plans in order to alleviate these

¹¹² Research Team (2004 – Revised) 'The English Indices of Deprivation 2004 – Key findings for Torbay'

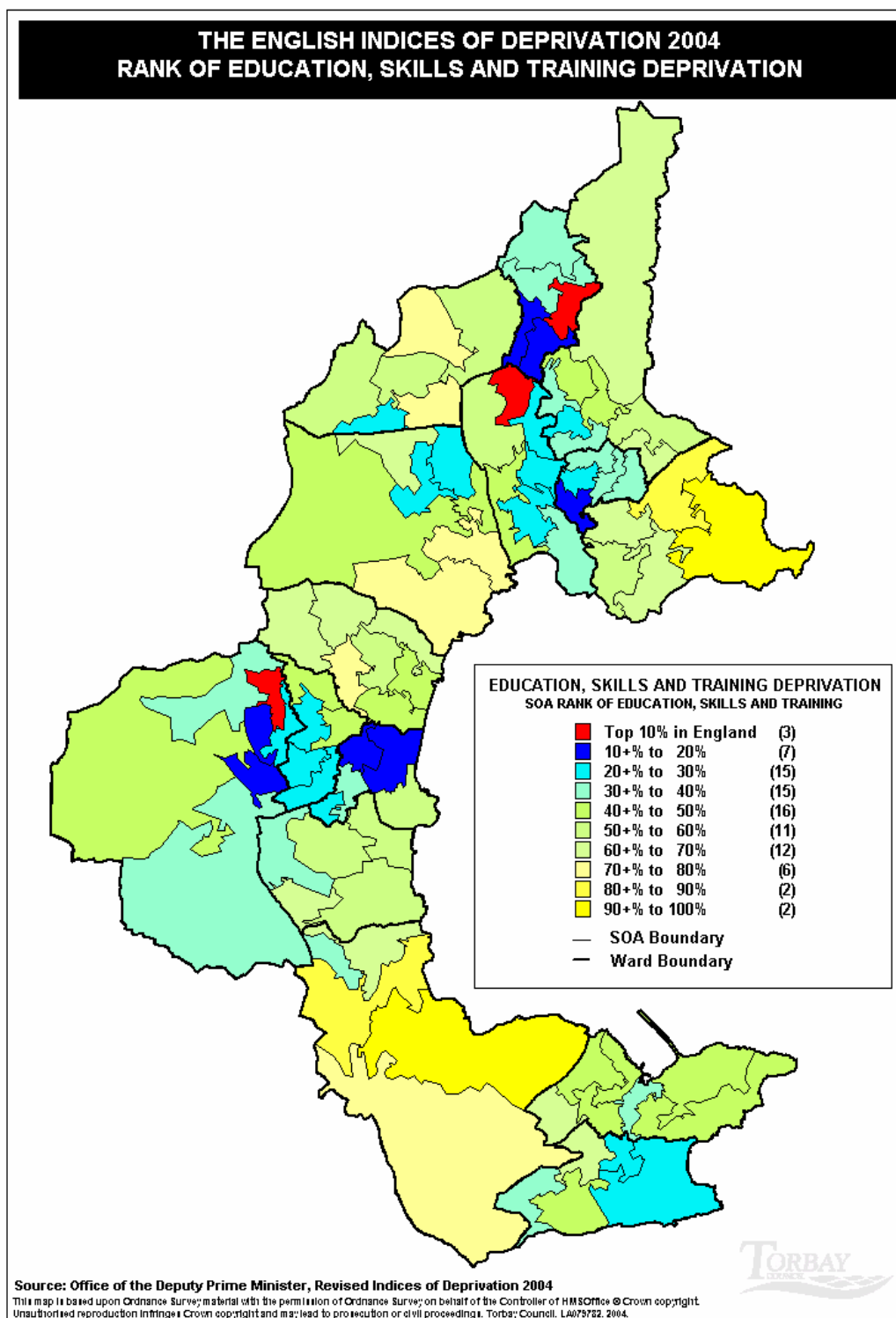
¹¹³ Torbay Strategic Partnership (2004) 'Torbay Community Plan'

¹¹⁴ Social Exclusion unit (Feb 2003) 'Making the Connections: Final Report on Transport and social Exclusion' ODPM

¹¹⁵ Torbay Council (June 2004), 'Review of Primary School Places in Torquay and Paignton,' Report to Business and Development Meeting (unpublished)

¹¹⁶ Torbay LEA, Inspection Report Summary', 2004

Figure 7.2: Education and Skills Deprivation¹¹⁷



7.3.11 The 2005 'Hands Up' Survey¹¹⁸ recorded how pupils travel to school, with a response rate of 90%. Brixham Community College, Torquay Community College, and Brixham Community College, Torquay Community College, have problems, with an associated grant of up to £10,000 to provide facilities such

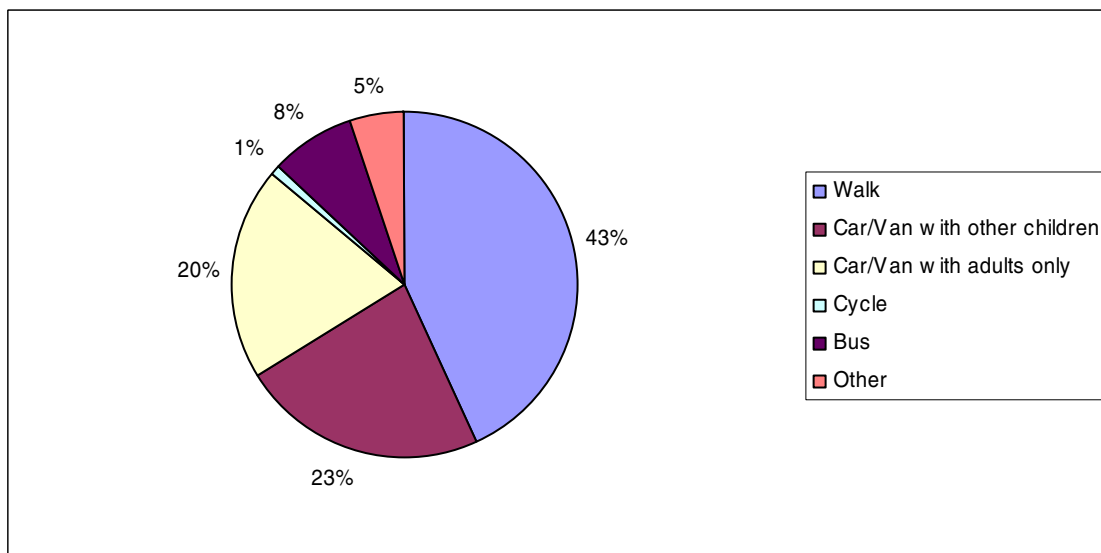
¹¹⁷ Research Team (2004 – Revised) 'The English Indices of Deprivation 2004 – Key findings for Torbay'

¹¹⁸ Transport Team (2005) 'Hands Up Survey 2005,' Torbay Council

as secure cycle parking (Churston Ferrers Grammar School) or traffic barriers (Eden Park Infants and Junior Schools)¹¹⁹.

7.3.12 College and Upton St. James Primary School had the highest walk to school levels in Torbay at 68% (see figure 7.3).

Figure 7.3: Travel to School 2005 Patterns in Torbay



Source: Torbay Council Hands Up survey 2005¹²⁰

7.3.12 In theory widespread education provision should reduce the need to travel. Although widespread throughout Torbay, a number of areas have insufficient education provision for mainstream schooling. These include the Willows (Torquay) and Great Parks (Paignton) areas. A lack of sixth form facilities in Brixham means that these students have to travel at least as far as Paignton

7.3.13 Torbay has several popular grammar and denominational schools which attract students from a wide catchment. The three special schools also have wide catchments, transport for these being mostly provided by contract vehicles. Additionally emphasis on parental choice in education has led to a complicated pattern of movement to and from schools¹²¹.

7.3.14 The main facility for adult learning is South Devon College which is currently relocating to the edge of Paignton. This has created the need for a new bus service, the 12A to meet the demands of students and staff. The new 12A route will be equipped with brand new double decker buses with CCTV from the first of June 2005¹²².

¹¹⁹ 'Torbay Travel Trail' Issue 1, Summer Term 2005, Torbay Council

¹²⁰ Transport Team (2005) 'Hands Up Survey 2005,' Torbay Council

¹²¹ Ibid.

¹²² Transport Team, Personal Communication with Geoff Coleman, Senior Public Transport Co-ordinator, April 2005

7.4 Access to Healthcare

- 7.4.1 The health care baseline is discussed in Appendix 1, Chapter 6. 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.
- 7.4.2 Problems with access to an NHS dentist are discussed in Appendix 1, Chapter 6, Section 6.2. Access to GP services, especially by the elderly can also be difficult. The challenges associated with the large proportion of elderly residents in Torbay are discussed in Appendix 1, Chapter 6, Section 6.1 and 6.2. 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.
- 7.4.3 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 65¹²³.

7.5 Access to Food

- 7.5.1 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).
- 7.5.1 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 food¹²⁴.

