

9 Waste

9.1 Introduction

- 9.1.1 Torbay Council has a statutory duty to collect from over 60,000 properties. Twin bin Kerbside collection in Torbay currently serves 39,453 premises. In 2004/05 2,285 tonnes of paper were collected, 645 tonnes of card, 225 tonnes of mixed cans, 88 tonnes of plastics and 21 tonnes of textiles. There are 65 recycling sites which together received 2032 tonnes of glass and paper as well as other materials. In addition to recycling Torbay Council also encourages home composting. Currently approximately 7.4% of households have home composting facilities, processing an estimated 196 tonnes¹.
- 9.1.2 **Municipal Waste** for the purposes of the WMS is 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 – tipped waste as well as that taken to the Civic Amenity Centre.
- 9.1.3 **Household Waste** is that arising from dwellings such as houses, caravans, houseboats, campsites, prisons, schools and colleges.
- 9.1.4 **Commercial Waste** comes from premises used for trade or businesses, sport, recreation and entertainment.
- 9.1.5 **Industrial Waste** is from factories or industrial process. It includes wastes from mines, quarries and agriculture.
- 9.1.6 **Hazardous Wastes** are dangerous for a variety of reasons including toxicity.
- 9.1.7 **Clinical Waste** comes from institutions such as hospitals, nursing homes and dental surgeries but can also include waste from the household.

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 being given to the use of rail for the transport of waste, and refuse vehicles powered by liquid propane gas or non-fossil fuels.
- 9.2.2 In 2003/04 483,979 tonnes of Municipal Solid Waste (MSW) were generated in Devon. These figures exclude Plymouth as the city deals with its own MSW within its own boundaries. Of this MSW, 445,261 tonnes were classified as household waste².

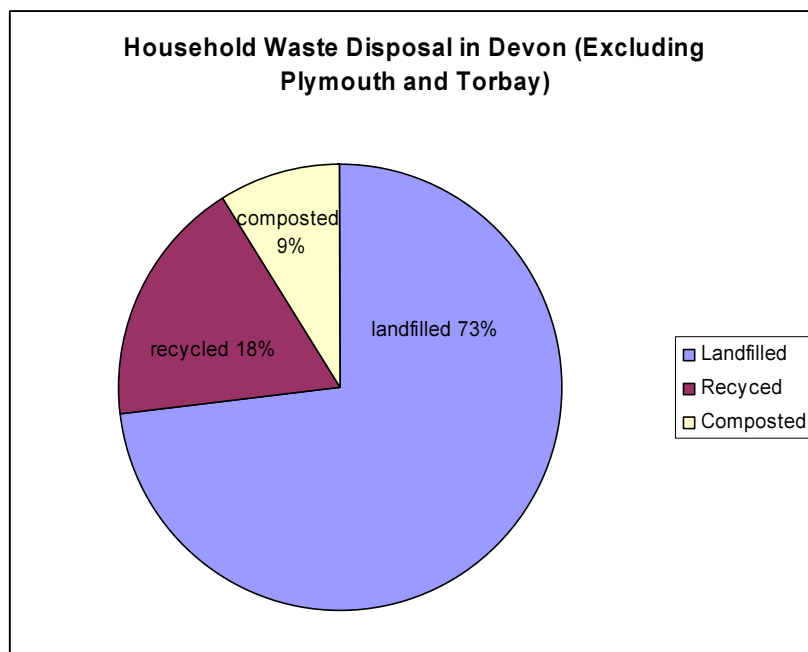
¹ Municipal Waste Management Strategy for Torbay 2005 – 2025 Consultation Draft May 2005, Environmental Policy

² Municipal Waste Strategy for Devon (2003), Devon county Council (2003)

9.3 Household Waste in Devon

9.3.1 Excluding Plymouth and Torbay (who are responsible for disposing of their own household waste) the figures for household waste in Devon show that 73% (353,305 tonnes) was landfilled, 18% (87,116 tonnes) recycled and 9% (43,558 tonnes) composted³ (see figure 9.1).

Figure 9.1



9.3.2 Between 1990/2000 and 2002/03 annual growth in household waste was approximately 3%. Not all of this growth can be accounted for by population growth. There has also been a growth in the use of convenience products and in garden and household makeovers. In 2002/03 1.2 tonnes of household waste were produced which equates to 0.55 tonnes per head.

