Tom Wright
Sustainable Bizness Practices

925-376-0327

Responsible Packaging
Green Mission Project
www.sustainablebizness.com

Natural and Organic Food Industry Packaging Guidelines and Details

responsible-packaging.org

green MISSION

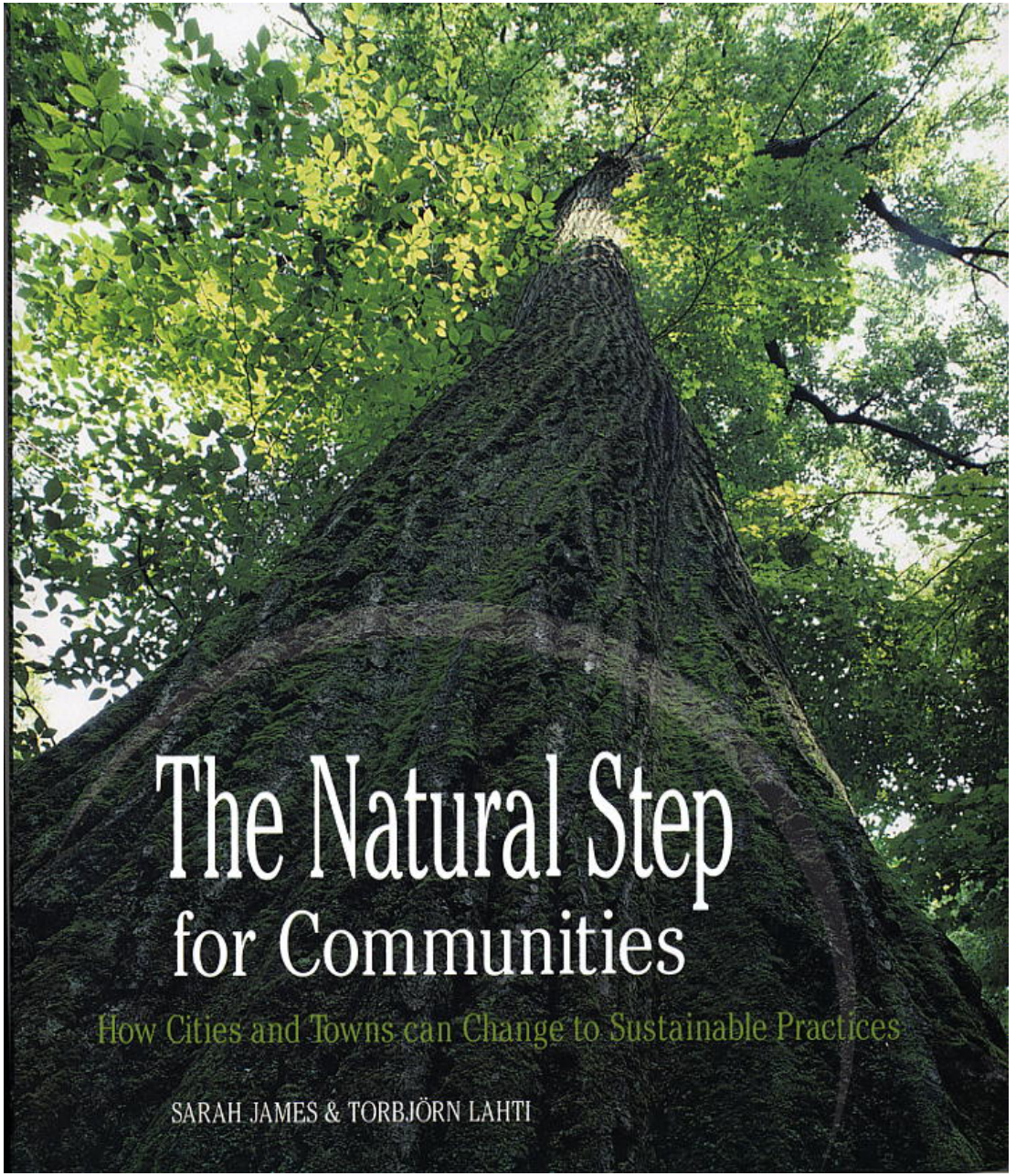
The Johari Window

I Know **You Know**	**I Don’t Know** **You Know**
I Know **You Don't Know**	**I Don’t Know** **You Don’t Know**

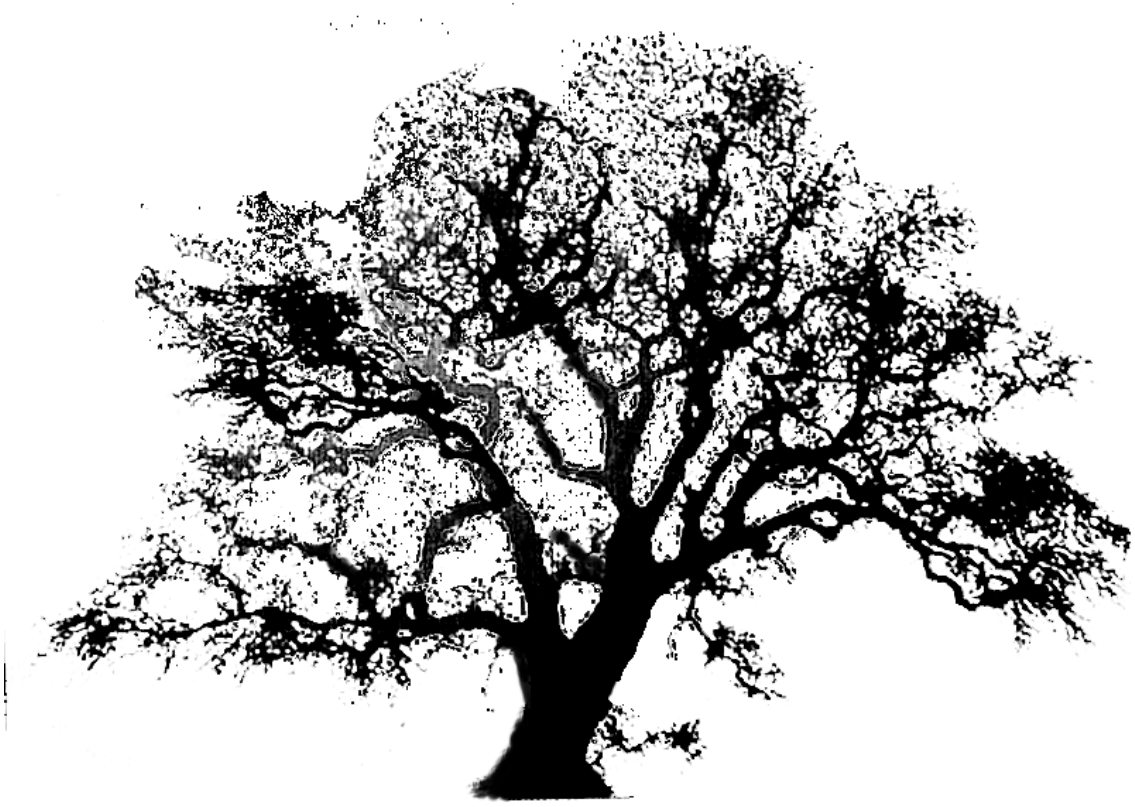
"The significant problems
we have
cannot be solved
at the same
level of thinking
we were at
when we
created them . . ."