7.6 Access to cultural and sporting Activities

- 7.6.1 A wide range of activities are included in this category. In and around Torbay there are facilities to serve both the local population and the many visitors that the area attracts. These facilities include: major attractions (for example Living Coasts); libraries and museums; 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 Park). Naturally occurring features also offer recreational facilities, for example 18 local beaches and the South West Coast National Trail.

¹²³ Transport Team, Personal Communication with Geoff Coleman, Senior Public Transport Co-ordinator, April 2005

¹²⁴ Torbay Council, Torbay Draft Provisional Local Transport Plan (2006 - 2011)

- 7.6.2 Families in the South West spend more on recreation and culture than they do on either housing, or food and non-alcoholic drinks. 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 disadvantaged¹²⁵.
- 7.6.3 In terms of community facilities the following key issues have been identified in the Draft Provisional Local Transport Plan¹²⁶:
- 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
- 7.6.4 Community facilities in Torbay are generally well dispersed. However there remain issues with the quality of sporting infrastructure. Surveys commissioned by Torbay Council indicate that 30% of facilities are considered to be in poor or very poor condition. Accessibility to community facilities is also an issue due to income and employment deprivation¹²⁷.
- 7.6.5 In 1994 the Council commissioned research into playing pitch provision and found that there was a shortfall of 75.3 hectares in Torbay¹²⁸. The study also identified serious dissatisfaction with the quality of existing facilities, with car parking identified as one of the main problems, along with social facilities, drainage and the quality of the pitch surface.
- 7.6.6 Torbay is running out of cemetery land and the existing cemeteries have no room for expansion. Two new sites have been allocated at Collaton St. Mary in Paignton and Mathill Road, Brixham.

7.7 Access for the Disabled

- 7.7.1 Torbay Council Policy on inclusion has three broad objectives as set out in the Equality and Inclusion Policy Document 2004-2005. These are:
- Everyone has the right to be included
 - Everyone has the right to be treated fairly
 - Everyone has the right to equality of access.
- The policy document also includes training for staff to improve awareness of equality issues. The term 'disabled people' has been adopted by the Council as including those with physical and sensory impairment, learning disabilities and mental distress.

¹²⁵ South West Observatory website, 'Culture Home Page and Highlights' accessed 02/02/05

¹²⁶ Torbay Council, Torbay Draft Provisional Local Transport Plan (2006 - 2011)

¹²⁷ Torbay Council (2001) 'A Sports Strategy for Torbay – Consultation Draft'

¹²⁸ 'Pitching it Right – Torbay Study of Pitch Demand and Provision' Bennetts Recreation Planning Research, (1995)

- 7.7.2 In terms of transport requirements, those with learning disabilities have been identified as having the following needs by the Draft Provisional Local Transport Plan¹²⁹, namely: information that can be easily understood; special training for public transport staff; and training for those with learning disabilities on how to use public transport.
- 7.7.3 For the mobility impaired the needs are: level access to all areas; space to manoeuvre wheelchairs and electric scooters; and information on accessible routes. For the visually impaired the following requirements have been identified: improved signing adopted for the visually impaired; public service vehicles, car parks and walking routes free from danger for all people; and training for transport workers on how to assist the visually impaired.
- 7.7.4 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.
- 7.7.5 Torbay Council is currently installing software from the Government (the Accession Software Package) which should help identify which areas need improvements for accessibility. This software will be used to ensure physical accessibility by everyone to public transport. By 2007 Torbay Council aims to have swipe card systems, CCTV and, with the aid of GPRS (General Packet Radio Service), audio positioning and information announcements on all buses. Large screen information will also be available on Trunk routes¹³⁰.

7.8 Accessibility to housing:

- 7.8.1 Across the UK housing demand has been on the increase as a result of social changes and migration. Such trends have been particularly notable in the South West which experienced the highest growth in the number of dwellings between 1991 and 2003, more than any other region in England¹³¹. Despite this, if current house building rates continue there will be a shortfall of 13,000 dwellings by 2016 as targeted in Regional Planning guidance. Of concern is the noted lack of affordable housing available with only 10% of new homes providing social housing. With the exception of London, the South West is said to be the least accessible region for affordable housing¹³².
- 7.8.2 This situation is evident in Torbay in particular, where the need for affordable housing is linked to high levels of deprivation. Torbay suffers consistently high levels of unemployment and average earnings below regional and national

¹²⁹ Torbay Council, Torbay Draft Provisional Local Transport Plan (2006 - 2011)

¹³⁰ Transport Team, Personal Communication with Geoff Coleman, Senior Public Transport Co-ordinator, April 2005

¹³¹ South West Observatory www.swo.org.uk/state_of_the_south_west/housing.asp 'State of the South West' (accessed 31/01/05)

¹³² Ibid.

levels¹³³ linked to the predominance of low paid service sector jobs and poor alternative employment opportunities (see Economic Factors Chapter 4).

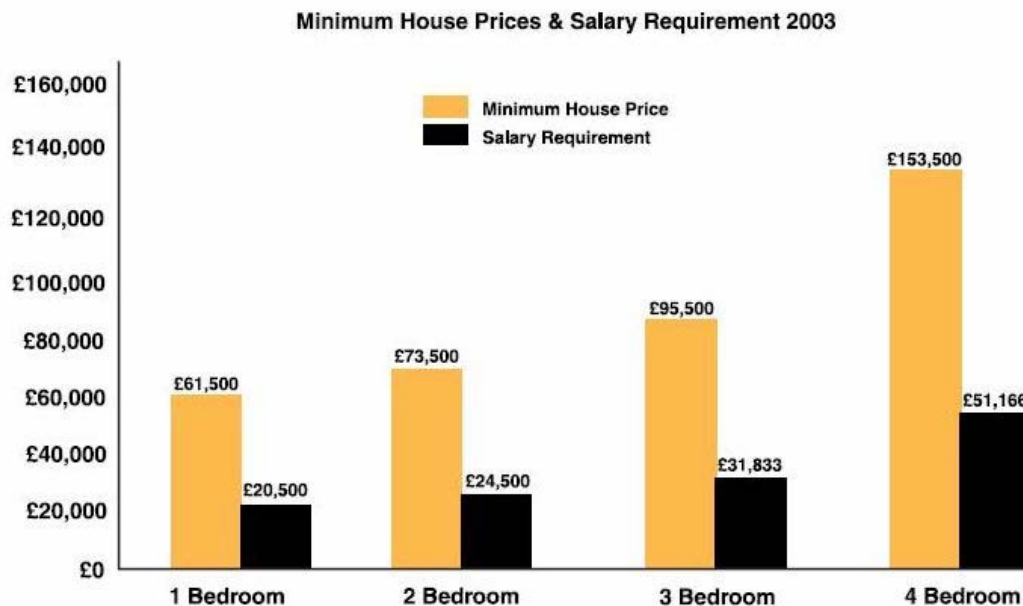
- 7.8.3 The lack of availability of affordable housing is reflected in the proportion of social rented housing which stands at present at 7.7% compared to a national average of 24% and regional average of 17%. The housing needs survey of 2003 indicates the need to provide 1816 units of affordable housing per year over the next five years. In the case of Torbay this is four times the predicted average annual completion rate of all dwellings in the monitor for his period. A certain number of new affordable units are gained through the planning system each year and over the last 7 years has averaged 88 units a year. However in addition to this a few units are provided through Registered Social Landlords who acquire properties for this purpose. The Local Plan Target is to provide an additional 130 units of affordable housing each year.
- 7.8.4 Housing affordability is a significant problem in Torbay with the average house price worth in almost six times the average salary. This is a reflection of a combination of high house price inflation (rising by 25% between 2001 to 2002) and low income rates in Torbay. The average household income level in Torbay is £18,060 compared to £21,000 regionally and £23,000 nationally. (Note in Chapter 4, Paragraph 4.2.1, the gross annual pay for all employees in Torbay for 2004 was £15,359. Although this is not the same as household income it does help illustrate the gap between income and house prices). Average earnings for those in social rented housing are £6,228 and in private rented £21,000. With house buyers requiring an income of 1/3 of the mortgage requirement it becomes obvious that those on an average household salary could not even afford a 1 bedroom property (priced at average £71,500 in 2003) let alone a family house of two bedrooms (price average £89,500 in 2003)¹³⁴ (see figure 7.4).
- 7.8.5 The Housing Needs survey of 2003¹³⁵ indicated that 3.1% of households in Torbay are in housing need (that is they cannot afford to buy or rent a property at prevailing market levels), compared with levels in inner London of 3.2% and the South West at 1.5%. Within this there is a marked need for several different types of affordable housing including sheltered housing for the elderly and starter units for young people.
- 7.8.6 There are also a number of groups in society who have special needs for housing. The 2003 Housing Needs Survey identified 8,335 households containing members with special needs (almost 14.1% of all households), nearly half of which is for the physically disabled and a quarter for the frail elderly¹³⁶.

¹³³ Torbay Housing Partnership (2004) ' The Future of Housing in Torbay - A Partnership Strategy 2003-2006'

¹³⁴ Ibid.