9.3.3 There was a fall, however, of 4% in the quantity of household waste generated in Devon between 2002/03 and 2003/04. The Devon Municipal Waste Management Strategy⁴ suggests this is due to a gradual change in public attitudes, the 'Don't let Devon go to Waste' campaign and the new recycling centre contract.

9.4 Municipal Solid waste in Devon

9.4.1 Municipal solid waste production in Devon is expected to rise in the future, despite the downturn above. The forecast figures are included in the table below (figure 9.2)⁵.

³ Devon County Waste Local Plan July 2005 (Re - Deposit Version) Devon County Council

⁴ Devon County Council, Municipal Waste Management Strategy for Devon March 1995

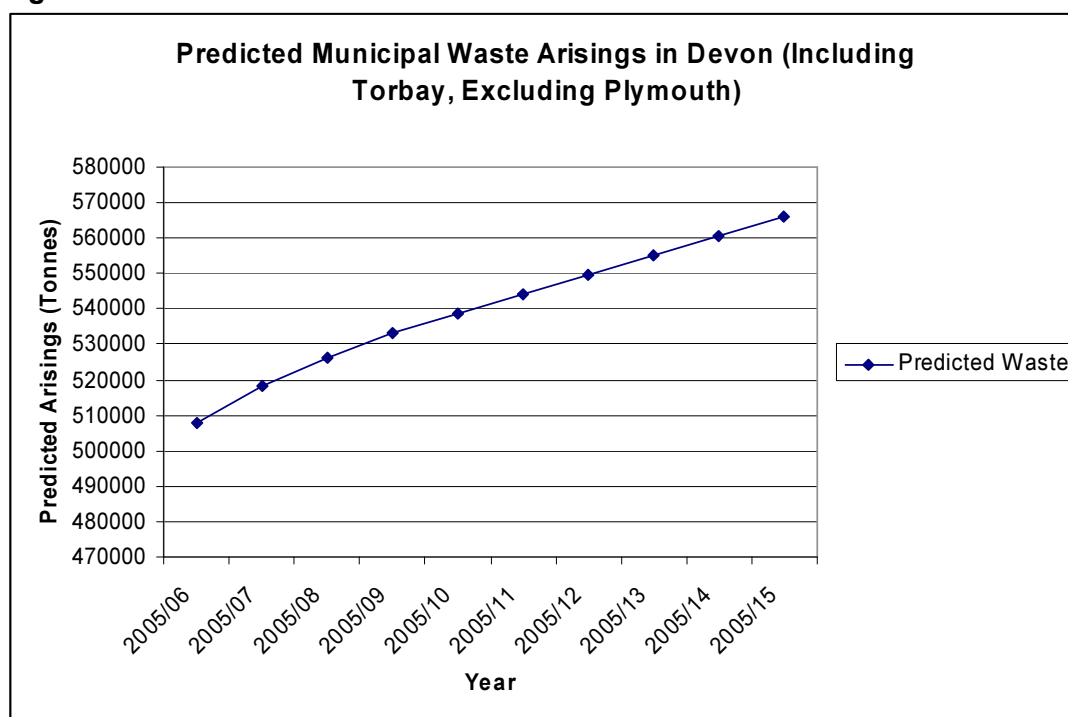
⁵ Devon County Waste Local Plan July 2005 (Re - Deposit Version) Devon County Council

Figure 9.2 Predicted Municipal Waste Growth Rates for Devon

Financial Year	Waste Growth Rate
2003/04 to 2004/05	2.6%
2004/05 to 2005/06	2.3%
2005/06 to 2006/07	2%
2006/07 to 2007/08	1.6%
2007/08 to 2008/09	1.3%
2008/09 onwards	1%

Applying these growth rates to the actual MSW arisings from 2003/04 (484,979 tonnes) the rise in MSW production can be best viewed as a graph (see figure 9.3) constructed from the table directly beneath.