-- Albert Einstein

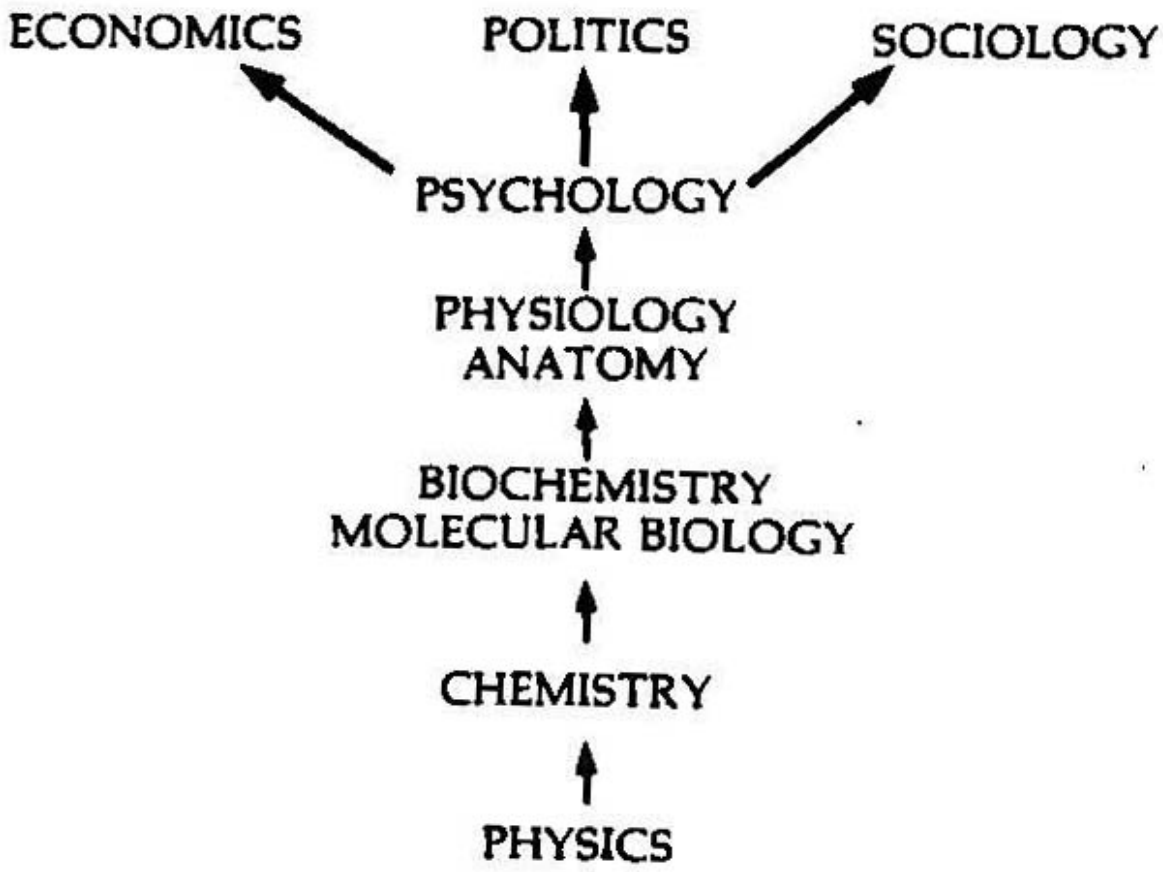
The Natural Step for Communities by James and Lahti