¹³⁵ The Housing needs Survey 2003 Fordham's Research on behalf of Torbay Council

¹³⁶ Torbay Council (Sept 2003)'The Problem of Affordable housing in Torbay: Supplementary Planning Guidance to the Torbay Local Plan (1995 – 2011)' Revised Deposit Version



Source: Fordham Research & Torbay Housing Service

Figure 7.4: Minimum House Prices and Salary Requirements 2003¹³⁷ compared to average Torbay income of £18,060

7.8.7 There is a significant problem with the provision of starter housing for young people. The 2004 Housing Land Monitor¹³⁸ indicates that the accessibility of low cost housing has decreased in line with house price inflation which has pushed up the average price of a property in Torbay by 26% per year between 1999-2004 compared to a national average of 19.2%. Only 1 bedroom flats are now considered to fall within the lower quartile of the housing market compared to 2002/2003, when 1bed and some 2 bed flats were included. In 2004 there were 98 units of low cost housing provided (19.8% of all completion) which is an improvement from 2002/2003 where 83 units were provided (17% of completions). However these figures are erratic as they are reliant upon the type of development coming forward in Torbay. The majority of small units coming through in 2003/2004 are conversion and subdivision of large properties which provide an important component of housing supply in Torbay.

7.8.8 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.

¹³⁷ Torbay Housing Partnership (2004) ‘ The Future of Housing in Torbay - A Partnership Strategy 2003-2006’

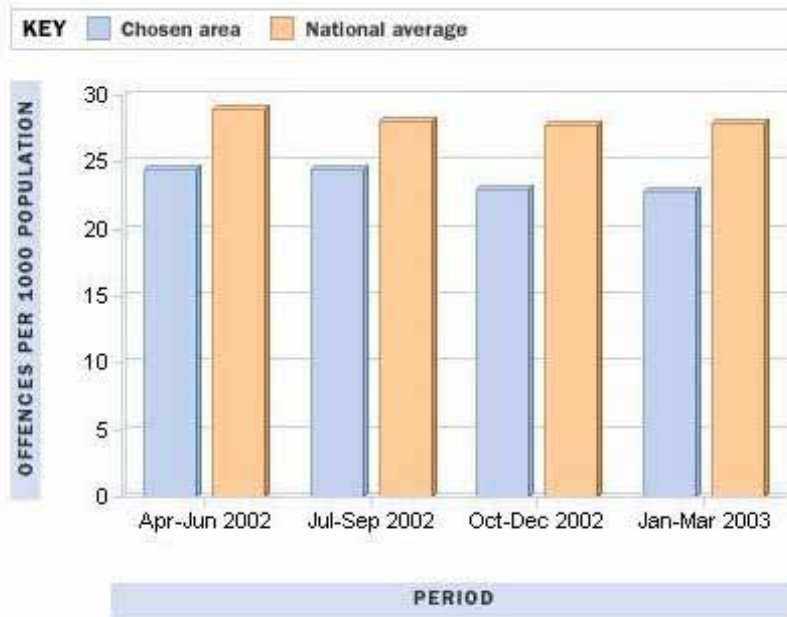
¹³⁸ Torbay Council (2004), ‘ Torbay Housing Land Monitor 2004, Strategic Planning Group

- 7.8.9 Key worker housing for hospital staff will be located in Torbay at Newton Road, where 68 units are to be provided by Signpost Homes. A further 70 units of key worker housing is to be allocated over the next 2 years.
- 7.8.10 Housing and land use have a complicated relationship with transport. Generally denser housing developments and central locations are considered more sustainable than out of town low density development, as they provide increased opportunities for walking, are better served by facilities and can be more easily served by public transport. These considerations however must be considered on the local scale where congestion and air quality issues may be a high priority, or where there is a lack of available space for housing development.

7.9 Crime

- 7.9.1 Home Office figures indicate that crime levels in the South West are low compared to national levels and appear to be generally declining see figure 7.5). This is supported by recent figures published in the British Crime Survey which notes that the South West had the second lowest rate of recorded crimes per 1,000 population in the English Region and Wales. The majority of crime types considered were at a lower rate than the national, including recorded violence against the person, robbery and burglary, theft and handling of stolen goods¹³⁹.
- 7.9.2 Actual crime rates have increased over the last 3 years in Torbay (see Figure 7.6). The increase from 2001/2002 to 2002/2003 is likely to be associated with introduction of a new crime recording system which has led to a dramatic increase in the reporting and recording of violent crime. However between 2002/2003 and 2003/2004 there has been a further increase in the number of crimes reported. Data collection of the next few years will indicate whether there is a long term trend of actual increases in crimes reported (rather than as a result of the recording method).

¹³⁹<http://www.crimestatistics.org.uk/tool/Default.asp?region=1&force=41&l1=0&l2=0&l3=0&sub=0&v=21> (Home Office 'Crime statistic for England and Wales' (accessed 1/02/05))



The population of South West Region is 4,934,283

Month	Total number of offences	Offences per 1000 population	Offences per 1000 England/Wales population
Apr-Jun 2002	120872	24.5	28.9
Jul-Sep 2002	120684	24.5	28.1
Oct-Dec 2002	113354	23.0	27.7
Jan-Mar 2003	112493	22.8	27.9

Figure 7.5: Comparison of crime levels in the South West with national figures¹⁴⁰

¹⁴⁰ <http://www.crimestatistics.org.uk/tool/Default.asp?region=1&force=41&l1=0&l2=0&l3=0&sub=0&v=21> (Home Office 'Crime statistic for England and Wales' (accessed 1/02/05))

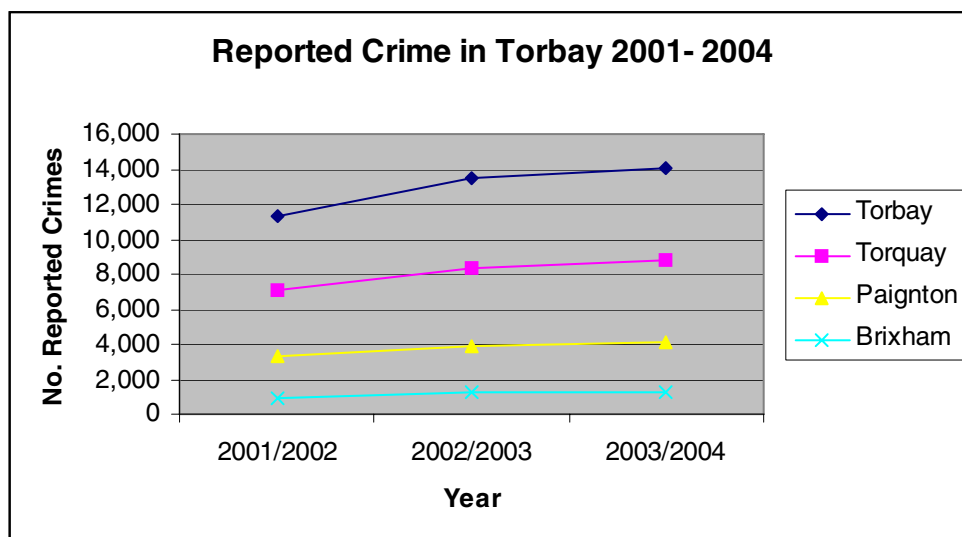


Figure 7.6: Reported crime in Torbay 2001/2004¹⁴¹

7.9.3 Although the levels of actual crime are relatively low, fear of crime is still a significant issue. A number of surveys and consultation exercises were carried out in 2004 and the fear of crime was identified as reasonably high with as many as 75% of respondents considering crime to be a very or fairly big problem in Torbay compared with other issues¹⁴². Particular issues which were highlighted as of concern include speeding traffic, people being drunk/rowdy in public places, safety of young children, rubbish lying around, vandalism and misuse of drugs. Views on safety after dark contrasted somewhat with 60% of respondents feeling safe in their own neighbourhood after dark as opposed to only 28% in Torbay as a whole. People's perception of crime is an important factor that should be addressed as this effects quality of life.