Figure 9.3



Predicted Municipal Waste Arisings in Devon

Year	Predicted Waste
2005/06	507983
2006/07	518143
2007/08	526433
2008/09	533277
2009/10	538610
2010/11	543996
2011/12	549436
2012/13	554930
2013/14	560479
2014/15	566084
2015/16	571745

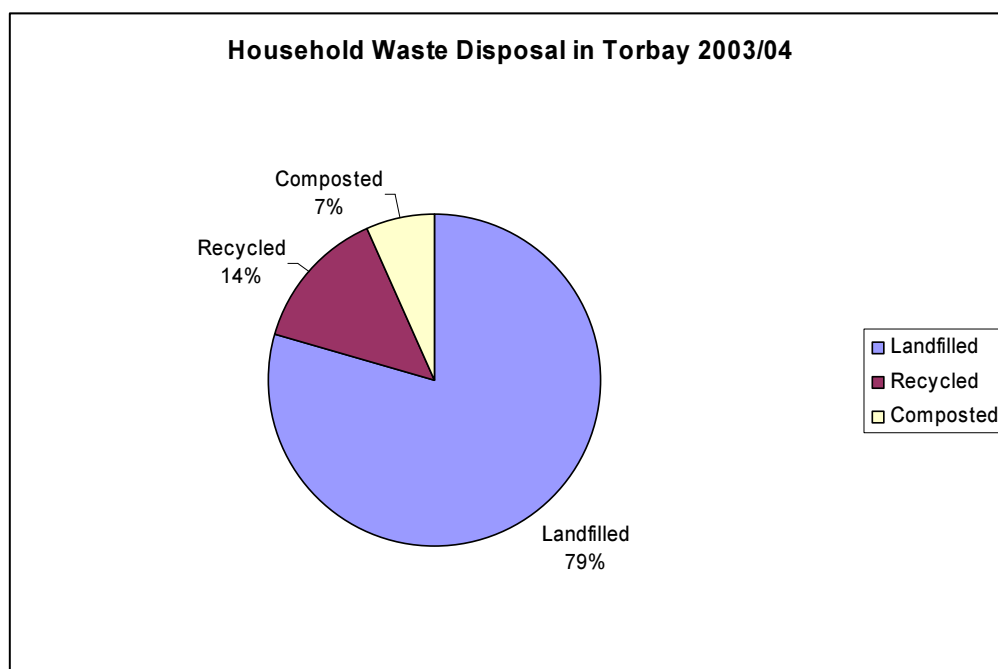
9.5 Torbay Statistics

9.5.1 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 incineration⁶ (see figure 9.4).

9.6 Household Waste in Torbay

9.6.1 The figure below (9.4) shows that Torbay landfills 6% more of its household waste than Devon (excluding Plymouth). This figure however (79%) is closer to the National median value of 79.9%.

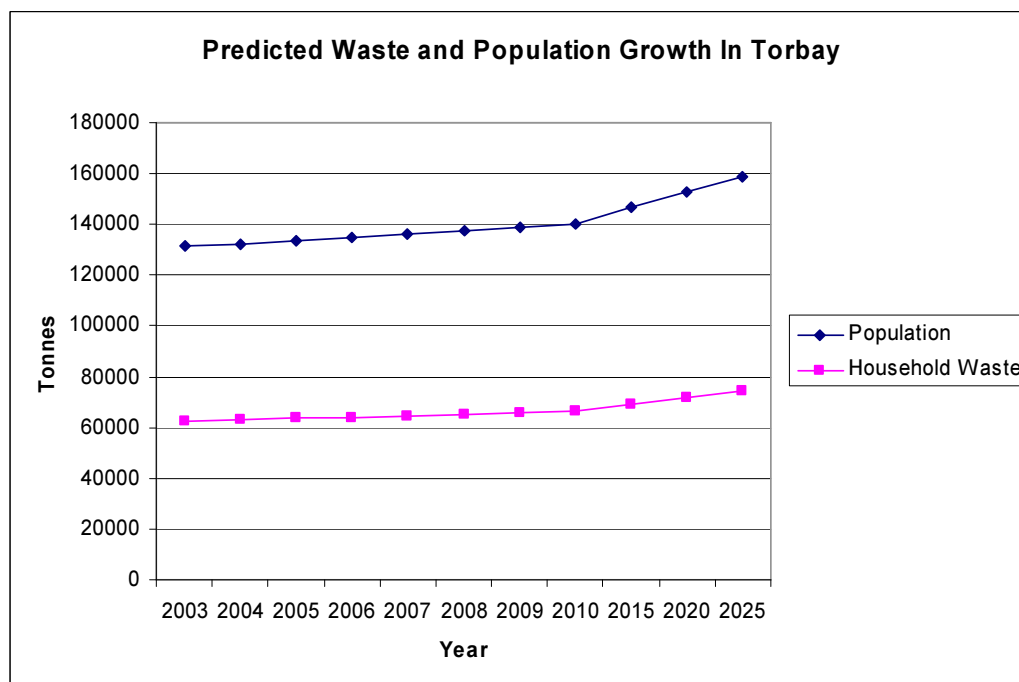
Figure 9.4



9.6.2 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. The comparable trends are demonstrated in Figure 9.5 below (constructed from the figures immediately beneath).