The Oak Tree



The New Biology



Waste Hierarchy Protocol

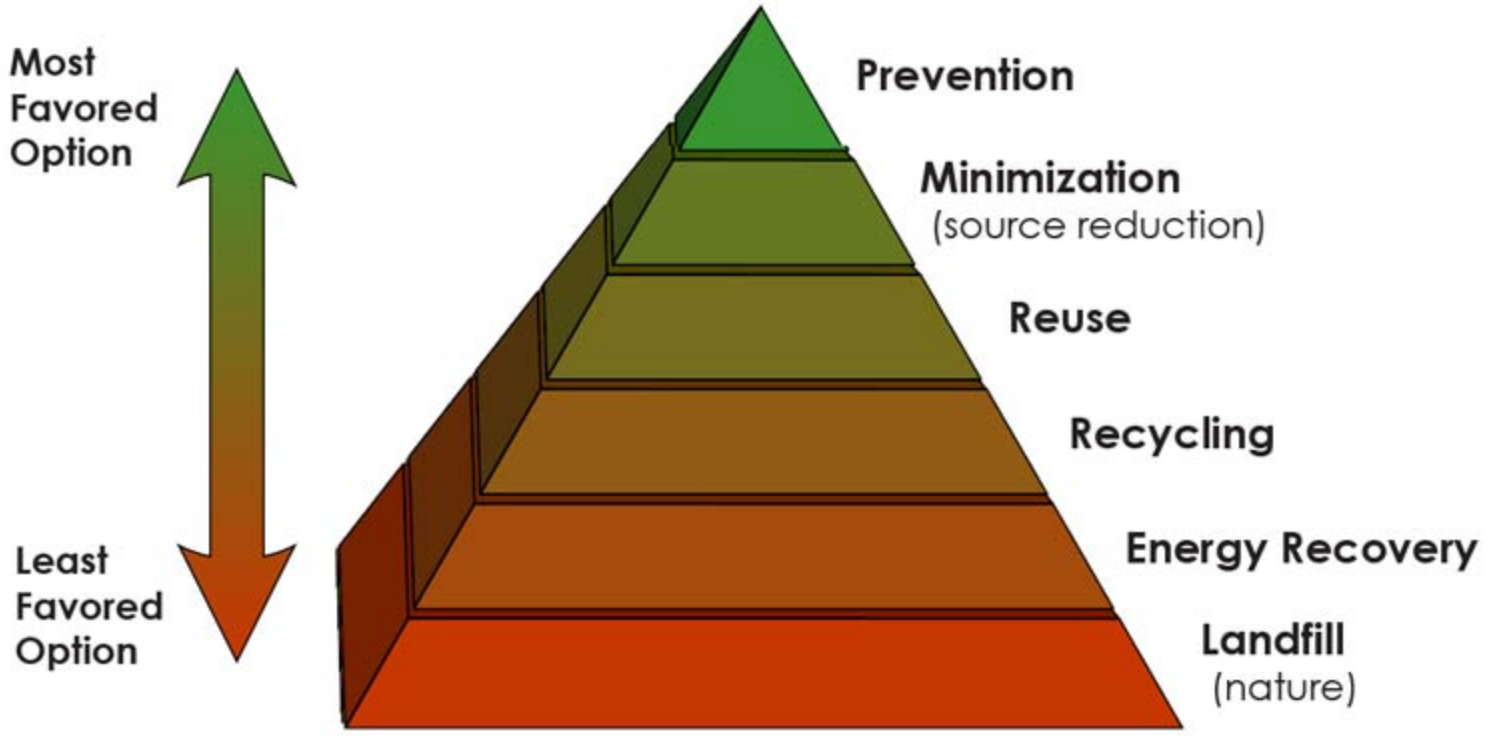


Table 24

SELECTED EXAMPLES OF SOURCE REDUCTION PRACTICES

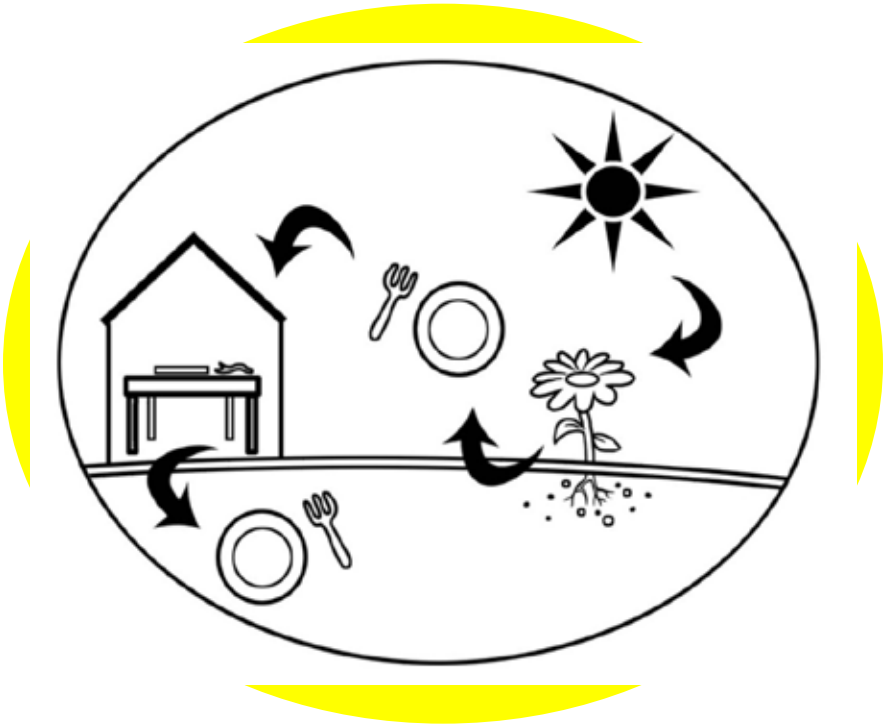
Source Reduction Practice	MSW Product Categories			
	Durable Goods	Nondurable Goods	Containers & Packaging	Organics
Redesign				
Materials reduction	• Downgauge metals in appliances	• Paperless purchase orders	• Concentrates • Container lightweighting	• Xeriscaping
Materials substitution	• Use of composites in appliances and electronic circuitry		• Cereal in bags • Coffee brick • Multi-use products	
Lengthen life	• High mileage tires • Electronic components reduce moving parts	• Regular servicing • Look at warranties • Extend warranties	• Design for secondary uses	
Consumer Practices				
	• Purchase long lived products	• Repair • Duplexing • Sharing • Reduce unwanted mail	• Purchasing: products in bulk, concentrates • Reusable bags	
Reuse				
By design	• Modular design	• Envelopes	• Reusable pallets • Returnable secondary packaging	
Secondary	• Borrow or rent for temporary use • Give to charity • Buy or sell at garage sales	• Clothing • Waste paper scratch pads	• Loosefill • Grocery sacks • Dairy containers • Glass and plastic jars	
Reduce/Eliminate Toxins				
	• Eliminate PCBs	• Soy ink, waterbased • Waterbased solvents • Reduce mercury	• Replace lead foil on wine bottles	
Reduce Organics				
Food scraps				• Backyard composting • Vermi-composting
Yard trimmings				• Backyard composting • Grasscycling

Source: Franklin Associates, A Division of ERG

Sustainability:
Two Simple Rules to Follow

1. Live off of current solar income

2. The cyclic principle: waste = food for something else; there is no bioaccumulation of persistent human-made molecules



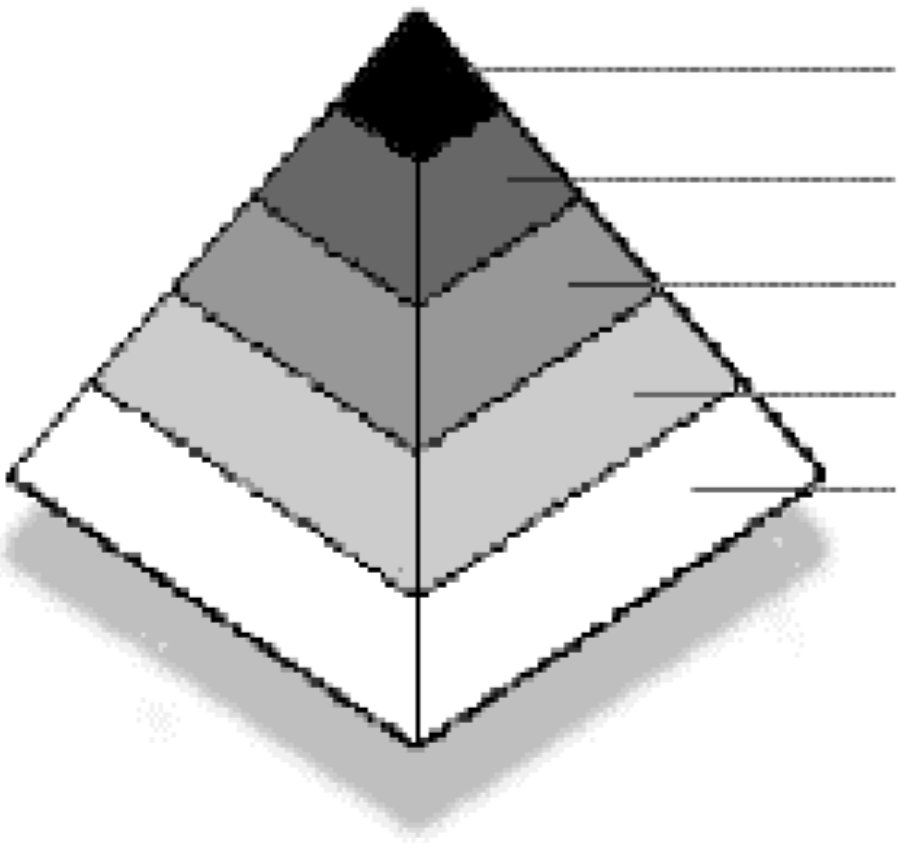
The Cyclic Principle

- There is no “away” : throw away is not an option.
- There’s no “end of life” – just everything is a nutrient in a closed loop system.
- Everything has a “next life”.

The Precautionary Principle

States that if the potential consequences of an action are severe or irreversible, in the absence of full scientific certainty the burden of proof falls on those who would advocate taking the action.

Plastics Hierarchy



PVC

PU, PS, ABS, PC

PET, EVA

PE, PP

Bio-based Polymers

BizNGO Principles for Sustainable ***Plastics***

*www.**bizngo**.org/pdf/**bizngo**-agm2011-**plastics**monicabecker.pdf*

http://www.norcalblogs.com/sustainable/plastictoonsCHASINGARROWS.jpg

Resin Identity codes.

http://www.keepoklahomabeautiful.com/Websites/kob/Images/recycle-plastics.jpg

The start of the ‘garbage patch’?

An aim of these packaging guidelines is to make landfilling, disposal into nature (whether by accident or not), and incineration, obsolete, by placing recycling and/or composting as the minimum goals.