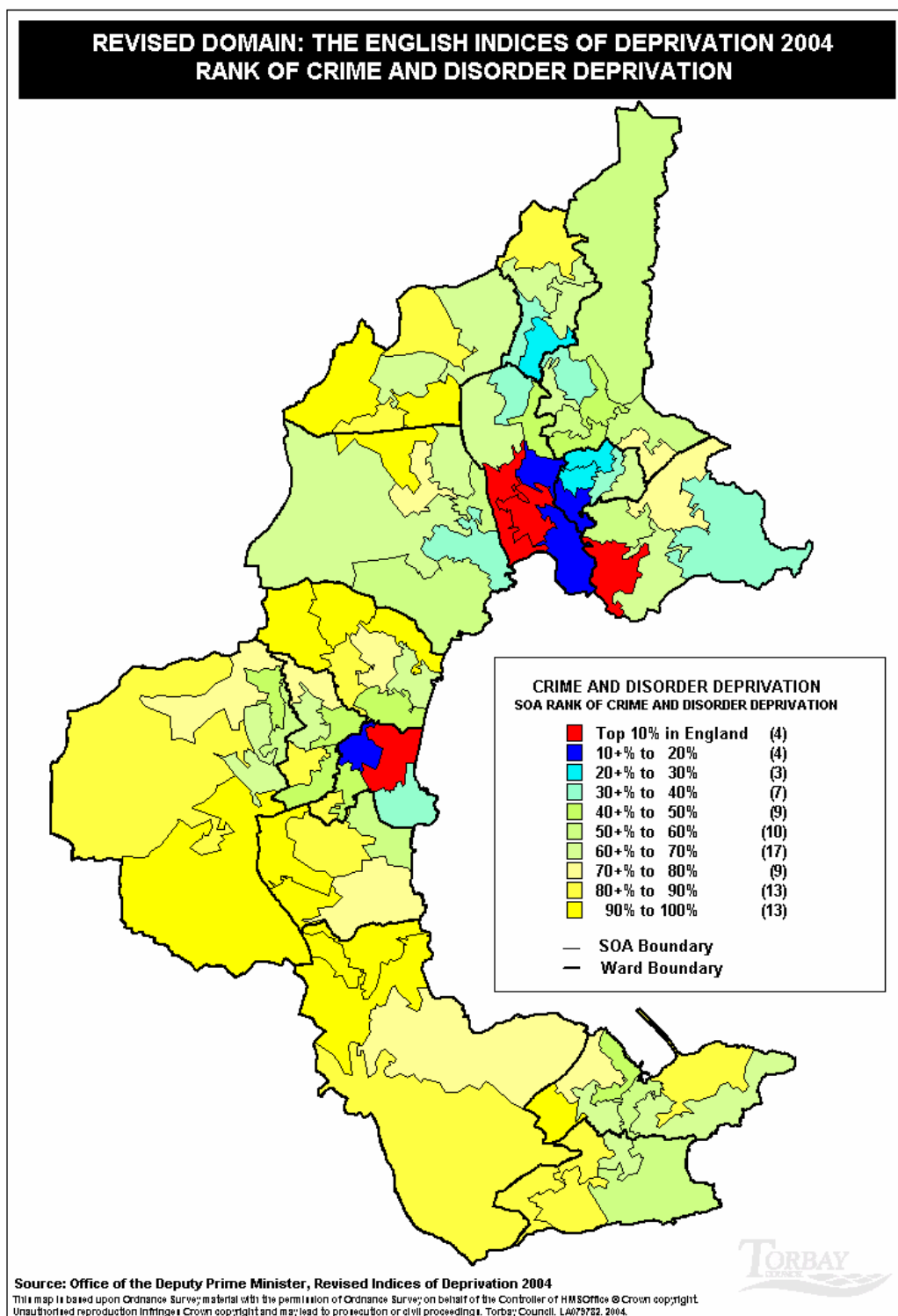
7.9.4 Indices of Deprivation for Crime and disorder are broken down into Super Output Areas and account for burglary, theft, criminal damage and violence. 8 SOAs in Torbay are in the top 20% most deprived SOAs in England for Crime and Disorder Deprivation of which 4 rank in the top 10% most deprived, totalling 6,100 (0.9% of the Torbay population). Significantly 20% the population in these areas are retired highlighting the need to prevent social exclusion of the elderly. Such wards include Tormohun, Ellacombe, St Marychurch, in and around Roundham and Hyde as well subsections of St Mary with Summerland, Wellswood and Cockington with Chelston. Over 12,000 of the Torbay population (9.4%) live in an area within the top 20% most deprived in England for Crime and Disorder Deprivation¹⁴³.

¹⁴¹ Safer Communities Partnership Torbay (2005) 'Draft Crime and disorder/ Misuse of Drugs Audit Summary'

¹⁴² Ibid.

¹⁴³ Research Team (2004 – Revised) 'The English Indices of Deprivation 2004 – Key findings for Torbay'

Figure 7.7: Index of deprivation 2004- Rank of crime and disorder for Torbay¹⁴⁴



7.9.5 One area of concern highlighted by the Licensing Policy 2004¹⁴⁵ is over the increasing levels of alcohol-related crime. Results of survey work carried out between October 1 2003 and 30 September 2004 identified Torquay Central

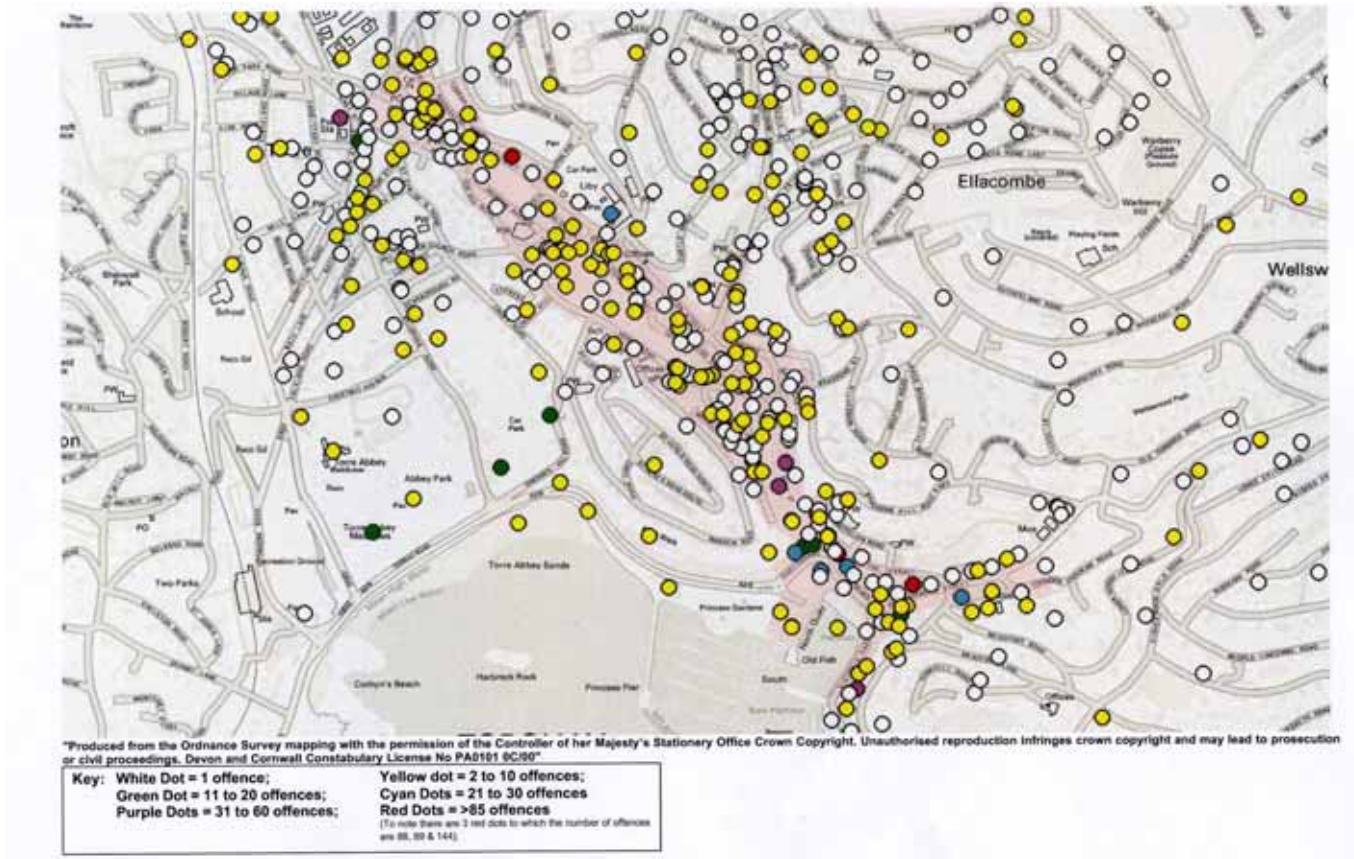
¹⁴⁴ Research Team (2004 – Revised) ‘The English Indices of Deprivation 2004 – Key findings for Torbay’.

¹⁴⁵ Torbay Council (2004) ‘Licensing Policy 2004,’ Environment Services Directorate

Area as a cause for concern. This is due to the increasing concentration of drinking establishments (pubs and clubs) in and around the harbour area. In response to this a special saturation policy has been applied to the area delineated in figure 7.8 where applications for additional licenses or variations to licences will usually be refused.

- 7.9.6 Although levels of crime in Torbay are below the national average generally, that does not prevent the fear of crime especially among the young and elderly. To improve walking, cycling and public transport use for the most vulnerable these fears need addressing. 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 7.8: Licensing Saturation Zone, Torquay¹⁴⁶



¹⁴⁶Torbay Council (2004) 'Licensing Policy 2004,' Environment Services Directorate

8 SEA Topic: Soil

8.1 Introduction

- 8.1.1 Transport infrastructure has two major effects on soil quality, namely its chemistry and structure. The chemistry of the soil is affected by the run off from roads which contains oil and diesel as well as particulates. Transport emissions also affect air quality which in turn is transmitted, via precipitation, to the soil.
- 8.1.2 Soil structure is affected in two ways. Firstly by the physical building of roads which completely destroy the natural soil profile. Secondly increased run off from roads leads to soil scouring, where the top soil is physically removed, and slope instability, whereby the stabilising vegetation can be removed by increased and faster run off and a slope becomes unstable.
- 8.1.3 Road construction also creates the problem of additional materials. As the soil is removed to build the road it must then be transported and handled as a waste product. The materials to build the road, stone being the largest constituent, are then transported to the site.