⁶Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

Figure 9.5



Year	Population	Household Waste Tonnage
2003	131300	62,504
2004	132500	63,017
2005	133800	63,573
2006	135000	64,086
2007	136300	64,642
2008	137600	65,197
2009	138800	65,710
2010	140100	66,266
2015	146500	69,002
2020	152800	71,695
2025	158700	74,218

9.6.3 During 2003/04 Torbay was ahead of the statutory target for household recycling prescribed by the Government in the Waste Strategy 2000⁷ (refer to figure 9.6). 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 through bag and box schemes.⁸

⁷ DETR (2000), 'Waste Strategy 2000' The Stationery Office

⁸ Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

Figure 9.6: 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 2001-2016⁹

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

9.6.4 Best Value Performance Indicators Figures for 2003/04 show that compared in relation to other Unitary Authorities the Torbay is in the top quartile for the percentage of household waste recycled or composted, and above average when compared nationally. However Torbay is in the bottom quartile for the percentage of residents served by kerbside recycling, when compared both to Unitary Authorities and Nationally¹⁰

Kerbside Collection

9.6.5 A brief description of Torbay's Statistics is outlined in figure 9.7a. From these statistics the chart below (figure 9.7b) demonstrates that 64% of premises have a kerbside recycling service.

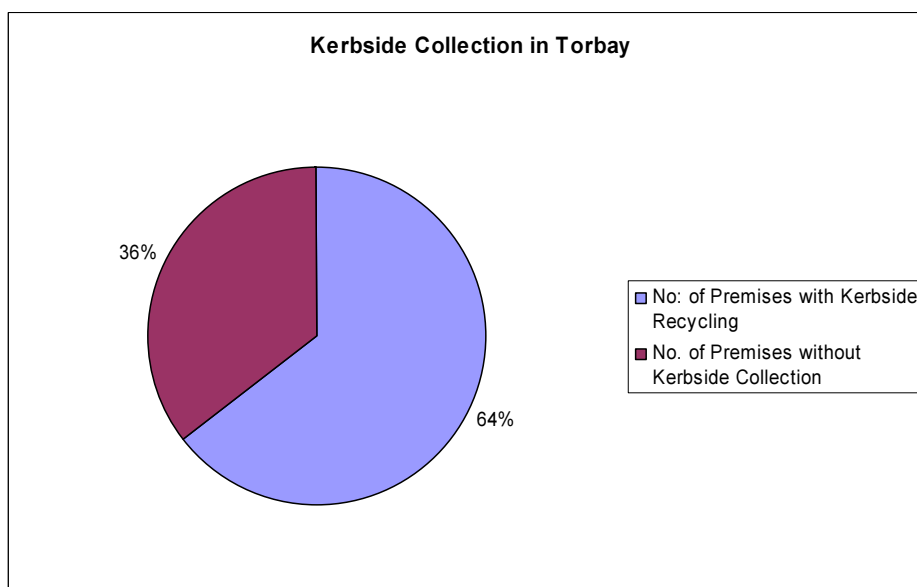
Figure 9.7a Torbay's Statistics for Kerbside Collection

Description	Value
Torbay's Population	130,900
Area in Hectares	6,300
No: of Premises	61,312
No: of Premises with Kerbside Recycling	39,453
No. of Premises without Kerbside Recycling	21,859

⁹ Devon Structure Plan 2001 –2016, Devon County Council (Adopted 2004)