Figure 9. Plastics generation and recovery, 1960 to 2010

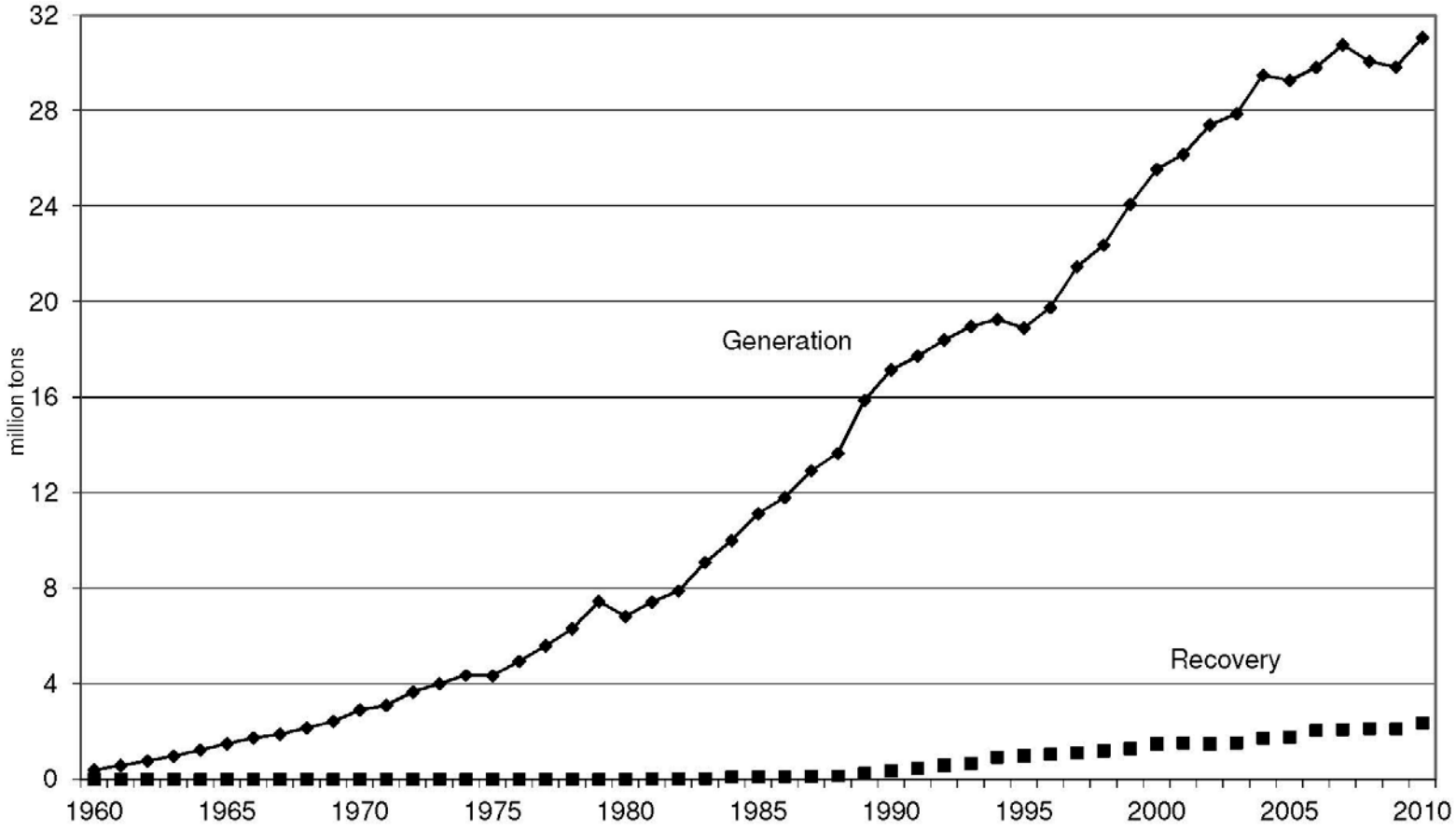


Table 21

RECOVERY* OF PRODUCTS IN MUNICIPAL SOLID WASTE, 1960 TO 2010
(WITH DETAIL ON CONTAINERS AND PACKAGING)
(In percent of generation of each product)

	Percent of Generation of Each Product									
Products	**1960**	**1970**	**1980**	**1990**	**2000**	**2005**	**2007**	**2008**	**2009**	**2010**
Durable Goods *(Detail in Table 13)*	3.5%	6.4%	6.2%	11.6%	16.9%	17.9%	17.8%	17.8%	17.7%	18.5%
Nondurable Goods *(Detail in Table 16)*	13.8%	14.9%	13.6%	16.9%	27.4%	31.1%	34.0%	32.9%	35.3%	36.1%
Containers and Packaging										
Glass Packaging										
Beer and Soft Drink Bottles**	6.4%	2.5%	10.8%	33.5%	26.8%	30.6%	34.6%	35.6%	39.0%	41.4%
Wine and Liquor Bottles	Neg.	Neg.	Neg.	10.3%	22.5%	15.3%	14.8%	14.9%	18.1%	24.7%
Other Bottles & Jars	Neg.	Neg.	Neg.	12.5%	26.9%	14.8%	14.8%	14.8%	17.9%	18.1%
Total Glass Packaging	1.6%	1.3%	5.4%	22.1%	26.1%	24.8%	27.7%	28.0%	31.1%	33.4%
Steel Packaging										
Beer and Soft Drink Cans	1.6%	1.3%	9.6%	26.7%	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	Neg.	1.7%	5.3%	23.2%	58.2%	62.9%	64.6%	62.9%	66.0%	67.0%
Other Steel Packaging	Neg.	Neg.	Neg.	30.0%	66.7%	66.7%	66.7%	79.2%	80.6%	79.5%
Total Steel Packaging	Neg.	1.5%	5.5%	23.9%	58.9%	63.3%	64.8%	64.5%	68.3%	69.0%
Aluminum Packaging										
Beer and Soft Drink Cans	Neg.	10.0%	37.6%	63.9%	54.6%	44.8%	48.6%	48.2%	50.7%	49.6%
Other Cans	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	14.3%	NA	NA
Foil and Closures	Neg.	Neg.	Neg.	6.1%	7.9%	10.0%	9.3%	9.5%	NA	NA
Total Aluminum Pkg	Neg.	1.8%	25.2%	53.2%	44.1%	35.8%	38.8%	38.3%	36.7%	35.8%
Paper & Paperboard Pkg										
Corrugated Boxes	34.4%	21.6%	37.4%	48.0%	67.3%	71.5%	73.6%	76.6%	81.3%	85.0%
Other Paper & Paperboard Pkg										
Gable Top/Aseptic Cartons‡			Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	6.5%	-
Folding Cartons			Neg.	Neg.	7.0%	21.5%	28.0%	35.2%	50.0%	-
Other Paperboard Packaging			Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-
Bags and Sacks			Neg.	Neg.	20.1%	28.6%	36.8%	37.6%	49.5%	-
Wrapping Papers			Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-
Other Paper Packaging	7.5%	9.2%	35.3%	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-
Subtotal Other Paper & Paperboard Pkg										25.0%
Total Paper & Board Pkg	19.4%	14.5%	27.4%	36.9%	52.7%	59.6%	62.5%	65.5%	71.8%	71.3%
Plastics Packaging										
PET Bottles and Jars			3.8%	32.6%	22.1%	23.2%	24.6%	27.2%	28.0%	21.0%
HDPE Natural Bottles			Neg.	3.8%	30.4%	28.8%	28.0%	29.3%	28.9%	27.5%
Other Containers	Neg.	Neg.	Neg.	1.4%	9.8%	9.9%	9.9%	14.7%	16.6%	16.4%
Bags and Sacks										
Wraps										
Subtotal Bags, Sacks, and Wraps			Neg.	2.4%	4.3%	5.2%	9.1%	9.8%	9.4%	11.5%
Other Plastics Packaging	Neg.	Neg.	Neg.	1.0%	3.2%	2.8%	2.3%	3.0%	3.6%	2.9%
Total Plastics Packaging	Neg.	Neg.	Neg.	3.8%	9.2%	10.3%	11.7%	13.3%	13.7%	12.1%
Wood Packaging	Neg.	Neg.	Neg.	1.6%	15.9%	19.8%	21.2%	21.8%	22.5%	23.1%
Other Misc. Packaging	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Total Containers & Pkg	10.5%	7.7%	16.1%	26.0%	38.1%	41.3%	43.3%	45.0%	48.0%	48.3%
Total Product Wastes†	10.3%	9.6%	13.3%	19.8%	29.7%	32.1%	33.9%	34.0%	35.7%	36.4%
Other Wastes										
Food Scraps	Neg.	Neg.	Neg.	Neg.	2.3%	2.2%	2.5%	2.4%	2.5%	2.8%
Yard Trimmings	Neg.	Neg.	Neg.	12.0%	51.7%	61.9%	64.1%	64.7%	59.9%	57.5%
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Total Other Wastes	Neg.	Neg.	Neg.	6.8%	25.8%	30.3%	31.5%	31.6%	29.1%	28.0%
Total MSW Recovered - %	6.4%	6.6%	9.6%	16.0%	28.6%	31.6%	33.2%	33.3%	33.8%	34.0%

