



Cape Cod Household Hazardous Waste Report for 2003

Includes Revised Cost Data for 2001 and 2002

prepared by

Barnstable County

**Cape Cod Commission
3225 Main Street
Barnstable, Massachusetts 02630**

**Margo L. Fenn, Executive Director
John Lipman, Chief Planner/Deputy Director**

Waste Management Staff

**Gregory M. Smith, Planner/Waste Management Specialist
Andrea Adams, Planner/Hazardous Waste Specialist**

Cape Cod Household Hazardous Waste Report for 2003

This report compiles the results of household hazardous waste collections held in 2003 in Cape Cod's 15 towns. It is hoped that this information will be helpful in refining collection programs, increasing their cost-effectiveness and monitoring trends in each town and regionally.

The report includes eight tables. The first and second tables indicate when collection events were held and describe the amount of waste collected. The third and fourth tables indicate the number of households served in each town and the participation rate based on both 1990 and 2000 Census data on year-round households in each town. The fifth and sixth tables detail the total cost per town for waste disposal and provide a cost breakdown per household served. The seventh and eighth tables indicate the number of cars served at each event and the resulting cost per car.

This report includes revised Total Cost data (Table 5) for 2001 and 2002. The revised data in Table 5 has also changed the information shown in Table 6 and 8.

Year-to-year comparisons of household hazardous waste collection events are difficult, particularly given that many towns now hold joint/multiple collections. As such, it is important to look at trends in the information.

Overall, more towns are holding collections than in the early 1990s, costs remain under control, and towns continue to divert a significant amount of waste that might otherwise be disposed at either SEMASS, the regional waste-to-energy incinerator in Rochester, Massachusetts, or into septic systems and sewage treatment plants.

Average cost for waste disposal is a good indicator of trends. It reflects the hazardous waste disposal company's cost of providing services to Cape towns, a factor that is influenced by better bidding and prices in the national waste disposal market.

With these points in mind, some conclusions can be drawn from the 2003 data:

- **Regional participation rates remained strong.** The number of towns achieving 5% or greater involvement by their year-round households increased in 2003 to twelve towns. And, many groups of towns held joint, multiple events, including Barnstable, the Cape's largest town.
- **Costs continued to remain low: The average cost per household Capewide was \$27.** It should be noted that per-participant costs have remained under \$30 for six of the seven years in this report, despite towns increasing the number of events held. And, waste disposal cost figures since 2000 have include additional expenses incurred by towns such as advertising or paying for a police traffic detail.
- **All Cape towns held at least one collection event.** In addition, Harwich held multiple joint collections with Brewster and Chatham, and the Upper Cape towns again held multiple events. Further, the three Outer Cape towns also held joint collections. And, for the first time, Barnstable combined with Yarmouth and held multiple events at Barnstable's transfer station.

2003 was the fifth year Harwich operated a household hazardous waste collection center, and the second year that Brewster, Chatham and Harwich held joint events. The Harwich Highway Department oversees the facility at the town landfill, which was open from mid-May to mid-October.

The four towns bordering the Massachusetts Military Reservation (Bourne, Falmouth, Mashpee, and Sandwich) working with Coast Guard Air Station Cape Cod, also held a fourth year of combined events in 2003.

The Cape Cod Commission, in cooperation with the Cape Cod Cooperative Extension, also continued the effort to distribute a supply of digital thermometers provided by SEMASS at household hazardous waste collections. The intent was to give participants an incentive to properly dispose of mercury-containing fever thermometers. Educational materials distributed before collection events also advised people to bring in other mercury-containing products for proper disposal. Overall, the mercury collection program continued to be a success. Information from Cape Cod Extension indicates that approximately 63.7 pounds of mercury, including elemental mercury, thermometers, thermostats, switches, and blood pressure cuffs, were collected by Cape towns, businesses and other organizations.

The Cape Cod Commission first began to compile data on one-day events in 1992. In the seven years between 1997 and 2003, Cape towns collected approximately 245,578 gallons of household hazardous waste, or an average of 35,083 gallons per year. This figure is only part of the Cape's household hazardous waste management picture. Towns continue to manage other wastes year-round at Recycling Centers and Transfer Stations. This report does not include paint or related materials swapped or collected for disposal at paint sheds or used oil, oil filters, antifreeze and fluorescent light bulbs collected and disposed of through ongoing municipally run programs.