¹⁰ Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

Figure 9.7b



Materials collected

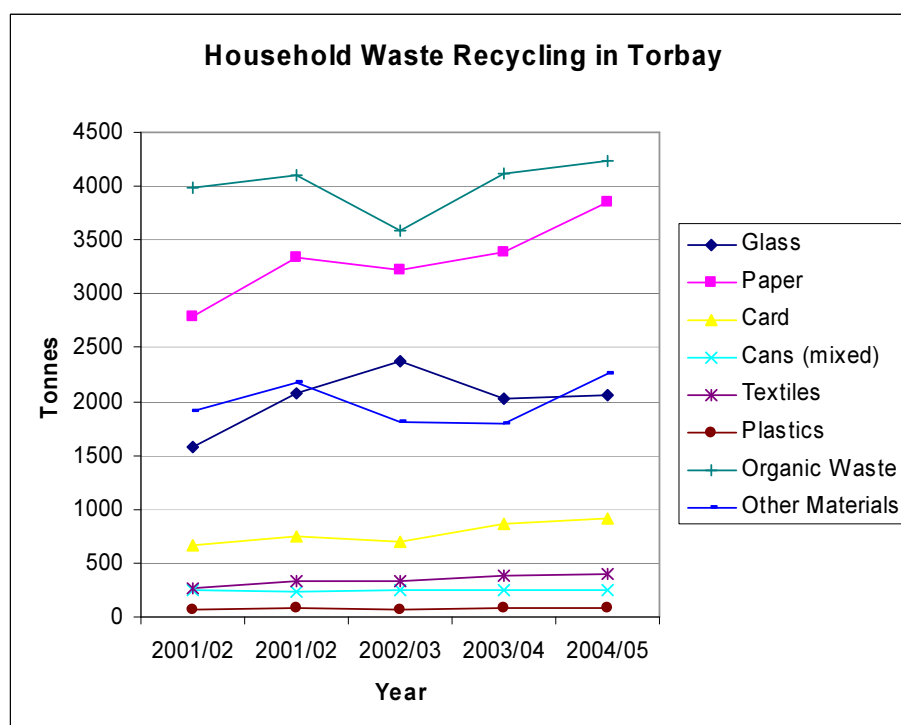
9.6.6 An overall summary of the types of household waste material recycled in Torbay is supplied in figure 9.8. The four rows of figures at the bottom of the table also show how Torbay's recycling rate is calculated

Figure 9.8

Material	Collection Method	2000/01	2001/02	2002/03	2003/04	2004/05
GLASS	Sub. Total	1573	2073	2370	2032	2053
PAPER	Sub. Total	2787	3343	3215	3390	3853
CARD	Sub Total	661	748	699	867	920
CANS (mixed)	Sub Total	245	230	245	257	254
TEXTILES	Sub. Total	272	337	340	390	396
PLASTICS	Sub. Total	70	85	74	88	87
ORGANIC WASTE	Sub. Total	3977	4110	3583	4122	4237
OTHER MATERIALS	Sub. Total	1904	2169	1816	1789	2255
TOTAL HOUSEHOLD WASTES RECYCLED		11489	13094	12340	12934	14055
TOTAL NON RECYCLED HOUSEHOLD WASTE		50779	49735	49034	49570	50081
TOTAL HOUSEHOLD WASTE ARISING		62268	62829	61374	62504	64136
HOUSEHOLD WASTE RECYCLED/COMPOSTED RATE		18.45%	20.84%	20.11%	20.69%	21.91%

9.6.7 From the above table the key trends are best displayed as a graph in figure 9.9. This shows that for all materials collected, the recycling trend is up since 2001/02. Glass recycling, however, has declined by 317 tonnes between 2002/03 and 2004/05.

Figure 9.9



9.7 Municipal Waste

9.7.1 Figure 9.10 gives an historical breakdown of the constituents of municipal solid waste in Torbay up to 2003/04. It demonstrates the quantity and types of material that are picked up by kerbside collection and the materials recycled through recycling centres and banks to which people bring their waste¹¹.

Figure 9.10 Municipal Waste Torbay

Description	1998/99	1999/00	2000/01	2001/02	2002/03	2003/2004
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
Non-Recycled						
Collection round household waste (bin)	33727	33542	35434	34665	36267	37,150
Other collected household waste	2331	1995	2159	1996	2606	2,465
Civic amenity waste	16453	16724	13206	12089	10185	9,998
Collected non-household waste	5971	7170	5572	9472	6551	6331
Total (A)	58,482	59,431	56,371	58,222	55,609	56,379
Kerbside Recyclables						
Paper	1694	2335	2063	2352	2368	2,285
Card	358	515	472	576	506	645
Mixed Cans	222	251	243	193	213	257