* Recovery of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

** Includes carbonated drinks and non-carbonated water, teas, flavored drinks, and ready-to-drink alcoholic coolers and cocktails.

† Other than food products.

‡ Includes milk, juice, and other products packaged in gable top cartons and liquid food aseptic cartons.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available

- Detailed data not available.

Source: Franklin Associates, A Division of ERG

Table 29

GENERATION, MATERIALS RECOVERY, COMPOSTING, COMBUSTION, AND DISCARDS OF MUNICIPAL SOLID WASTE, 1960 TO 2010
(In thousands of tons and percent of total generation)

Thousands of Tons

	1960	1970	1980	1990	2000	2005	2007	2008	2009	2010
Generation	88,120	121,060	151,640	208,270	242,540	252,660	255,380	251,360	243,650	249,860
Recovery for recycling	5,610	8,020	14,520	29,040	53,010	59,300	63,100	61,720	61,530	64,780
Recovery for composting*	Neg.	Neg.	Neg.	4,200	16,450	20,550	21,710	22,100	20,750	20,170
Total Materials Recovery	5,610	8,020	14,520	33,240	69,460	79,850	84,810	83,820	82,280	84,950
Discards after recovery	82,510	113,040	137,120	175,030	173,080	172,810	170,570	167,540	161,370	164,910
Combustion with energy recovery**	0	400	2,700	29,700	33,730	31,620	31,970	31,550	29,010	29,260
Discards to landfill, other disposal†	82,510	112,640	134,420	145,330	139,350	141,190	138,600	135,990	132,360	135,650

Pounds per Person per Day

	1960	1970	1980	1990	2000	2005	2007	2008	2009	2010
Generation	2.68	3.25	3.66	4.57	4.72	4.67	4.64	4.53	4.35	4.43
Recovery for recycling	0.17	0.22	0.35	0.64	1.03	1.10	1.15	1.11	1.10	1.15
Recovery for composting*	Neg.	Neg.	Neg.	0.09	0.32	0.38	0.39	0.40	0.37	0.36
Total Materials Recovery	0.17	0.22	0.35	0.73	1.35	1.48	1.54	1.51	1.47	1.51
Discards after recovery	2.51	3.03	3.31	3.84	3.37	3.19	3.10	3.02	2.88	2.92
Combustion with energy recovery**	0.00	0.01	0.07	0.65	0.66	0.58	0.58	0.57	0.52	0.52
Discards to landfill, other disposal†	2.51	3.02	3.24	3.19	2.71	2.61	2.52	2.45	2.36	2.40
Population (thousands)	179,979	203,984	227,255	249,907	281,422	296,410	301,621	304,060	307,007	309,051

Percent of Total Generation

	1960	1970	1980	1990	2000	2005	2007	2008	2009	2010
Generation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Recovery for recycling	6.4%	6.6%	9.6%	14.0%	21.9%	23.5%	24.7%	24.5%	25.3%	25.9%
Recovery for composting*	Neg.	Neg.	Neg.	2.0%	6.7%	8.1%	8.5%	8.8%	8.5%	8.1%
Total Materials Recovery	6.4%	6.6%	9.6%	16.0%	28.6%	31.6%	33.2%	33.3%	33.8%	34.0%
Discards after recovery	93.6%	93.4%	90.4%	84.0%	71.4%	68.4%	66.8%	66.7%	66.2%	66.0%
Combustion with energy recovery**	0.0%	0.3%	1.8%	14.2%	13.9%	12.5%	12.5%	12.6%	11.9%	11.7%
Discards to landfill, other disposal†	93.6%	93.1%	88.6%	69.8%	57.5%	55.9%	54.3%	54.1%	54.3%	54.3%

* Composting of yard trimmings, food scraps and other MSW organic material. Does not include backyard composting.

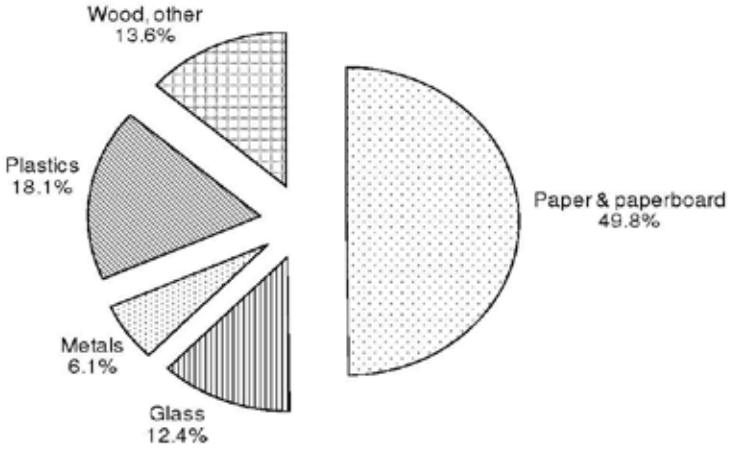
** Includes combustion of MSW in mass burn or refuse-derived fuel form, and combustion with energy recovery of source separated materials in MSW (e.g., wood pallets and tire-derived fuel). 2010 includes 25,930 MSW, 520 wood, and 2,810 tires (1,000 tons)

† Discards after recovery minus combustion with energy recovery. Discards include combustion without energy recovery.