The hazardous waste management industry continued to consolidate in 2003 in the Northeast. Jones Environmental Services (NE), Inc. became a division of Veridium Environmental in mid-summer.

The Commission staff welcomes comments on this report.

TABLE 1

Dates Held

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Dates Held | | | | | | |
|---------------------|-------------------|---------------|----------------|---------------|----------------------|---------------------------|------------------------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | 6-Sep | 12-Sep | 11-Sep | 9-Sep | 8-Sep | No collection | Footnote 9 |
| Bourne | 23-Aug | 22-Aug | 14-Aug | Footnote 2 | Footnote 4 | 11-May/13-Jul/ Footnote 7 | 14-June/13-Sep/ Footnote 10 |
| Brewster | 6-Sep | 12-Sep | 11-Sep | 9-Sep | 22-Sep | Footnote 8 | Footnote 11 |
| Chatham | 23-Aug | 24-Oct | 28-Aug | 26-Aug | 25-Aug | Footnote 8 | Footnote 11 |
| Dennis | 31-May/16-Aug | 30-May/12-Sep | 22-May/11-Sep | 3-June/9-Sep | 2-June/ 8-Sep | 1-June/ 7-Sep | 7-June/13-Sep |
| Eastham | 27-Sep | 26-Sep | 18-Sep | 16-Sep | 21-Jul | 20-Jul | 19-Jul |
| Falmouth | 31-May/20-Sep | 6-Jun/5-Sep | 5-Jun/25-Sep | Footnote 2 | Footnote 4 | 14-Sep / Footnote 7 | 12-July / Footnote 10 |
| Harwich | 21-Jun | 20-Jun | Footnote 1 | Footnote 3 | Footnote 5 | Footnote 8 | Footnote 11 |
| Mashpee | 6-Sep | 10-Oct | 21-Aug | Footnote 2 | Footnote 4 | 8-June/2-Oct / Footnote 7 | 10-May / 4-Oct / Footnote 10 |
| Orleans | 6-Sep | 12-Sep | 11-Sep | 9-Sep | 8-Sep | 21-Sep | 6-Sep |
| Provincetown | 3-May | No collection | 22-May | No collection | 20-Oct / Footnote 6 | 5-Oct / Footnote 6 | 18-Oct / Footnote 6 |
| Sandwich | 23-Aug | 26-Aug | 21-Aug | Footnote 2 | Footnote 4 | 10-Aug / Footnote 7 | Aug-9/ Footnote 10 |
| Truro | 23-Aug | 22-Aug | 21-Aug | 19-Aug | 18-Aug / Footnote 6 | 17-Aug / Footnote 6 | 16-Aug/ Footnote 6 |
| Wellfleet | 31-May/23-Aug | 30-May/22-Aug | 22-May/21-Aug | 3-June/9-Aug | 16-June / Footnote 6 | 15-Jun / Footnote 6 | 21-June / Footnote 6 |
| Yarmouth | 28-Jun | 27-Jun | 26-June/11-Sep | 24-June/9-Sep | 30-June/ 8-Sep | 29-Jun | 28-June / Footnote 9 |

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

1. Harwich held collections at a facility at its transfer station on May 22, June 19, July 17, August 21, September 18 and October 16, 1999.
2. The towns of Bourne, Falmouth, Mashpee, and Sandwich held joint collections at a facility on the Massachusetts Military Reservation in Bourne on May 13, June 10, July 8, August 12, September 16, and October 14, 2000.
3. Harwich held collections at a facility at its transfer station on May 13, June 10, July 8, August 12, September 9 and October 14, 2000.
4. The towns of Bourne, Falmouth, Mashpee, and Sandwich held joint collections at a facility on the Massachusetts Military Reservation in Bourne on May 12, June 9, July 14, August 11, September 8, and at the Bourne Middle School on October 13, 2001.
5. Harwich held collections at a facility at its transfer station on May 12, June 9, July 14, August 11, September 8 and October 13, 2001.
6. The towns of Provincetown, Truro, and Wellfleet held joint collections in 2001 to 2003 for residents from any of these towns on the dates shown above. Each town hosted one of the three events.
7. The towns of Bourne, Falmouth, Mashpee, and Sandwich held joint collections at various locations in these towns on May 11, June 8, July 13, August 10, September 14, and October 12, 2002.
8. Harwich held collections at a facility at its transfer station for residents of Brewster, Chatham and Harwich on May 11, June 8, July 13, August 10, September 14, and October 12, 2002.
9. The towns of Barnstable and Yarmouth held joint collections at Barnstable's transfer station on January 25, February 22, March 22, April 26, May 24, June 28, July 26, August 23, September 27, and October 25, 2003. Yarmouth also hosted a collection in Yarmouth on June 28, 2003.
10. The towns of Bourne, Falmouth, Mashpee, and Sandwich held joint collections at various locations in these towns on May 10, June 14, July 12, August 9, September 13, and October 4, 2003.
11. Harwich held collections at a facility at its transfer station for residents of Brewster, Chatham and Harwich on May 10, June 14, July 12, August 12, September 13 and October 11, 2003.