¹¹Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

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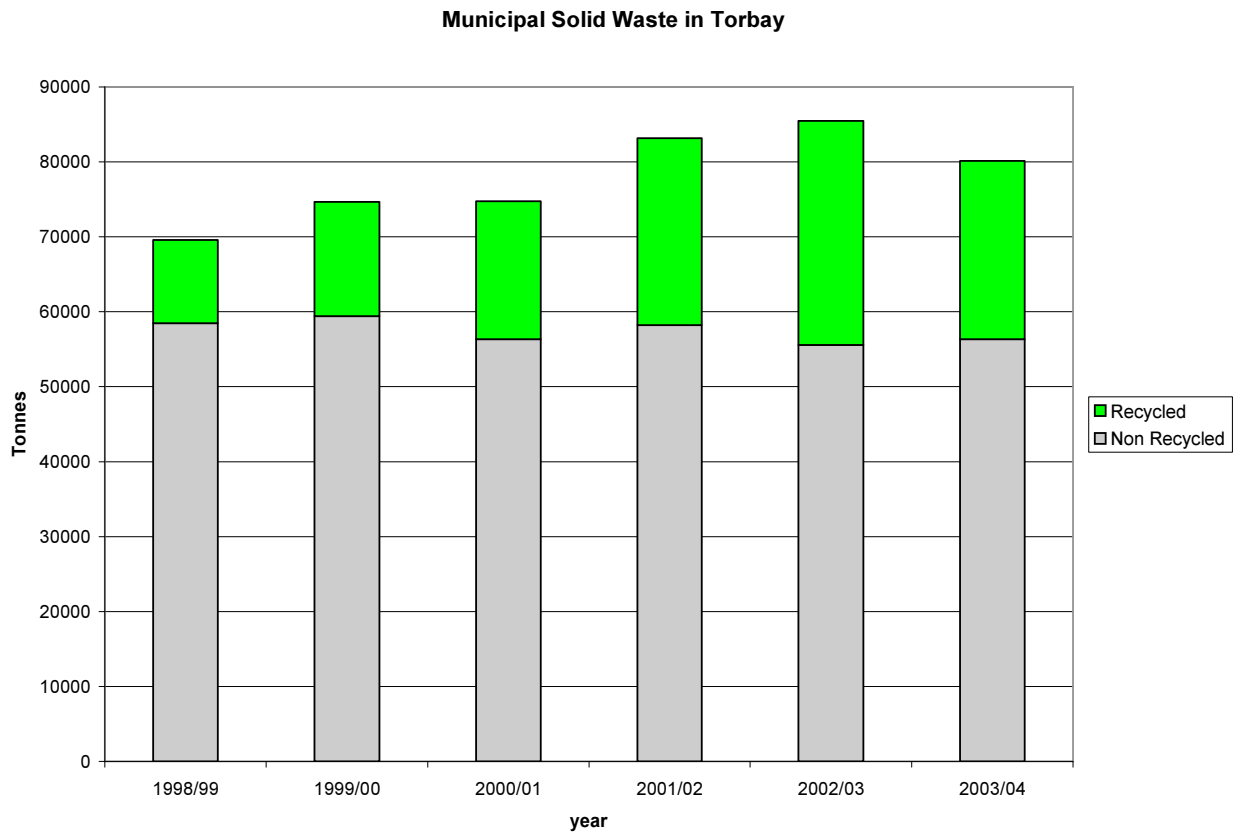
Textiles	5	12	2	0	4	21
Plastics	47	30	70	85	74	88
Total (B)	2,326	3,143	2,850	3,206	3,165	3,296
Bring (drop off) Recycling /Composting						
Glass - Mixed	1025	1308	1573	2073	2371	2,032
Paper Banks	831	868	681	742	711	936
Paper Third Parties	202	234	42	249	136	168
Paper Commercial	340	4	30	56	20	72
Paper (Yellow Pages)	0	44	37	0	47	23
Household Card	50	143	189	171	193	222
Card Commercial	1006	1237	1690	1703	1607	1,536
Scrap metal & white goods - Electrical goods	506	1295	1346	1321	949	847
Commercial Mixed Metals	0	0	401	21	277	331
Textile Banks	97	93	142	133	130	144
Household Textiles	3	15	10	15	16	7
Third Parties Textiles	142	108	117	189	187	218
Oil (1000 litres = 0.9 tonnes)	6	22	18	22	21	10
Household Waste for composting	2309	3137	3977	4110	3583	4,122
Commercial Green Composted	373	405	405	341	338	402
Seaweed Composted	1200	1000	1200	1176	1475	1,097
Household Wood (not for composting)	190	465	561	810	625	704
Commercial Wood (not for composting)	0	264	663	759	888	805
Rubble @ Claylands				4629	11451	4,999
Rubble/DIY	530	1466	2453	3215	1710	1,794
Total (C)	8,810	12,108	15,535	21,735	26,735	20,469
Total MSW 2003/04 (A+B+C)	69,618	74,682	74,756	83,163	85,509	80,144