8.2 Soil Quality in Torbay

Best and Most Versatile Land

- 8.2.1 Much of the land area of Torbay is classed as Urban Land, the remainder falling within the high to moderate categories in terms of best and most versatile land (refer to figure 8.1). The areas of best and most versatile land are located at Barton, Cockington, Blagdon, Collaton St Mary and Churston¹⁴⁷.

8.3 Agricultural Land

- 8.3.1 In the UK 75% of the land area is used for agricultural activities¹⁴⁸. In the South West 80% of land is used for agriculture, which is the highest of any region in the UK¹⁴⁹.
- 8.3.2 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. Policy L7 from the Torbay Local Development Plan¹⁵⁰ states the best agricultural land, i.e. grades 1, 2, and 3a, will only have development upon them if there is an overriding need for development, which cannot be accommodated on lower grade land that does not have environmental value recognised by a statutory designation. Where a development is proposed and there is a choice between

¹⁴⁷ Defra (March 2005) 'Torbay Unitary Authority Likelihood of Best and Most Versatile Agricultural Land' Rural Development Service, Reading

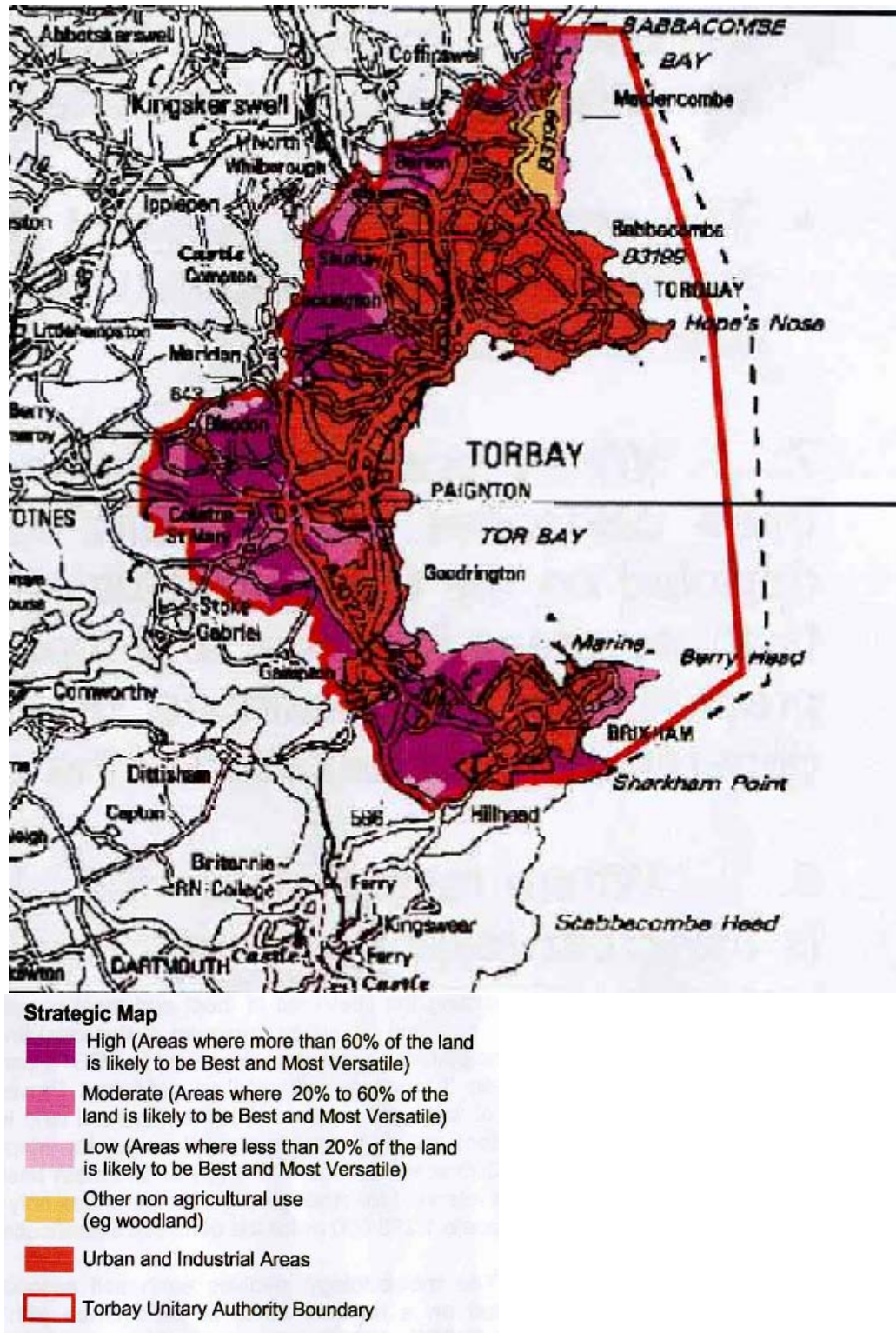
¹⁴⁸ Defra (2005) National Statistics 'The Environment in your Pocket 2005'

¹⁴⁹ <http://www.defra.gov.uk/erdp/docs/swchapter/section11/topography.htm> (accessed 22.09.05)

¹⁵⁰ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

sites of different grades, development should take place on the land of the lowest grade possible.

Figure 8.1: Major areas of best and most versatile land



OS maps, scale 1: 250000

8.3.3 The Agricultural Land Classification System classifies land into five grades with grade 3 sub divided in to 3a and 3b. PPG 7¹⁵¹ 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. Due to its urban character Agricultural Land is precious in Torbay. The best quality Land 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)¹⁵² (see figure 8.2).

8.4 Brownfield Land

8.4.1 Nationally the largest areas of brown field sites land (or previously developed land, PDL) are in the North West and South East Region which contain 18% and 17% of the national total respectively. Yorkshire and Humber and the East of England both contain 12% and the remaining regions 10% or less. The South West is in joint fifth place with 10% of the national total. These figures, however take no account of the differing size of the regions. Therefore if an area had a large percentage of brown field land then this may be either because it is a large area, or because it has a large proportion of brown field land. If incidence, the proportion of brown field land in each area, is examined then the South West ranks last with only 54% of the national average¹⁵³.

8.4.2 Both nationally and in the South West over half of brownfield land is in private ownership. Around two thirds of brownfield land requires treatment such as demolition, clearance or levelling before it can be brought back into use. This land requiring treatment, or derelict land, accounts for some 40% of the total brownfield stock nationally¹⁵⁴.

8.4.3 Employment, housing and mixed use are the most common proposed uses of brownfield land. In the South West 40% of brown field land has no proposed use at all compared with only 24% nationally¹⁵⁵.

8.4.5 There is little evidence that the unused brown field sites are being greened, only 1% to 4% of the total is proposed for open space. Considerable amounts of brown field land, however, have been brought back into use in recent years. Between 1998 and 2001/02 20% in England and 21% in the South West had been developed¹⁵⁶.

¹⁵¹ Planning Policy Guidance (PPG) 7 'The Countryside - Environmental Quality and Economic and Social Development'

¹⁵² Defra (March 2005) 'Provisional Agricultural Land Classification, Torbay unitary Authority' Rural Development Service, Reading