TABLE 2 Waste Collected (in Gallons)

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Waste Collected | | | | | | |
|---------------------|------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|--|-------------------------------------|-------------------------------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | 5,505 ^{Footnote 6} | 6,275 ^{Footnote 2} | 7,975 ^{Footnote 3} | 7,230 ^{Footnote 10} | 5,600 ^{Footnote 13} | - | 18,865 ^{Footnote 14} |
| Bourne | 2,928 | 3,305 ^{Footnote 2} | 3,285 ^{Footnote 3} | ^{Footnotes 8 & 9} | 13,105 ^{Footnotes 8 & 11} | 3,390 / 2,270 ^{Footnote 8} | 2,635 / 2,225 ^{Footnote 8} |
| Brewster | 1,410 | 1,265 | 1,020 | 1,580 | 1,760 ^{Footnote 7} | See Harwich | See Harwich |
| Chatham | 1,564 | 1,680 | 925 ^{Footnote 3} | 1,030 | 1,350 ^{Footnote 7} | See Harwich | See Harwich |
| Dennis | 1,485 / 495 ^{Footnote 1} | 1,725 / 786 ^{Footnote 2} | No data / 2,065 ^{Footnote 3} | No data / 2,580 | 1,935 / 2,345 | 2,155 / 2,015 | 2,175 / 2,530 |
| Eastham | 1,724 | 1,330 | 1,525 ^{Footnote 3} | 1,235 ^{Footnote 10} | 800 | 1,445 | 1,585 |
| Falmouth | 3,035 / 2,395 | 2,040 / 3,200 ^{Footnote 2} | 2,100 / 2,360 ^{Footnote 3} | 11,880 ^{Footnotes 8 & 9} | See Bourne | 4,135 ^{Footnote 8} | 3,580 ^{Footnote 8} |
| Harwich | 1,280 | 880 | 770 ^{Footnote 7} | 715 ^{Footnote 7} | 770 ^{Footnote 7} | 3,410 ^{Footnote 7} | 6,701 ^{Footnote 7} |
| Mashpee | 920 | 990 ^{Footnote 2} | 1,245 ^{Footnote 3} | ^{Footnotes 8 & 9} | See Bourne | 2,195 / 2,045 ^{Footnote 8} | 1,280 / 2,055 ^{Footnote 8} |
| Orleans | 1,534 | 1,550 | 970 | 1,105 ^{Footnote 10} | 935 | 1,305 | 1,570 |
| Provincetown | 860 | - | 876 ^{Footnote 3} | - | 3,755 ^{Footnote 12} | 1,145 ^{Footnote 12} | 755 ^{Footnote 12} |
| Sandwich | 1870 ^{Footnote 1} | 3,275 ^{Footnote 2} | No data | ^{Footnotes 8 & 9} | See Bourne | 2,025 ^{Footnote 8} | 2,100 ^{Footnote 8} |
| Truro | 1,000 | 750 ^{Footnote 2} | 725 | 920 | See Provincetown | 825 ^{Footnote 12} | 935 ^{Footnote 12} |
| Wellfleet | 615 ^{Footnotes 1 & 5} | 590 ^{Footnote 5} | 815 ^{Footnote 5} | 695 ^{Footnote 5} | See Provincetown | 705 ^{Footnote 12} | 1,445 ^{Footnote 12} |
| Yarmouth | 3,520 ^{Footnote 1} | 3,740 | 3,255 / 1,760 | 2,340 / 1,430 | 2,980 | 1,560 | 920 ^{Footnote 14} |
| Total Waste | 31,240 | 33,381 | 30,901 | 32,740 | 35,335 | 30,625 | 51,356 |

(Footnote 4)

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

Amount of waste collected includes packing materials.