9.7.2 From the above table the following trends can be demonstrated:

- A Decline in non – recycled waste
- An increase in kerbside collectables
- A large increase in Bring (drop off) recycling, due largely to the addition of rubble taken to the Claylands site
- There has been a reduction of 6% in MSW in Torbay between 2002/03 and 2003/04. This could indicate a slowing down of MSW generation, although the majority of this decrease is due to less rubble being taken into the Claylands site during this period.

The overall effect is a general increase in both the total of MSW and in the proportion recycled (see figure 9.11 below).

Figure 9.11 Municipal solid Waste in Torbay



9.7.3 The Location of the Torbay Transfer station and all recycling banks are shown in figure 9.12. These sites however are under constant review for their effectiveness and value for money. The number of sites and their positions therefore fluctuates. The most important point to note is that the facilities are well dispersed throughout Torquay, Brixham and Paignton. This improves the accessibility to recycling facilities. Access to Torbay Transfer Station can be difficult at peak times due to its popularity.

Appendix C: Waste



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Figure 9.12 Recycling Facilities in Torbay

9.8 Landfill Targets for Torbay

9.8.1 The maximum tonnage of municipal waste that Torbay can dispose of to landfill is set out under the under the Landfill Allowance Trading scheme (LATS). Figure 9.13 illustrates the estimated amount of MSW up to 2019/20, the Government LATS allowance and the financial penalties for failing to comply with the requirements¹².

Figure 9.13 LATS Targets 2004 to 2020

Year	Estimate MSW to Landfill	Government Allowance	Difference	Fines if no action taken
2004/05	42,750	44,731	N/a	
2005/06	41,172	43,481	-2,309	Credit
2006/07	39,735	41,604	-1,869	Credit
2007/08	39,735	39,103	632	Use Credit to pay
2008/09	38,299	35,976	2,323	Use Credit to pay
2009/10	38,299	32,224	6,075	£911,250
2012/13	37,581	21,463	16,118	£2,417,651
2019/20	36,144	15,018	21,126	£3,168,949

9.8.2 The major point to note with this table is that if by 2019/20 Torbay cannot reduce its waste by 21,126 tonnes, the fines will be over three million pounds. This is obviously not an option for Torbay Council and therefore there is a need to look at strategic alternatives to address this problem.

9.9 The Proximity Principle in Torbay

9.9.1 PPS 23 and PPG 10 advocate the Proximity Principle. The main emphasis is on a self-sufficiency approach to waste management on a regional and sub regional scale in order to reduce the transportation of waste.

9.9.2 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.

9.9.3 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 processing¹³ and steel to Llanelli. Textiles go to Bristol and Glass to Sheffield.

¹² Torbay Council (May 2005) Municipal Waste Management Strategy for Torbay (Consultation Draft) 2005 - 2025, Environmental Policy

¹³ Torbay Council, Personal Communication, Civic Amenity Centre (March 2005)

9.10 Community involvement

9.10.1 Torbay has a successful record for working within the community in areas such as education to support recycling within the Bay. The Green Apple award for the Best UK Unitary Authority was presented to Torbay Council in November 2005. It was in acknowledgement of the work that has been carried out, targeting the age 55+ sector of residents, informing and educating them on recycling and waste minimisation issues.

The Elderly

9.10.2 In Torbay, this age group makes up a significant percentage of the population (26%). The Council enlisted the help of local agencies such as Age Concern, housing associations and lunch clubs. The plan was to visit every sheltered accommodation (both private and public owned), attend as many lunch clubs as possible, and hold compost clinics and road shows, specifically aimed at this sector.

9.10.3 Over a twelve month period, 42 sheltered accommodation establishments (out of a potential 47) were visited by the Recycling Officer. The officer also ran workshops and gave talks at 11 lunch clubs, ran 5 compost clinics, 6 road shows and attended 3 senior life skills open days. The council has also promoted recycling issues in magazines aimed at this sector.