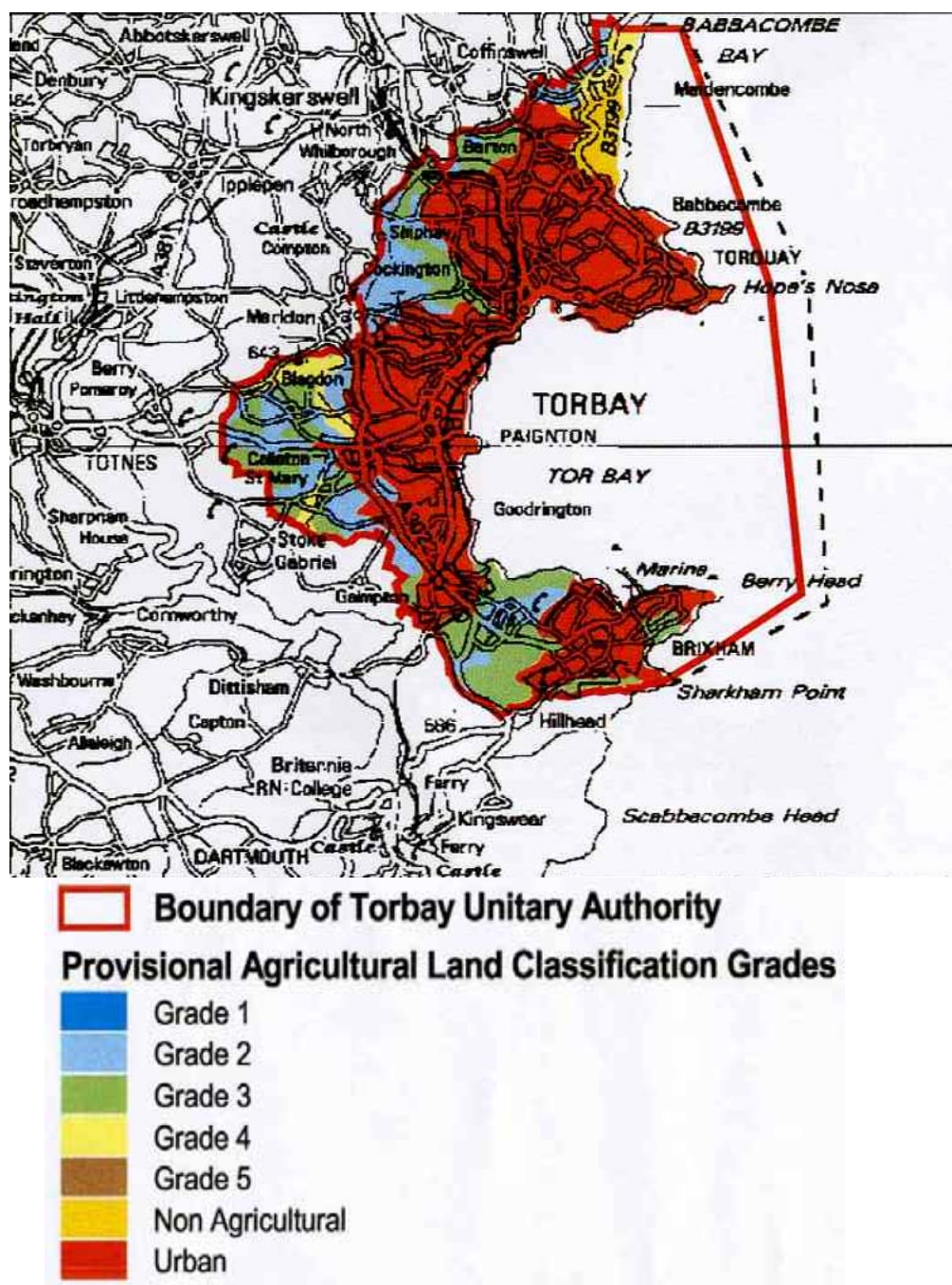
¹⁵³ National Land Use Database (NLUD) (Aug, 2003) 'NLUD Previously Developed Land 2002: Regional Summary South West and Torbay Borough (UA) Council', NLUD with Roger Tym and Partners (consultants)

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

Figure 8.2: Agricultural Land within Torbay ¹⁵⁷



OS Maps, scale 1: 250000

8.5 Brown Field Land in Torbay

8.5.1 The use of previously developed or brownfield land is a keystone of Planning Policy Guidance (PPG) 3¹⁵⁸. This Guidance gives a national target of 60% of new houses to be developed on brownfield sites by 2008. The effective use of

¹⁵⁷ Defra (March 2005) 'Provisional Agricultural Land Classification, Torbay unitary Authority' Rural Development Service, Reading

¹⁵⁸ Planning Policy guidance 3: Housing (March 2000) DETR, London Stationary Office

such land is a fundamental objective of the Torbay Local Plan (1995-2011)¹⁵⁹ and influences the Council's approach to planning for sustainability in urban areas.

8.5.2 The total amount of brownfield land in sites larger than 0.4 Ha in Torbay is 47.562 Ha (see figure 8.3). 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 ownership¹⁶⁰. Brownfield land in Torbay that has Allocated Permission or Planning Permission is almost 25% of the total (see figure 8.3).

Figure 8.3: Brown field Land in Torbay

Land Type	Area (ha)	%
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
Grand Total	47.562	

Source: National Land Use database (NLUD) (2003)¹⁶¹

8.5.3 In addition to this there are a number of smaller brownfield sites, much of which are not included in the above survey but are monitored by the Strategic Planning Group, which considers all planning applications granted permission within the financial year. This data provides an indication of the changing proportions of brownfield /greenfield ratios in Torbay (see figure 8.4below).

8.5.4 The yearly brownfield/greenfield ratio varies, with an annual average of 65% per annum since 1995, with the highest proportion in 1995/96 period at 81%, and lowest, 48%, in 1999/2000. 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 78% in 2003/2004¹⁶² (see figure 8.4). This can be attributed to two main factors:

- A decrease in number of completions on greenfield sites. The majority of greenfield development is derived from large sites, a significant proportion of which are provided by the two main developments of Great Parks and Barton. The number of completions on these sites since the last monitor period has dropped from 97 to 50 in Barton and 136 to 46 in Great Parks leading to an overall drop in the number of completions on greenfield sites.
- Increases in completions on brownfield sites. Although there has been little change in the number of redevelopments complete since last year,

¹⁵⁹ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

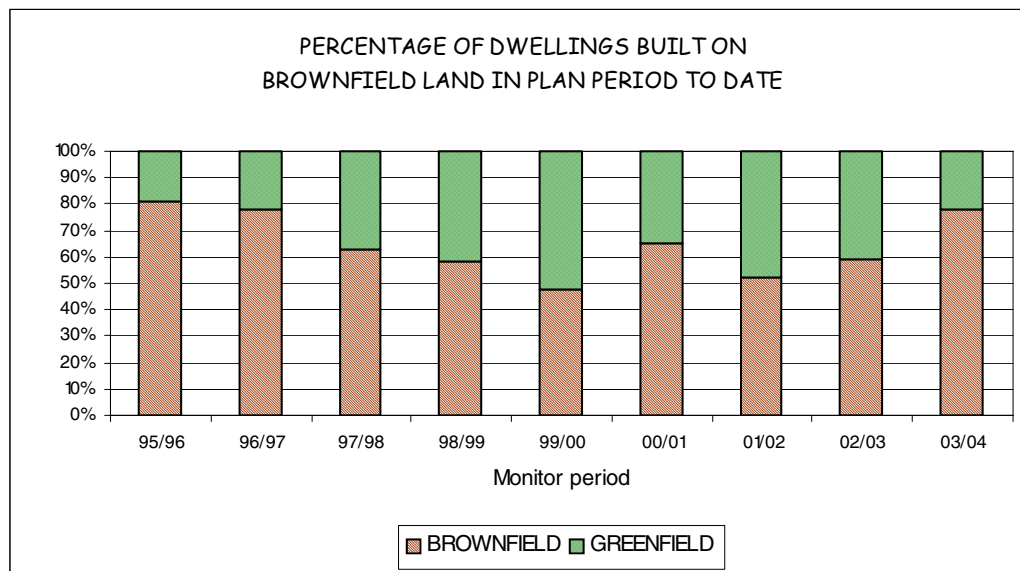
¹⁶⁰ National Land Use Database (NLUD) (Aug, 2003) 'NLUD Previously Developed Land 2002: Regional Summary South West and Torbay Borough (UA) Council', NLUD with Roger Tym and Partners (consultants)

¹⁶¹ 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)

¹⁶² Torbay Council (2004) 'Torbay housing Land Monitor 2003/2004'

completions derived from small sites (the majority of which are brownfield) and conversions, have both increased by approximately 50 units each since the last monitor period¹⁶³.

Figure 8.4 Percentage of Dwellings Built on Brownfield Land



Source: Torbay housing Land Monitor 2003/2004¹⁶⁴

8.6 Contaminated Land

8.6.1 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.

8.6.2 A GIS database of land quality and its past uses is also currently being established in line with the strategy¹⁶⁵. Contaminated sites in Torbay mostly consist of land formerly used for tipping, quarrying and pits, and some former railway and industrial land¹⁶⁶. Figure 8.5 shows the previous uses of brownfield sites in Torbay from the NLUD Survey (2003)¹⁶⁷. Depending on the proposed use of the land potentially contaminated sites can be broadly identified as land previously used for industrial and commercial, transport 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 figure 8.5).

¹⁶³ Torbay Council (2004) 'Torbay housing Land Monitor 2003/2004'

¹⁶⁴ Torbay Council (2004) 'Torbay housing Land Monitor 2003/2004'

¹⁶⁵ Torbay Council Environment Services Directorate (2001) 'Environmental Protection Act 1990 – Part IIa, Contaminated Land Strategy,' Torbay Council

¹⁶⁶ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

¹⁶⁷ 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 8.5 Previous Use of Brownfield Land in Torbay UA

Previous Use	Area (ha)	%
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%
Total Land potentially requiring remediation	11.85	29.41%

*figures in bold represent land potentially requiring remediation
Source: NLUD (2003)

8.7 Relevance to Local Transport Plan

- 8.7.1 The benefit of encouraging development on brownfield sites is that there may be existing infrastructure, including roads, rail and bus links, to support the development. Brownfield land development is more sustainable in terms of transport infrastructure than new greenfield sites, which may require additional road building programmes, with all the ensuing environmental disruption, and may not be so easily served by public transport modes. The identification of contaminated land, as well as being a public health issue, is important as remedial action can be taken where required and the land brought back into use as brownfield development, thus preserving greenfield sites.