Numbers in the same column separated by a slash (/) indicate information for more than one collection.

Waste data include or exclude Air Station Cape Cod as noted.

1. In 1997, all Cape towns except Dennis, Sandwich, Wellfleet and Yarmouth collected 3,704 pounds of non-liquid waste in addition to the gallons shown in this Table.
2. In 1998, Barnstable, Bourne, Dennis, Falmouth, Mashpee, Sandwich and Truro collected 3,714 pounds of non-liquid waste in addition to the gallons shown in this Table.
3. In 1999, Barnstable, Bourne, Chatham, Dennis, Eastham, Falmouth, Mashpee, and Provincetown collected 9,705 pounds of non-liquid waste in addition to the gallons shown in this Table.
4. In 2000, all the Cape towns collected 1,295 gallons of waste at their transfer stations in addition to the gallons shown in this Table.
5. In 1997-2000, entries for Wellfleet indicate collection events where waste was combined with Truro because these towns shared a single collection site.
6. In 1997, Barnstable collected one pallet of lead-acid batteries, 15 small propane tanks, and 7 large propane tanks in addition to the gallons shown in this Table.

Additional detailed footnotes for Table 2 are included in this report.

Additional Notes for Table 2

7. The figures shown in Table 2 for Harwich in 1999 to 2003 represent the sum total of all collection events for those years. Harwich data from 2001 to 2003 include waste taken from Brewster and Chatham residents. Harwich also collected 1,760 gallons of paint and gasoline at the transfer station in 1997 in addition to the gallons shown in this Table.
8. The figures shown in Table 2 for Bourne, Falmouth, Mashpee, and Sandwich for 2000 to 2003 represent the sum total of each town's multiple collection events.
9. In 2000, the towns of Bourne, Falmouth, Mashpee, and Sandwich, with the Coast Guard Air Station, collected approximately 11,880 gallons of waste from multiple events.
10. In 2000, the towns of Barnstable, Eastham and Orleans collected other wastes not accounted for in this Table, including a drum of household batteries, zinc phosphide, and 425 pounds of coal tar with asbestos.
11. In 2001, the towns of Bourne, Falmouth, Mashpee, and Sandwich, with the Coast Guard Air Station, collected approximately 13,105 gallons and 200 pounds of waste from multiple events.
12. In 2001 - 2003, the towns of Provincetown, Truro and Wellfleet held reciprocal events. Waste amount shown in 2001 is combined and shown as an entry for Provincetown. Waste amounts shown in 2002 and 2003 represent the sum total of each town's collection events.
13. In 2001, Barnstable collected 72 automobile batteries and dry cell batteries in addition to the gallons shown in Table 2.
14. In 2003, Barnstable and Yarmouth held multiple collections at Barnstable's transfer station. Yarmouth also hosted a collection in June. Waste amounts shown represent the sum total of each town's collection events.
15. In 2000, the Cape towns and other organizations also collected 80.4 pounds of mercury, including thermostats, mercury switches, thermometers, blood pressure gauges, and other mercury-containing devices.
16. In 2002, the Cape towns and other organizations also collected 90.8 pounds of mercury, including thermostats, mercury switches, thermometers, blood pressure gauges, and other mercury-containing devices.
17. In 2003, the Cape towns and other organizations also collected 63.7 pounds of mercury, including elemental mercury, thermostats, mercury switches, thermometers, blood pressure cuffs, and other mercury-containing devices.