9.10.4 These residents are now being visited for a second time, to catch up and in some cases, extend the materials that they are collecting. On these second visits the Recycling officer found that the majority are well into the swing of recycling and waste minimisation and are producing high quality recycle. Via this initiative, the council has contacted over 35% of its target audience and has sold over 350 compost bins, during this period.

Schools

9.10.5 In 2005 the Recycling Officer visited 11 schools to promote waste minimisation. A number of those schools are also registered as Eco Schools which involves criteria for waste minimisation and recycling, as well as other criteria (see figure 9.14 below).

Figure 9.14 Schools visited 2005/06

Schools Visited 2005/06

<u>Name of school</u>	<u>Date Visited</u>	<u>Topics covered</u>
Brixham C of E Infants School	Ongoing	As above, but already an Eco School Green Flag winner
Chestnut Primary School	June and August	Launch of Alupro cans for trees campaign, followed by compost facilities for the grounds waste Also worked on composting and wormery for the fruit waste
Cockington Primary School	June	Paper making workshop, followed by paper recycling in school

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<u>Name of school</u>	<u>Date Visited</u>	<u>Topics covered</u>
Coombe Pafford School	May	Paper recycling project in school
Foxhole Infants School	April	Eco Schools - (achieved Bronze Nov 05)
Mayfield School	April	Registered as Eco School
Oldway primary School	Ongoing	Paper recycling followed by enrolment in Eco Schools programme with regular Eco School meetings
Queensway Primary School	October	Paper recycling in school - possible Eco School
Roselands Primary School	June	Paper making workshop, followed by paper recycling in school
Torquay Girls Grammar School	June and September	Paper recycling project in school, extended to 6th form
White Rock Primary School	July	Registered as an Eco School - help as Oldway (achieved Bronze and Silver status Sept 05)

Businesses

9.10.6 The Groundwork Trust has been working with businesses participating in the 'Envision Business Support Programme'. The programme includes waste minimisation and recycling education. There are currently 12 businesses taking part in Torbay, although uptake has been slow. One business is currently extending the programme to include working towards ISO 14001 (an Environmental Management system).

Adults with Learning Disabilities

9.10.7 Torbay Council has worked with both Torquay Community Resource Centre (CRC) and Hollacombe CRC on various recycling initiatives involving adults with learning disabilities. Both centres have for many years, collected cans from many local premises in Torbay (including Paignton Pier and other local attractions) Recently, Hollacombe CRC has increased the number of premises that they collect cans from, to include Oldway Mansion and also the Babbacombe Model Village

9.10.8 Clients from the centre deliver can collection boxes (supplied by the Council) to businesses free of charge and then collect the cans on a regular basis. Other less able Clients then crush the cans which are then sold to a local scrap metal dealer for funds for the centre. This practice involves clients with learning difficulties of various levels, going out into the workplace and raising awareness of both recycling and community issues. They hope to expand the collection in 2006 to include plastic bottles.

9.11 Minerals

9.11.1 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 itself 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 area¹⁴.

9.12 Summary

9.12.1 Torbay's waste policies are based on European, National and Regional legislation and guidance. 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 waste infrastructure to enable Torbay to meet the targets set for 2010/11 and beyond. Reduction and reuse strategies will become more important as Torbay has a growing population who individually produce an increasing amount of waste. Currently waste that is not recycled is sent to landfill. In terms of government targets, financial penalties and sustainability principles this situation is not acceptable and alternatives will need to be considered. There is a need to make the community more aware of its responsibility for minimising and recycling household waste.

9.13 Additional Information

Landfill Sites

9.13.1 Torbay disposes of its landfill outside the Unitary Authority area (at Heathfield) and, although there are historic landfill sites within Torbay, the WMS will not directly influence the management of these sites. The historic sites are ones that are either redundant / at maximum capacity, or very old locations that are fundamentally in filled land such as an old quarry. Examples include sites at Sharkham Point and Clennon Valley.

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

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

¹⁴ Torbay Council (2004) Adopted Torbay Local Plan 1995-2011

Refuse vehicles

9.13.2 Torbay Council does not own any LPG refuse vehicles at the present time. There are, however, three vehicles which have particulate traps fitted to improve their emissions.