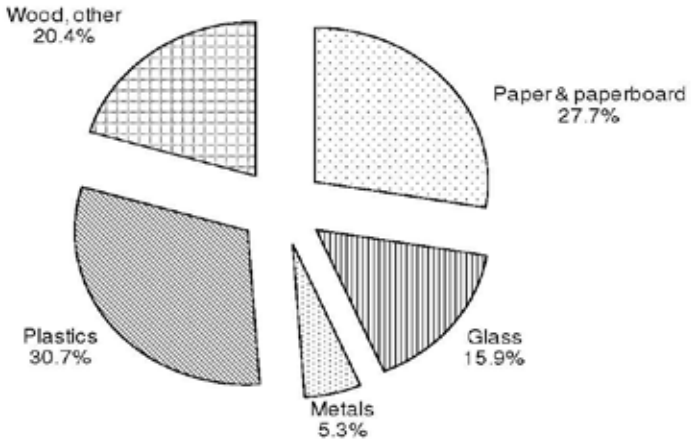
Details may not add to totals due to rounding.

Source: Franklin Associates, A Division of ERG

Figure 16. Containers and packaging generated and discarded*
in municipal solid waste, 2010
(In percent of total generation and discards)



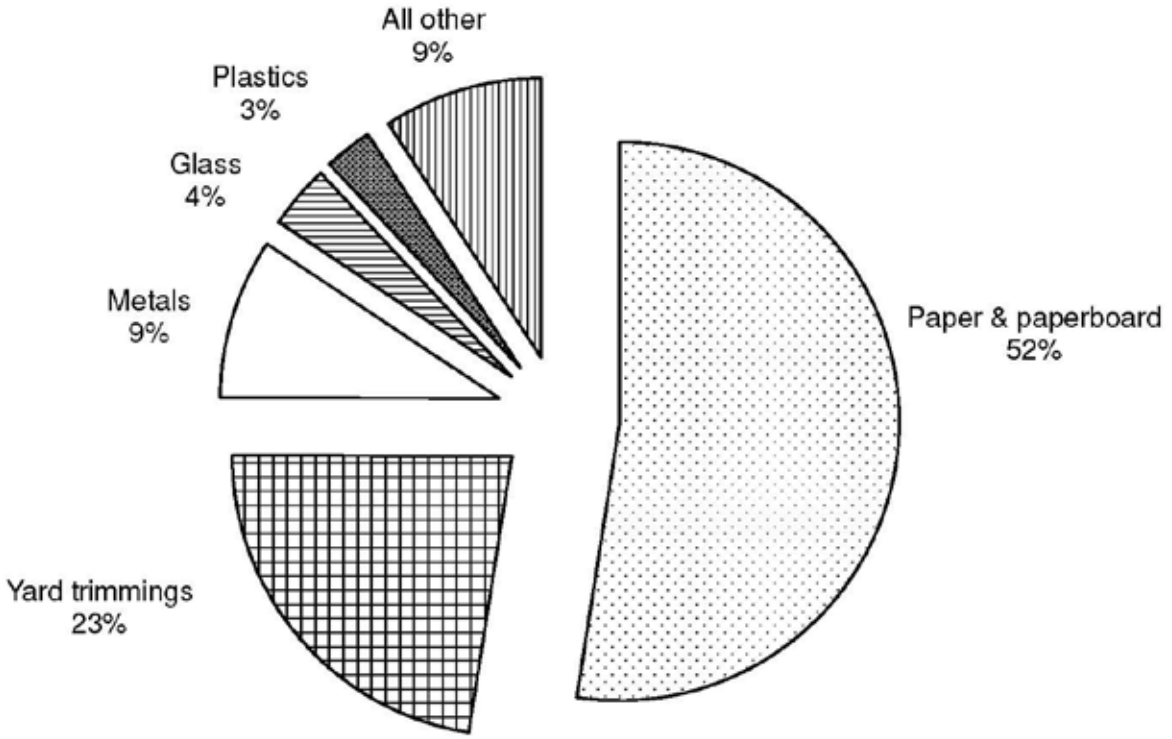
Generation



Discards

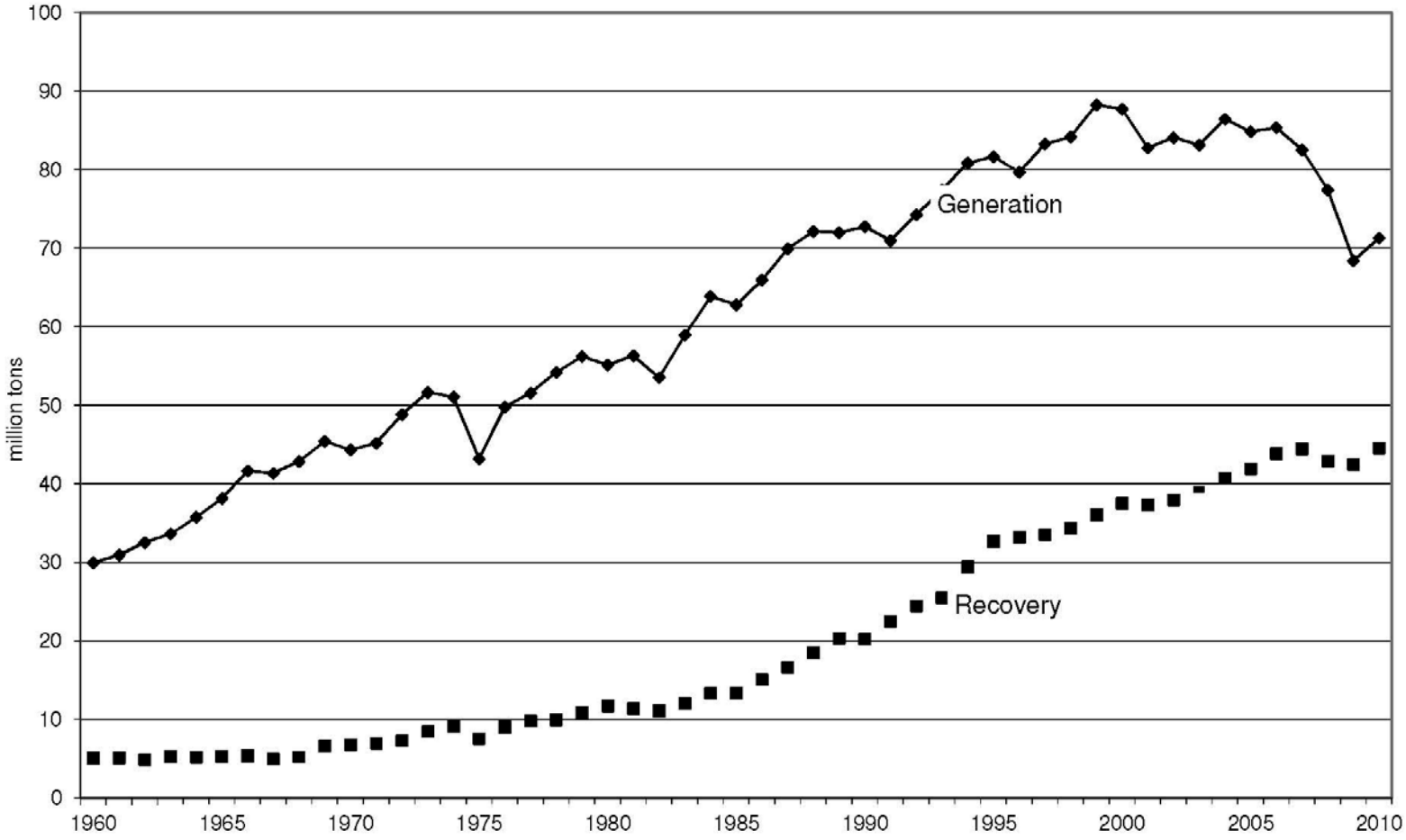
*Discards in this figure include combustion with energy recovery.