TABLE 3 Households Served

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Households Served | | | | | | |
|---------------------|-------------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | 701 (e) | 586 | 854 (e) | 716 (e) | 991 (e) | - | 1,311 |
| Bourne | 331 | 337 | 301 | 300 | 342 | 382 | 332 |
| Brewster | 217 | 183 (e) | 147 | 250 (e) | 318 | 137 | 254 |
| Chatham | 254 | 197 | 102 | 152 | 200 | 191 | 231 |
| Dennis | 220 (e) / 135 | 280 (e) / 201 | 256 (e) / 240 | 262 / 233 | 375 (e) / 310 | 362 (e) / 316 | 319 / 398 |
| Eastham | 262 (e) | 161 | 105 | 169 | 84 | 189 | 198 |
| Falmouth | 358 / 232 | 146 / 364 | 259 / 243 | 700 | 547 | 755 | 666 |
| Harwich | 103 | 66 | 593 (e) | 234 | 366 | 341 | 289 |
| Mashpee | 108 | 94 | 132 | 164 | 201 | 350 | 206 |
| Orleans | 171 | 135 | 106 | 125 | 164 | 136 | 164 |
| Provincetown | 92 (e) | - | 77 (e) | - | 151 | 168 | 117 |
| Sandwich | 260 | 337 | 210 (e) | 315 | 315 | 424 | 458 |
| Truro | 65 | 112 (e) | 49 (e) | 93 | 132 | 118 | 130 |
| Wellfleet | 66 (e) / 17 | 51 / 112 (e) | 83 / 85 (e) | 68 / 43 | 102 | 104 | 182 |
| Yarmouth | 453 (e) | 434 | 486 / 287 | 290 / 292 (e) | 387 / 148 | 270 | 110 / 204 |
| Totals | 4,045 | 3,788 | 4,275 | 4,406 | 5,133 | 4,243 | 5,669 |

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

Except as noted below, numbers separated by a slash (/) indicate households served at more than one collection event.

Participation does not include Air Station Cape Cod.

From 1996 to 2000, Truro and Wellfleet held joint collection events.

Figure for Truro 1998 is combined Truro and Wellfleet participation. Second figure shown for Wellfleet in 1998 is combined Truro and Wellfleet participation.

Provincetown, Truro, and Wellfleet held three joint collections in 2001 to 2003, open to residents from any of the three towns. Each town hosted one event.

Figures for Harwich in 1999 - 2003 and Brewster and Chatham in 2002 - 2003 show combined participation for multiple events.

Figures for Bourne, Falmouth, Mashpee, and Sandwich in 2000 - 2003 show participation of residents in each town at multiple events.

Figures for Barnstable and Yarmouth in 2003 show combined participation at multiple events in Barnstable, except that Yarmouth also hosted an event in June, 2003.

(e)=Estimated data

TABLE 4 Participation Rate

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Households 1990 | Households Estimated 2000 | Households 2000 Census |
|---------------------|--------------------|------------------------------|---------------------------|
| Barnstable | 16,601 | 19,195 | 19,626 |
| Bourne | 5,898 | 7,050 | 7,439 |
| Brewster | 3,383 | 4,082 | 4,124 |
| Chatham | 3,023 | 3,436 | 3,160 |
| Dennis | 6,194 | 6,695 | 7,504 |
| Eastham | 1,908 | 2,202 | 2,396 |
| Falmouth | 11,274 | 13,221 | 13,859 |
| Harwich | 4,505 | 5,314 | 5,471 |
| Mashpee | 3,158 | 3,993 | 5,256 |
| Orleans | 2,722 | 3,084 | 3,087 |
| Provincetown | 1,941 | 2,108 | 1,837 |
| Sandwich | 5,557 | 7,003 | 7,335 |
| Truro | 699 | 816 | 907 |
| Wellfleet | 1,129 | 1,274 | 1,301 |
| Yarmouth | 9,594 | 10,544 | 11,520 |
| Totals | 77,586 | 90,017 | 94,822 |

| Participation Rate | | | | | | |
|--------------------|---------|----------|------------------|---------|---------|------|
| 1997 | 1998 | 1999 | 2000 (uses Est.) | 2001 | 2002 | 2003 |
| 4% | 4% | 4% | 4% | 5% | - | 7% |
| 6% | 6% | 4% | 4% | 5% | 5% | 4% |
| 6% | 5% | 4% | 6% | 8% | 3% | 6% |
| 8% | 7% | 3% | 4% | 6% | 6% | 7% |
| 4% / 2% | 5% / 3% | 4% / 4% | 4% / 4% | 5% / 4% | 5% / 4% | 10% |
| 14% | 8% | 5% | 8% | 4% | 8% | 8% |
| 3% / 2% | 1% / 3% | 2% / 2% | 5% | 4% | 5% | 5% |
| 2% | 1% | Footnote | 4% | 7% | 6% | 5% |
| 3% | 3% | 3% | 4% | 4% | 7% | 4% |
| 6% | 5% | 3% | 4% | 5% | 4% | 5% |
| 5% | - | 4% | - | 8% | 9% | 6% |
| 5% | 6% | 3% | 4% | 4% | 6% | 6% |
| 9% | - | 6% | 11% | 15% | 13% | 14% |
| 6% / 2% | 5% / - | 7% / 8% | 5% / 3% | 8% | 8% | 14% |
| 5% | 5% | 5% / 3% | 3% / 3% | 3% / 1% | 2% | 3% |

Average Participation Rate

| | | | | | | |
|----|----|----|----|----|----|----|
| 5% | 5% | 5% | 5% | 5% | 4% | 6% |
|----|----|----|----|----|----|----|

Notes

Population data source: US Census

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

Data do not include participation from Air Station Cape Cod.