9 SEA Topic: Waste

9.1 Introduction

- 9.1.1 Municipal waste for the purposes of this baseline report is considered by to be all waste collected by Torbay Council, or its agents and includes waste from households, municipal parks and gardens, beach cleansing, some commercial and industrial waste, materials resulting from the clearance of fly tipping as well as that taken to the Civic Amenity/Recycling Centre.
- 9.1.2 Torbay Local Plan policies are guided by national legislation such as the Waste Strategy 2000¹⁶⁸, PPS 23¹⁶⁹, and PPG10¹⁷⁰. Torbay policies also acknowledge Regional Planning Guidance such as the Municipal Waste Strategy for Devon (2003)¹⁷¹ and the Regional Waste Strategy for the South West (2004-2020)¹⁷². These documents in turn incorporate the European Union Landfill Directive¹⁷³. Torbay follows the waste hierarchy as set out in these guidances namely:
- 1) Reduction -Reduce the production of waste
 - 2) Re-use -Using items more than once
 - 3) Recover -Recycling, composting, energy recovery
 - 4) Disposal -No further benefit from the material.
- 9.1.3 PPS 23 and PPG 10 also advocate the Proximity Principle. It is this principle which is most applicable to the Local Transport Plan. 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.
- 9.1.4 Changes in waste legislation are pending with the introduction of Planning Policy Statement (PPS) 10 'Planning for Sustainable Waste Management'. The Government will expect a plan – led approach to sustainable waste management, replacing the former Best Practicable Environmental Option (BPEO) with Strategic Environmental Assessment (SEA) for Waste Management Strategies.
- 9.1.5 The government goal is to recover value from 45% of municipal waste by 2010/11. By 2015/16 the government expects that there will be a need to recover value from two thirds of household waste, half of which will be through recycling or composting¹⁷⁴.

9.2 Recycling in Devon

- 9.2.1 All municipal waste in Devon, both for recycling and disposal, is collected and transported by road. The waste is bulked up at sites within the county to reduce the environmental and economic costs. Currently, consideration is

¹⁶⁸ DETR (2000), 'Waste Strategy 2000' The Stationary Office

¹⁶⁹ Planning Policy Statement (PPS) 23: Planning and Pollution Control, ODPM (2004)

¹⁷⁰ Planning Policy Guidance (PPG) 10: Planning and Waste Management, DETR (Sept. 1999)

¹⁷¹ Municipal Waste Strategy for Devon (2003), Devon county Council (2003)

¹⁷² Regional Waste Strategy for the South West (2004-2020), South West Regional Assembly

¹⁷³ Landfill Directive (99/31/EC) (implemented July 2001)

¹⁷⁴ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

Appendix 1: Sea Baseline Survey, Waste

being given to the use of rail for the transport of waste, and refuse vehicles powered by liquid propane gas or non-fossil fuels¹⁷⁵.

- 9.2.2 Devon as a whole produced 3.3 million tonnes of controlled waste in 1997/98. This included 1.5 million tonnes of construction and demolition waste, 1.1 million tonnes of commercial and industrial waste and 0.5 million tonnes of municipal (including household) waste. Approximately 51% was sent to landfill sites, although this proportion rises to 76% if construction and demolition waste is taken out of the calculations as much of this is reused or recycled¹⁷⁶.

9.3 Torbay Statistics

- 9.3.1 During 2003/04, 86,475 tonnes of municipal waste were produced within Torbay. 62,504 tonnes of this was household waste, 8,812 of which were recycled and 4,122 composted. This produces Torbay's household recycling/composting rate of 20.7 %. The remaining 79.3% of household waste went to landfill without energy recovery, fuel manufacture or incineration. Total landfill, including Civic Amenity and collected non-household waste, was 55,944 tonnes¹⁷⁷.
- 9.3.2 Kerbside collection in Torbay currently serves 38,876 households. 2,285 tonnes of paper were collected in 2004/04, 645 tonnes of card, 225 tonnes of mixed cans, 88 tonnes of plastics and 21 tonnes of textiles. There are 63 recycling sites which together received 2032 tonnes of glass and 4122 tonnes of green waste (for composting) as well as other materials. In addition to recycling Torbay Council also encourages home composting. Currently 7.4% of households have home composting facilities, processing an estimated 196 tonnes¹⁷⁸.
- 9.3.3 During 2003/04 Torbay was ahead of the statutory target for household recycling rate prescribed by the Government (refer to figure 9.1). The 30% target set for 2005/06 is a challenge for Torbay, and in order to achieve this kerbside collections will need to be extended to more households and the operation of the Civic Amenity Centre will be reviewed and investment sought to improve the site. The network of recycling 'bring' sites will continue to be reviewed to make sure they cost effectively collect the maximum amount of material. Education and publicity campaigns will also continue to facilitate public participation¹⁷⁹.
- 9.3.4 The difficulties of meeting recycling targets are compounded by the trend for waste production which is up in the long term. This is the result of changing lifestyles producing more waste per head and a growing population.

¹⁷⁵ Municipal Waste Strategy for Devon (2003), Devon county Council (2003)

¹⁷⁶ Devon Structure Plan 2001 –2016, Devon County Council (Adopted 2004)

¹⁷⁷ Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

¹⁷⁸ Ibid.

¹⁷⁹ Ibid.

Figure 9.1: Recycling/Composting Rates of Household Waste

Authority	2001/02 Actual Recycling Rate	2003/04 Statutory Target Recycling Rate	2003/04 Actual Recycling Rate	2005/06 Statutory Target Recycling Rate
Devon County Council	20.5%	33%	26.7%	36%
Plymouth City Council	12%	16%	16%	24%
Torbay Council	20.84%	20%	20.7%	30%

Source: Devon Structure Plan 2001-2016¹⁸⁰

Note: Statutory Targets are set by Government in the Waste Strategy 2000.

9.4 The Proximity Principle in Torbay

9.4.1 Torbay complies with proximity principle by transporting its waste for disposal to the nearest land fill site at Heathfield, Newton Abbot, Devon. Recyclable material however is higher up the waste hierarchy and so, in order for it to be recycled; the waste is transported further afield. These distances are dependent upon economic rather than environmental factors.

9.4.2 Green waste and scrap metal are processed within the Torbay area, green waste is composted at Marldon and Scrap Metal goes to Paignton. Other recyclable materials are transported further for reprocessing. Cardboard is taken to Somerset for recycling, aluminium cans go to Warrington and paper goes to North Wales, Germany and China. Disused refrigerators go to South Wales for processing¹⁸¹ and steel to Llanelli. Textiles go to Bristol and Glass to Sheffield.

9.5 Minerals

9.5.1 Torbay's minerals policies accord with Government Guidance (MPG 1)¹⁸². As far as the Local Transport plan is concerned the most important policies include keeping the transport of minerals to an acceptable minimum and reducing the amount waste produced from mineral production.

9.5.2 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 area¹⁸³.

¹⁸⁰ Devon Structure Plan 2001 –2016, Devon County Council (Adopted 2004)

¹⁸¹ Torbay Council, Personal Communication, Civic Amenity Centre (March 2005)

¹⁸² Minerals Policy Guidance Note (MPG)1: General Considerations and the Development Plan System (1996) ODPM

¹⁸³ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

9.6 Summary

- 9.6.1 Torbay's waste policies are based on European, National and Regional legislation and guidance and so far the Council has been able to meet statutory recycling targets. As the targets become more challenging however, more investment will be required in the waste infrastructure if Torbay is to meet the targets set for 2010/11 and beyond. Reduction and reuse strategies may become more important as Torbay has a growing population who individually produce an increasing amount of waste. To recover energy from waste locally would require additional facilities which may not be compatible with Torbay's image as a major Tourist Centre.

10 SEA Topic: Water

10.1 Flooding:

10.1.1 Torbay has a number of watercourses covering 42km in length¹⁸⁴ of which the majority drain west towards the sea, south into the River Dart and one, south west into the Teign (see figure 10.1). Of these, all except one are classified as Ordinary Watercourses and, due to their size, have only small floodplains. There is only one main river, controlled by the Environment Agency in Torbay's boundary, a tributary of the Dart which runs west from Galampton¹⁸⁵. Currently this is Torbay's only river but in 2006 a further 7 water courses will be classed as rivers, namely the Higher Brixham, Clennon Valley, Churston, Yalberton, Victoria Stream, Occombe Valley and Aller Brook water courses (see figure 10.1)¹⁸⁶.

10.1.2 The main risks of flooding come from coastal and fluvial flooding as well as a proportion of incidents related to surface water runoff. The Environment Agency identifies a small number of potentially 'at risk' areas from fluvial and coastal flooding (see figure 10.1). The Environment Agency classifications include:

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 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.

10.1.3 In terms of watercourses 19.2km of the ordinary watercourses have been classified as critical by Torbay Council and the Environment Agency. This is as a result of their potential to put a large number of people and property at risk¹⁸⁷. 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. Key areas are outlined below.

Torquay:

- 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.

