

# **Recycling**

## **Facts & Figures**

**Wisconsin Department of Natural Resources**

**PUBL CE-163 2003 Rev**

## Our Growing Municipal Solid Waste Problem National Statistics

(Expressed in million tons)

|                 | <u>1960</u> | <u>1970</u> | <u>1986</u> | <u>1990</u> | <u>1995</u> | <u>2002</u> |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total           | 87.5        | 118.6       | 157.7       | 172.4       | 208.0       | 232.0       |
| Paper/paper bd. | 29.8        | 43.9        | 64.7        | 71.8        | 81.5        | 86.7        |
| Yard waste      | 20.0        | 23.2        | 28.3        | 31.6        | 29.8        | 27.7        |
| Metals          | 10.5        | 13.7        | 13.7        | 15.3        | 15.8        | 18.0        |
| Plastics        | .4          | 3.0         | 10.3        | 14.4        | 19.0        | 24.7        |
| Glass           | 6.5         | 12.7        | 12.9        | 12.6        | 12.8        | 12.8        |
| Food            | 12.2        | 12.8        | 12.5        | 13.3        | 14.0        | 25.9        |
| Other*          | 6.8         | 9.3         | 12.6        | 13.4        | 35.1        | 36.2        |
| lbs/person/yr   | 972 lbs     |             | 1300 lbs    | 1570 lbs    | 1600 lbs    | 1694 lbs    |

\* Rubber, leather, textiles, wood

## Savings from Product Manufacture\_ Using Recycled Materials

|                 | <u>Paper</u> | <u>Steel</u> | <u>Glass</u> | <u>Aluminum</u> |
|-----------------|--------------|--------------|--------------|-----------------|
| water use       | 60 %*        | 40 %         | 50 %         | -               |
| water pollution | 35 %         | 76 %         | -            | 97 %            |
| air pollution   | 73 %**       | 86 %         | 20 %         | 95 %            |
| mining wastes   | -            | 97 %         | 80 %         | -               |
| energy          | 23-70 %      | 47-74 %      | 4-22 %       | 92-97 %         |

\* 7,000 gallons water per ton

\*\* 60 lbs air emissions

## Energy Savings Through Recycling

Recycling 1 ton of glass saves the equivalent of 10 gallons of oil.

Recycling 1 ton of plastic saves the equivalent of 1-2,000 gallons of gasoline.

Recycling 1 ton of newspaper saves the equivalent of 100 gallons of gasoline.

Recycling 1 ton of aluminum saves the equivalent of 2,350 gallons of gasoline.  
This is equivalent to the amount of electricity used by the typical Wisconsin home over a period of 10 years.

Recycling 1 ton of iron saves 1 ton of coal.

## Wisconsin's Trash Tally for 2000

| <b>Category</b>                                       | <b>Material Generated</b> | <b>Recycled<sup>1</sup></b> | <b>Trash</b>                 |
|---|---------------------------|-----------------------------|------------------------------|
| <b>Residential &amp; Commercial Waste<sup>2</sup></b> |                           |                             |                              |
| Newspaper   | 261,710                   | 177,780                     | 83,930                       |
| Corrugated containers                                 | 661,580                   | 484,370                     | 177,210                      |
| Magazines   | 74,850                    | 23,760                      | 51,090                       |
| High grade office paper                               | 159,710                   | 47,490                      | 112,220                      |
| Mixed waste paper                                     | 577,880                   | 183,820                     | 394,060                      |
| Aluminum beverage cans                                | 32,950                    | 18,400                      | 14,550                       |
| Steel cans  | 55,310                    | 30,380                      | 24,930                       |
| Plastic containers                                    | 70,730                    | 30,370                      | 40,360                       |
| Glass containers                                      | 191,270                   | 112,280                     | 78,990                       |
| Yard trimmings  | 538,380                   | 476,040                     | 62,340                       |
| Food waste  | 663,860                   | 6,500                       | 657,360                      |
| Disposable diapers                                    | 57,450                    | 1,530                       | 55,920                       |
| Vehicle batteries                                     | 38,530                    | 37,370                      | 1,160                        |
| Tires   | 97,260                    | 92,400 <sup>3</sup>         | 4,860 <sup>4</sup>           |
| Major appliances                                      | 71,310                    | 67,750                      | 3,560 <sup>4</sup>           |
| Other waste   | <u>1,096,470</u>          | <u>87,730</u>               | <u>1,008,740</u>             |
| <b>Total</b>  | <b>4,649,250</b>          | <b>1,877,970</b>            | <b>2,771,280</b>             |
| <b>Industrial Waste<sup>2</sup></b>                   | <b>9,115,100</b>          | <b>4,468,230</b>            | <b>4,646,870<sup>5</sup></b> |
| <b>Total Solid Waste<sup>2</sup></b>                  | <b>13,746,350</b>         | <b>6,346,200</b>            | <b>7,418,150</b>             |