Data from events in 1997 to 1999 have been compared to households from 1990 Census, as shown.

Data from 2000 events have been compared to the estimated 2000 households, as shown. Estimate is based on 1999 population projections and population per household.

Data from events in 2001 and beyond have been compared to the actual 2000 Census data, as shown.

For Bourne, Falmouth, Mashpee, and Sandwich in 2000 - 2003, participation shown is for multiple events.

For Harwich in 1999, the range of participation at six events was 1 to 5%. Combined, overall participation for all six events was 13%.

For Harwich in 2000 - 2003, the participation rate shown is for multiple events.

For Brewster and Chatham in 2002 and 2003, the participation rate shown is for multiple events.

For Provincetown, Truro, and Wellfleet in 2001 - 2003, rate shown is for multiple events.

For Barnstable and Yarmouth in 2003, participation is for multiple events.

TABLE 5 Total Cost

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Total Cost | | | | | | |
|---------------------|-------------------|-------------------|--------------------|-------------------|--------------------|-------------------|-------------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | \$14,327 | \$18,810 | \$25,645 | \$26,750 | \$20,900 | - | \$33,401 |
| Bourne | \$10,225 | \$7,385 | \$11,930 | \$6,133 | \$9,034 | \$10,576 | \$9,036 |
| Brewster | \$6,077 | \$3,195 | \$3,450 | \$4,957 | \$6,590 | \$2,774 | \$7,508 |
| Chatham | \$6,140 | \$4,050 | \$3,670 | \$3,105 | \$5,583 | \$4,022 | \$6,862 |
| Dennis | \$6,410 / \$4,310 | \$6,270 / \$5,876 | \$6,385 / \$6,635 | \$7,446 / \$8,021 | \$7,915 / \$7,239 | \$8,175 / \$6,385 | \$8,775 / \$9,438 |
| Eastham | \$11,000 | \$3,220 | \$5,245 | \$5,931 | \$2,623 | \$5,520 | \$5,785 |
| Falmouth | \$9,435 / \$8,161 | \$4,870 / \$7,960 | \$6,500 / \$7,500 | \$14,186 | \$15,207 | \$20,623 | \$17,621 |
| Harwich | \$4,873 | \$2,235 | \$6,255 | \$5,775 | \$6,140 | \$7,073 | \$8,116 |
| Mashpee | \$3,873 | \$2,700 | \$4,895 | \$3,331 | \$5,600 | \$9,518 | \$5,422 |
| Orleans | \$7,695 | \$5,040 | \$3,290 | \$5,490 | \$4,505 | \$5,555 | \$5,725 |
| Provincetown | \$4,255 | - | \$3,265 | - | \$4,677 | \$4,878 | \$3,204 |
| Sandwich | \$8,100 | \$12,500 | \$7,047 | \$6,410 | \$8,632 | \$11,634 | \$12,199 |
| Truro | \$2,196 | \$1,028 | \$1,255 | \$1,300 | \$4,824 | \$3,404 | \$3,560 |
| Wellfleet | \$2,705 / \$2,196 | \$1,720/\$1,028 | \$2,845 / \$1,255 | \$1,395 / \$1,300 | \$4,229 | \$3,063 | \$4,983 |
| Yarmouth | \$10,974 | \$8,870 | \$11,220 / \$6,675 | \$9,854 / \$6,778 | \$10,836 / \$5,328 | \$9,720 | \$3,658 / \$5,199 |
| Totals | \$122,952 | \$96,757 | \$124,962 | \$118,162 | \$129,862 | \$112,920 | \$150,519 |

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data. Some figures have been rounded to the nearest whole dollar.
 The cost data in this report have not been adjusted to reflect supplemental funding provided by the County of Barnstable to cooperative collection events in 2001 - 2003.
 Figures shown for Harwich in 1999 - 2003 are the combined waste disposal cost for multiple events.
 Figures shown for Brewster and Chatham in 2002 and 2003 show the combined waste disposal cost for multiple events.
 Figures shown for Barnstable and Yarmouth in 2003 show the combined waste disposal cost for multiple events.
 Figures for 2000 - 2003 may include additional costs incurred by towns for things such as advertising, police traffic details or provision of containers for general trash.
 Additional data available, by request, from the Cape Cod Commission (but not shown): Total amount budgeted by each town for each collection.