¹⁸⁴ Torbay Council (2004) ' Policy Statement on Flood and Coastal Defence'
[http://www.torbay.gov.uk/flooding_policy (accessed 10/02/2004)]

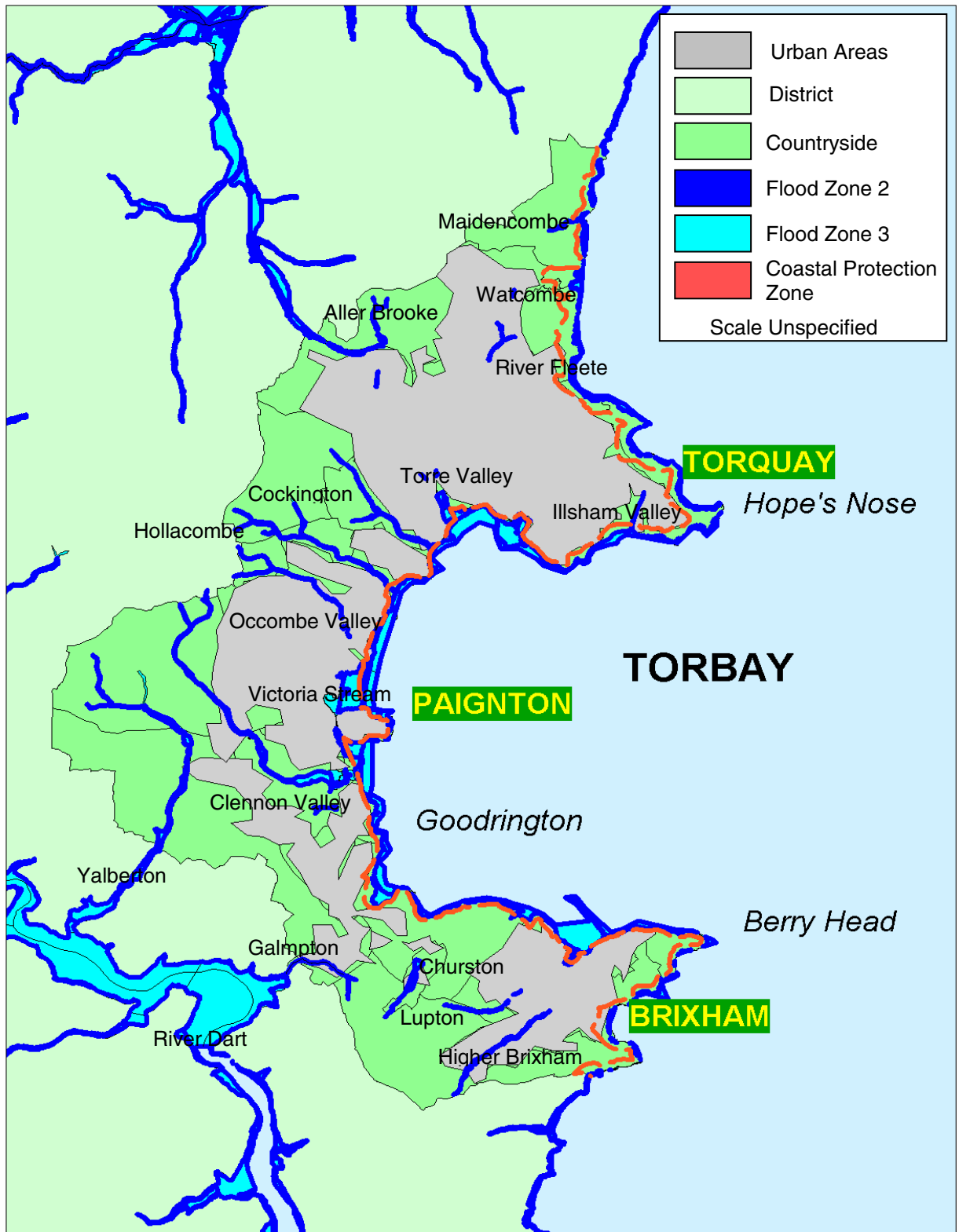
¹⁸⁵ Almost all other watercourses, including streams, ditches (whether dry or not), ponds, culverts, drains, pipes and any other passage through which water may flow, are defined as "**ordinary watercourses**." In the case of ordinary watercourses, the District Council is the Operating Authority. (CHECK REF – Website – check EA definition)

¹⁸⁶ Torbay Council (May 2005) Personal Communication, Highways and Engineering

¹⁸⁷ Torbay Council (2004) ' Policy Statement on Flood and Coastal Defence'
[http://www.torbay.gov.uk/flooding_policy (accessed 10/02/2004)]

Figure 10.1 Major Waterways and Flood Defences in Torbay

Source: OS Maps



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Paignton:

- 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 bid to DEFRA 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.
- Flood risk maps indicate a fluvial flood zone extending from Clennon hill to Goodrington Sands (flood zones 2 and 3). There is also a risk of coastal flooding in and around Goodrington Park and car park. The later is in part protected by Goodrington North Seawall, however there is a recognised need for remedial works to this wall which is planned for 2006/7 subject to DEFRA funding.
- A small area to the north of Broadsands including parkland and car parking areas.
- Land adjacent to the watercourse which flows through Collaton St Mary and Yalberton Industrial Estate could effect 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 has been secured from DEFRA for work to this area to improve culverts and upgrade pipes.

10.1.4 A number of remedial works have been identified as necessary for highways to alleviate future flood risk. These are outlined below in figure 10.2:

Highways Flooding Problems - Outstanding Schemes			
Location	Problem	Solution	Comments
Occombe Valley Road	Culverted watercourse in danger of collapse	Reconstruct section of culvert	Planned for 2004/05
Brixham Road at Windy Corner	Flooding on highway	Install new soakaway	Planned for 2004/05
Cockington Lane O/s Rose Cottage	External flooding to property	Install new highway drain	Planned for 2004/05
Dartmouth Road O/s Gliddon Ford	Flooding on highway	Install new soakaway	Planned for 2004/05
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 Manor Road, Brixham	Flooding on highway	Install new highway drain	
Centry Road	Flooding on highway	Install new highway drain	
Tor Park Road	Flooding on highway	Clean culvert and assess capacity	
Long Road/Stoke Road	Flooding on highway	Install new highway drain	
Browns Bridge Rd/Barton Hill Way	Flooding on highway	Install new highway drain	
Old Mill Road/Cockington Lane	Flooding on highway	Modify existing screen arrangement	

Figure 10.2: Outstanding schemes required to address highway flooding problems¹⁸⁸

10.1.5 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.

10.1.6 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. Surface water runoff is particularly relevant to the Transport Plan, as it is important to note that the greater the surface area of the impervious road network, the greater the volume of runoff.

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

10.2 Water Quality:

Marine Waters

¹⁸⁸ Torbay Council ‘Review of Flooding Within Torbay’ Report OSB/17/04 to the Executive 11.01.05. Adopted by the Overview and Scrutiny Board December 2004.

10.2.1 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.

10.2.3 The quality of marine water in Torbay has been consistently good over previous years with only 4 out of a total of 217 Environment Agency samples tested for the bathing waters Directive over the period 1990 to 2004 being of poor quality. The most recent of these being in 1997 since when all samples have proved to be of good or excellent quality¹⁸⁹.

Inland Waters

10.2.4 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 over the years, failing to meet water quality targets between 1997- 1999. This is due to its proximity to the Barton Tip landfill site. Compliance with Water quality in the minor tributaries in the remainder of Torbay is not measured¹⁹⁰.

Beaches

10.2.5 In 2004 the beaches in Torbay fell within the following EA Classifications:

- 7 beaches of excellent quality (Maidencombe, Watcombe, Oddicombe, Babbacombe, Meadfoot, Beacon Cove, and Shoalstone)
- 7 of good quality (Torre Abbey, Hollicombe, Preston Sands, Paignton Sands, Goodrington, Broadsands and St Mary's Bay)
- 3 Blue Flags beaches are located at Oddicombe, Meadfoot and Breakwater (see figure 10.3).

10.2.6 In 2003 all 15 beaches sampled passed the Imperative bathing water standard, while 8 did not pass the Guideline Standard (53%). In 2004 14 beaches passed the Imperative standard and one did not (7%), 8 did not pass the Guideline Standard (53%)¹⁹¹.

¹⁸⁹ Environment Agency website www.environment-agency.gov.uk 'What's in your Backyard' (Accessed 10.02.05)

¹⁹⁰ Ibid.

¹⁹¹ Torbay Council, personal communication (email, 03.03.05), Steve Cox, Principal Environmental Health Officer

Figure 10.3: Blue Flag Beaches in Torbay



Source: English Riviera Tourist Board 2004¹⁹²

¹⁹² English Riviera Tourist Board (2004), 'The English Riviera 05: Making a Lasting Impression,' English Riviera Tourist Board

10.3 Sewage

10.3.1 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.

10.3.2 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 Ilisham 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 wildlife¹⁹³.

10.4 Relevance to the Local Transport Plan

10.4.1 Flooding occurs near to Torre Abbey and Torquay Stations, making access to these facilities difficult during a flood event. Some major roads, for example Kings Drive are also prone to flooding which causes traffic disruption. The combined effect being that during a flood event access into and out of Torbay and within the area is severely restricted.

10.4.2 In turn, the insensitive location of new transport infrastructure, such as a road or bus station will increase runoff and may increase vulnerability to flooding if mitigation measures are not put in place.

¹⁹³ South West Water website www.southwestwater.co.uk 'Torbay gets the Clean Sweep treatment (accessed 11.03.05)