1 Includes materials combusted with energy recovered

2 Estimate in tons. Source: Franklin Associates, LTD.

3 Includes 41,110 tons in temporary storage or shipped out of state

4 Estimate at <5%

5 Includes 1,859,900 tons landsread wastewater treatment sludge and 21,200 tons combusted

## 2000 Wisconsin Trash Statistics

### Conversions

|                 |                 |        |             |
|-----------------|-----------------|--------|-------------|
| paper           | 120 lbs--1 tree | 17     | trees/ton   |
| steel (tin) can | 5.75 cans/lb    | 11,500 | cans/ton    |
| aluminum can    | 32 cans/lb      | 64,000 | cans/ton    |
| PETE bottle     | 11 bottles/lb   | 22,000 | bottles/ton |
| HDPE bottle     | 7 bottles/lb    | 14,000 | bottles/ton |
| glass bottle    | 2.5 bottles/lb  | 5,000  | bottles/ton |
| disp. diapers   | 2.26 diapers/lb | 4,520  | diapers/ton |
| tires           |                 | 66.6   | tires/ton   |

### Wisconsin's Trash Tally (units for state)

|                    | Generated     | Recycled      | Trash       |
|--------------------|---------------|---------------|-------------|
| paper (trees)      | 29,507,410    | 15,592,740    | 13,914,670  |
| steel cans         | 636,065,000   | 349,370,000   | 286,695,000 |
| aluminum cans      | 2,108,800,000 | 1,177,600,000 | 931,200,000 |
| PETE bottles       | 625,460,000   | 194,040,000   | 431,420,000 |
| HDPE bottles       | 442,820,000   | 180,250,000   | 262,570,000 |
| glass bottles      | 956,350,000   | 561,400,000   | 394,950,000 |
| disposable diapers | 259,674,000   | 6,915,600     | 252,758,400 |
| tires              | 6,477,516     | 6,153,840     | 323,676     |

### Wisconsin's Trash (units/person)

|                            | Generated | Recycled | Trash  |
|----------------------------|-----------|----------|--------|
| paper (trees)              | 5.50      | 2.91     | 2.59   |
| steel cans                 | 118.59    | 65.14    | 53.45  |
| aluminum cans              | 393.16    | 219.55   | 173.61 |
| PETE bottles <sup>1</sup>  | 116.61    | 36.18    | 80.43  |
| HDPE bottles <sup>2</sup>  | 82.56     | 33.61    | 48.95  |
| glass bottles <sup>3</sup> | 178.30    | 104.67   | 73.63  |
| disposable diapers         | 48.41     | 1.29     | 47.12  |
| tires                      | 1.21      | 1.15     | 0.06   |

<sup>1</sup> equivalents in terms of two liter soda bottles

<sup>2</sup> equivalents in terms of one gallon milk bottles

<sup>3</sup> equivalents in terms of 12 oz glass beverage bottles

## **Trash Trivia**

### **Trash**

In Wisconsin we generate 4.6 million tons of trash and recyclables each year. That's enough to fill a typical city street over 4 feet deep with trash (curb to curb) for 575 miles! If you remove the recyclables, only 357 miles would be filled with trash.

In the United States, we generate enough trash and recyclables each day to fill 72,450 garbage trucks that hold 9 tons of trash each. If you remove the recyclables, only 44,919 garbage trucks would be needed.

### **Landfills**

In Wisconsin there are 39 municipal landfills and 37 industrial landfills (2002).

In the United States there are 1,967 municipal landfills(2000).

### **Office Paper**

In Wisconsin, we use enough office paper each year to build a 10 foot high wall that's 145 miles long. We recycle 56 miles of that wall.

In the United States, we use enough office paper each year to build a 10 foot high wall that's 6,815 miles long or two and half times the distance from New York to Los Angeles.

### **Our Share**

The average person in Wisconsin generates 4.7 pounds of trash (residential and their share of commercial trash) each day and recycles 1.9 pounds of that trash per day.

The average person in the United States generates 4.7 pounds of trash each day and recycles 1.4 pounds of that trash per day.

Yeah, Wisconsin!