TABLE 6 Cost per Household Served

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | | Cost per Household Served | | | | | | |
|---------------------|--|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | | \$20 | \$32 | \$30 | \$37 | \$21 | - | \$25 |
| Bourne | | \$31 | \$22 | \$40 | \$20 | \$27 | \$28 | \$27 |
| Brewster | | \$28 | \$17 | \$23 | \$20 | \$21 | \$20 | \$30 |
| Chatham | | \$24 | \$21 | \$36 | \$20 | \$28 | \$21 | \$30 |
| Dennis | | \$29 / \$32 | \$22 / \$29 | \$25 / \$28 | \$28 / \$34 | \$21 / \$23 | \$23 / \$22 | \$27 / \$24 |
| Eastham | | \$42 | \$20 | \$50 | \$35 | \$31 | \$29 | \$29 |
| Falmouth | | \$26 / \$35 | \$33 / \$22 | \$25 / \$31 | \$20 | \$28 | \$27 | \$26 |
| Harwich | | \$47 | \$34 | \$25 | \$25 | \$17 | \$21 | \$28 |
| Mashpee | | \$36 | \$29 | \$37 | \$20 | \$28 | \$27 | \$26 |
| Orleans | | \$45 | \$37 | \$31 | \$44 | \$27 | \$41 | \$35 |
| Provincetown | | \$46 | - | \$42 | - | \$31 | \$29 | \$27 |
| Sandwich | | \$31 | \$37 | \$34 | \$20 | \$27 | \$27 | \$27 |
| Truro | | \$34 | - | \$26 | \$14 | \$37 | \$29 | \$27 |
| Wellfleet | | \$41 / \$129 | \$34 / - | \$34 / \$15 | \$21 / \$30 | \$41 | \$29 | \$27 |
| Yarmouth | | \$24 | \$20 | \$23 / \$23 | \$34 / \$23 | \$28 / \$36 | \$36 | \$33 / \$25 |

Average Cost per Household Served On Cape Cod

| | | | | | | |
|------|------|------|------|------|------|------|
| \$30 | \$26 | \$29 | \$27 | \$25 | \$27 | \$27 |
|------|------|------|------|------|------|------|

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

Cost per household for Brewster and Chatham in 2002 and 2003 is combined from multiple events.

Cost per household for Bourne, Falmouth, Mashpee, and Sandwich in 2000 - 2003 is combined from multiple collections.

Cost per household for Harwich in 1999 - 2003 is combined from multiple collections.

Cost per household for Provincetown, Truro and Wellfleet in 2001 - 2003 is combined from multiple events.

Cost per household for Barnstable and Yarmouth in 2003 is for multiple events.

Cost per household in 2000 - 2003 may include expenses incurred by towns for things such as advertising, police traffic details, or provision of containers for trash.

TABLE 7 Cars Served

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Cars Served | | | | | | |
|---------------------|-------------|--------------|--------------|-----------|---------------|-----------|-----------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | 561 | 580 | 700 (e) | 587 (e) | 793 | - | 1,050 |
| Bourne | 291 | 289 | 269 | 243 | 277 | 254 | 285 |
| Brewster | 211 | 150 | 141 | 200 (e) | 274 | 117 | 202 |
| Chatham | 247 | 191 | 80 (e) | 148 | 194 | 136 | 175 |
| Dennis | 180 / 105 | 224 / 157(e) | 210 / 187(e) | 215 / 233 | 300 (e) / 310 | 309 / 306 | 308 / 355 |
| Eastham | 215 | 153 | 102 | 162 | 72 | 172 | 152 |
| Falmouth | 318 / 217 | 126 / 315 | 219 / 210 | 582 | 339 | 483 | 498 |
| Harwich | 98 | 66 | 208 | 227 | 349 | 292 | 251 |
| Mashpee | 102 | 88 | 120 | 136 | 164 | 208 | 91 |
| Orleans | 165 | 116 | 106 | 117 | 152 | 126 | 147 |
| Provincetown | 75 | - | 63 | - | 106 | 116 | 85 |
| Sandwich | 232 | 322 | 172 | 348 | 255 | 309 | 425 |
| Truro | 64 | 90 (e) | 40 | 74 | 107 | 83 | 81 |
| Wellfleet | 54 / 16 | 45 / 90 (e) | 75 / 70 | 62 / 35 | 84 | 89 | 138 |
| Yarmouth | 423 | 385 | 411 / 270 | 270 / 239 | 310 / 120 | 238 | 99 / 149 |
| Totals | 3,574 | 3,383 | 3,653 | 3,878 | 4,206 | 3,238 | 4,491 |