Figure 12. Materials recovery,* 2010

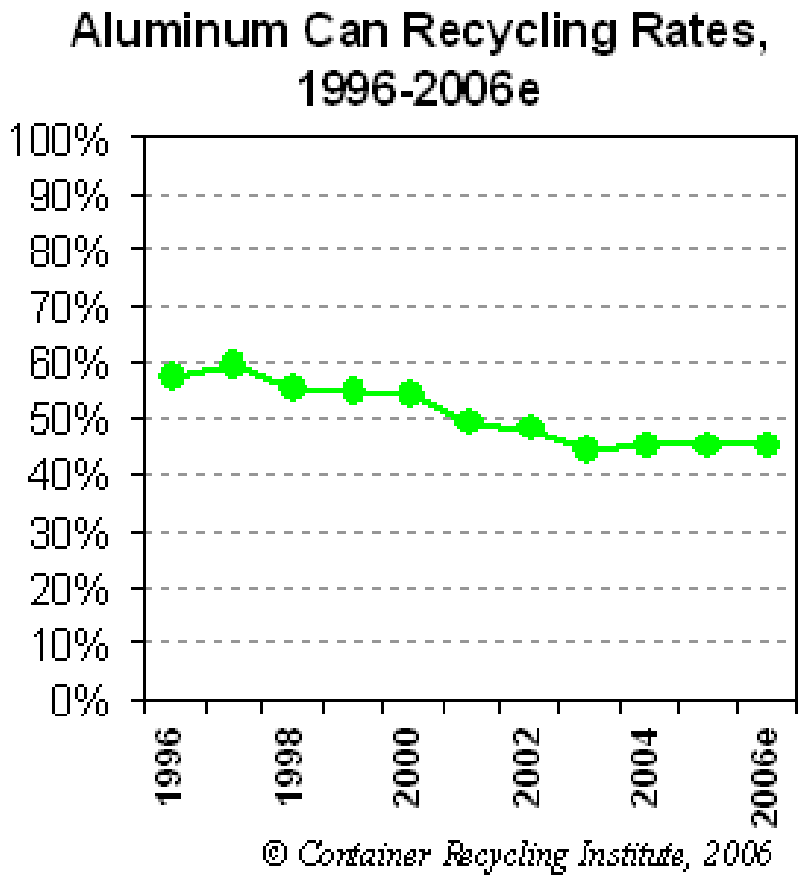


* In percent by weight of total recovery

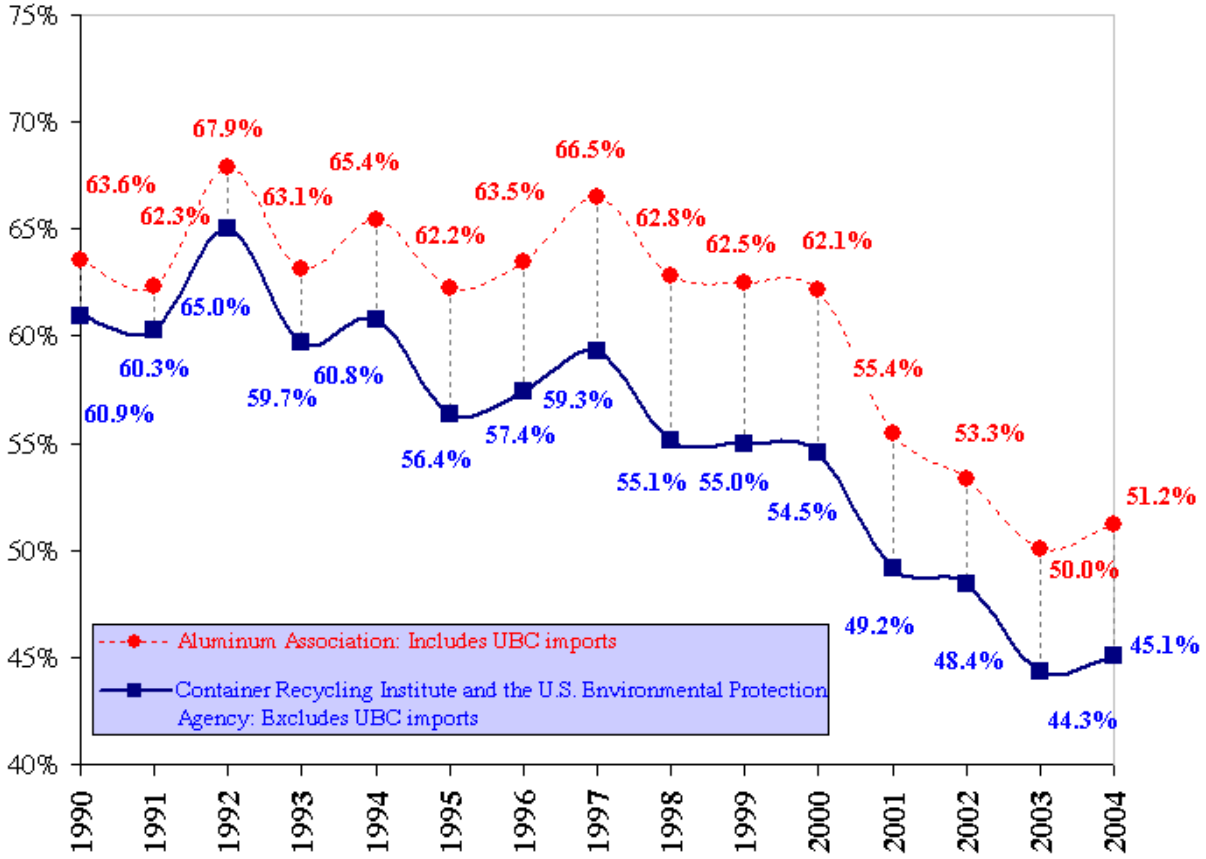
Figure 3. Paper and paperboard generation and recovery, 1960 to 2010



2010 national rate = 50%



Aluminum Can Recycling Rates (1990-2004)