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

No figures shown for Truro or Wellfleet in 1998 for cost per car because the number of cars for these events is combined.

Figures for Bourne, Falmouth, Mashpee, and Sandwich in 2000 - 2003 combine multiple collections.

Figures for Harwich in 1999 - 2003 and Brewster and Chatham in 2002 and 2003 combine multiple collections.

Figures for Provincetown, Truro, and Wellfleet in 2001 - 2003 combine multiple events.

Figures for Barnstable and Yarmouth in 2003 combine multiple events.

(e)=Estimated data

TABLE 8 Cost per Car Served

**Household Hazardous Waste Collections, 1997 - 2003
Cape Cod, Massachusetts**

| | Cost per Car | | | | | | |
|---------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Barnstable | \$26 | \$32 | \$37 | \$46 | \$26 | - | \$32 |
| Bourne | \$35 | \$26 | \$44 | \$25 | \$32 | \$42 | \$32 |
| Brewster | \$29 | \$21 | \$24 | \$25 | \$24 | \$24 | \$37 |
| Chatham | \$25 | \$21 | \$46 | \$21 | \$29 | \$30 | \$39 |
| Dennis | \$36 / \$41 | \$27 / \$37 | \$30 / \$35 | \$35 / \$34 | \$26 / \$23 | \$26 / \$21 | \$28 / \$27 |
| Eastham | \$51 | \$21 | \$51 | \$37 | \$36 | \$32 | \$38 |
| Falmouth | \$27 / \$38 | \$39 / \$25 | \$30 / \$36 | \$24 | \$45 | \$43 | \$35 |
| Harwich | \$50 | \$34 | \$30 | \$25 | \$18 | \$24 | \$32 |
| Mashpee | \$38 | \$31 | \$41 | \$24 | \$34 | \$46 | \$60 |
| Orleans | \$47 | \$43 | \$31 | \$47 | \$30 | \$44 | \$39 |
| Provincetown | \$57 | - | \$52 | - | \$44 | \$42 | \$38 |
| Sandwich | \$35 | \$39 | \$41 | \$18 | \$34 | \$38 | \$29 |
| Truro | \$34 | - | \$31 | \$18 | \$45 | \$41 | \$44 |
| Wellfleet | \$50 / \$137 | \$38 / - | \$38 / \$18 | \$23 / \$37 | \$50 | \$34 | \$36 |
| Yarmouth | \$26 | \$23 | \$27 / \$25 | \$36 / \$28 | \$35 / \$44 | \$41 | \$37 / \$35 |

Cost per Car Served

| | | | | | | |
|------|------|------|------|------|------|------|
| \$34 | \$29 | \$34 | \$30 | \$31 | \$35 | \$34 |
|------|------|------|------|------|------|------|

Notes

Compiled by the Cape Cod Commission and Cape Cod Cooperative Extension from town data.

No figures shown for Truro or Wellfleet in 1998 for cost per car because the number of cars for these events is combined.

Figures shown for Harwich in 1999 - 2003 and Brewster and Chatham in 2002 combine multiple collections.

Figures shown for Bourne, Falmouth, Mashpee, and Sandwich in 2000 - 2003 combine multiple collections.

Figures shown for Provincetown, Truro and Wellfleet in 2001 - 2003 combine multiple collections.

Figures shown for Barnstable and Yarmouth in 2003 combine multiple collections.

Cost per car in 2000 - 2003 may include expenses incurred by towns for things such as advertising, police traffic details, or provision of containers for general trash.