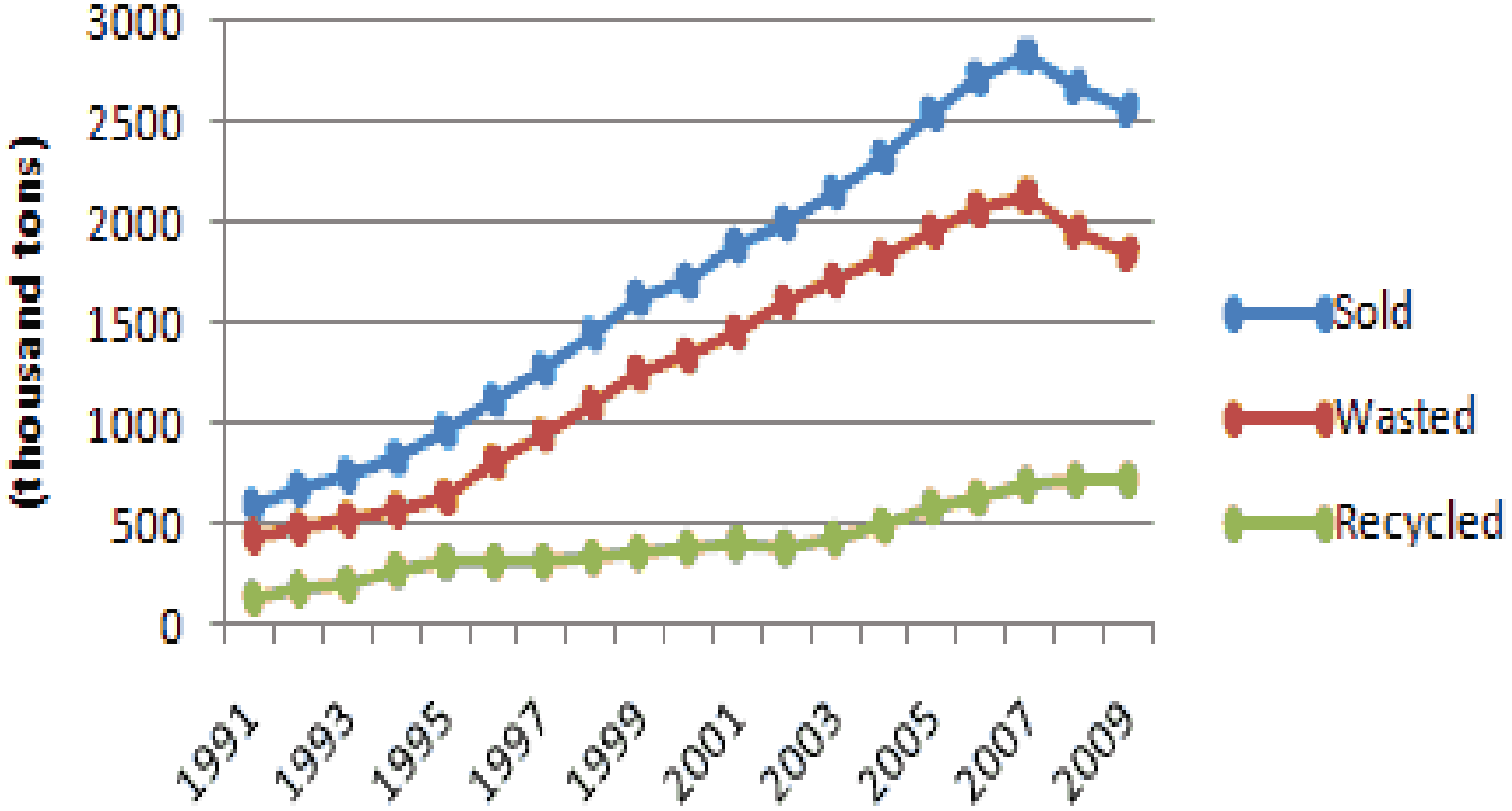


Aluminum Can Recycling Rates (1990-2004)

The U.S. aluminum can recycling rate dropped to 45.1% in the year 2004- twenty percentage points below the 1992 peak of 65

From: http://www.container-recycling.org/facts/aluminum/data/Recrate-CRIvsAA-90-04.htm

PET Bottle Sales and Wasting in the U.S., 1991-2009



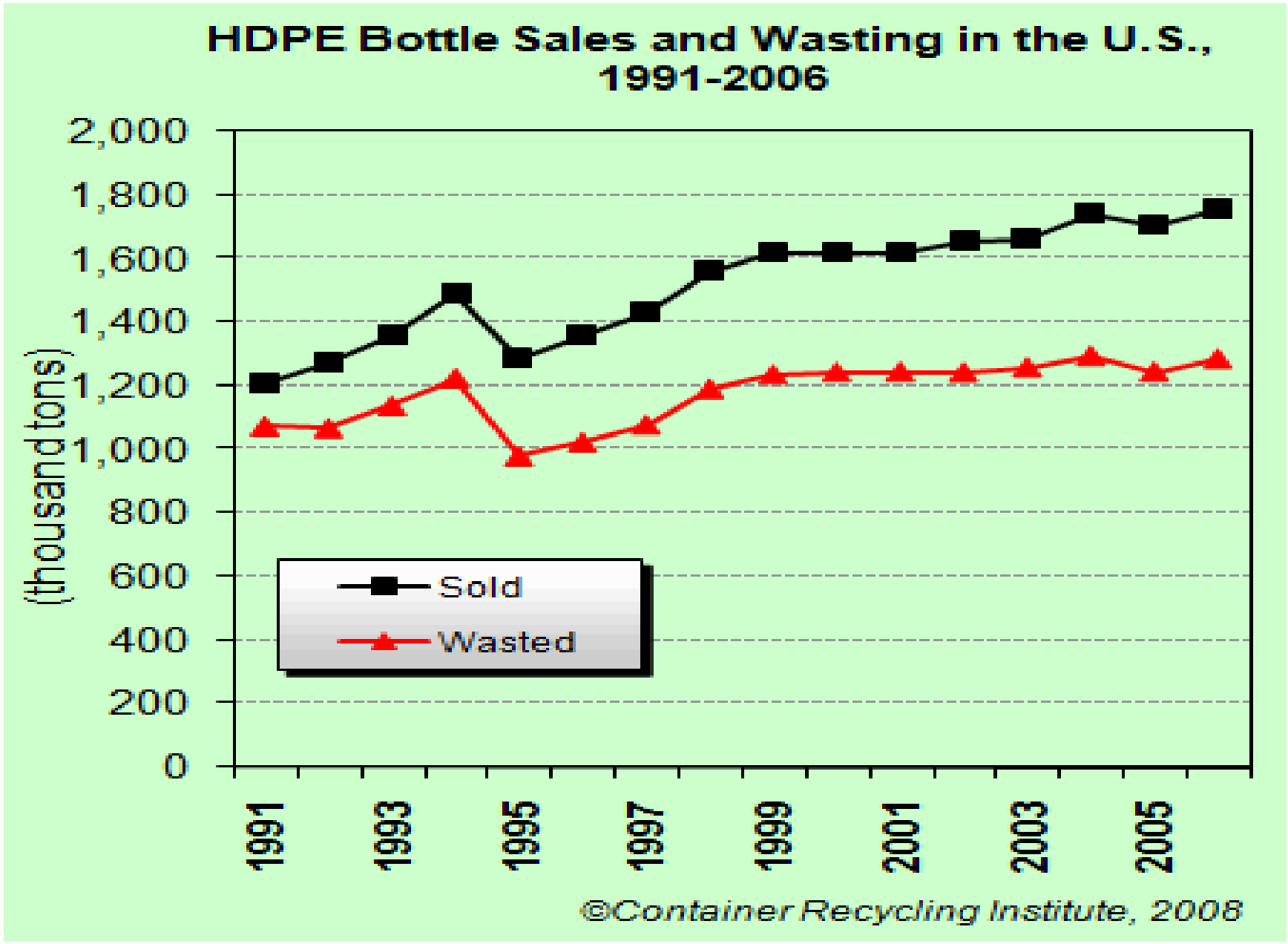
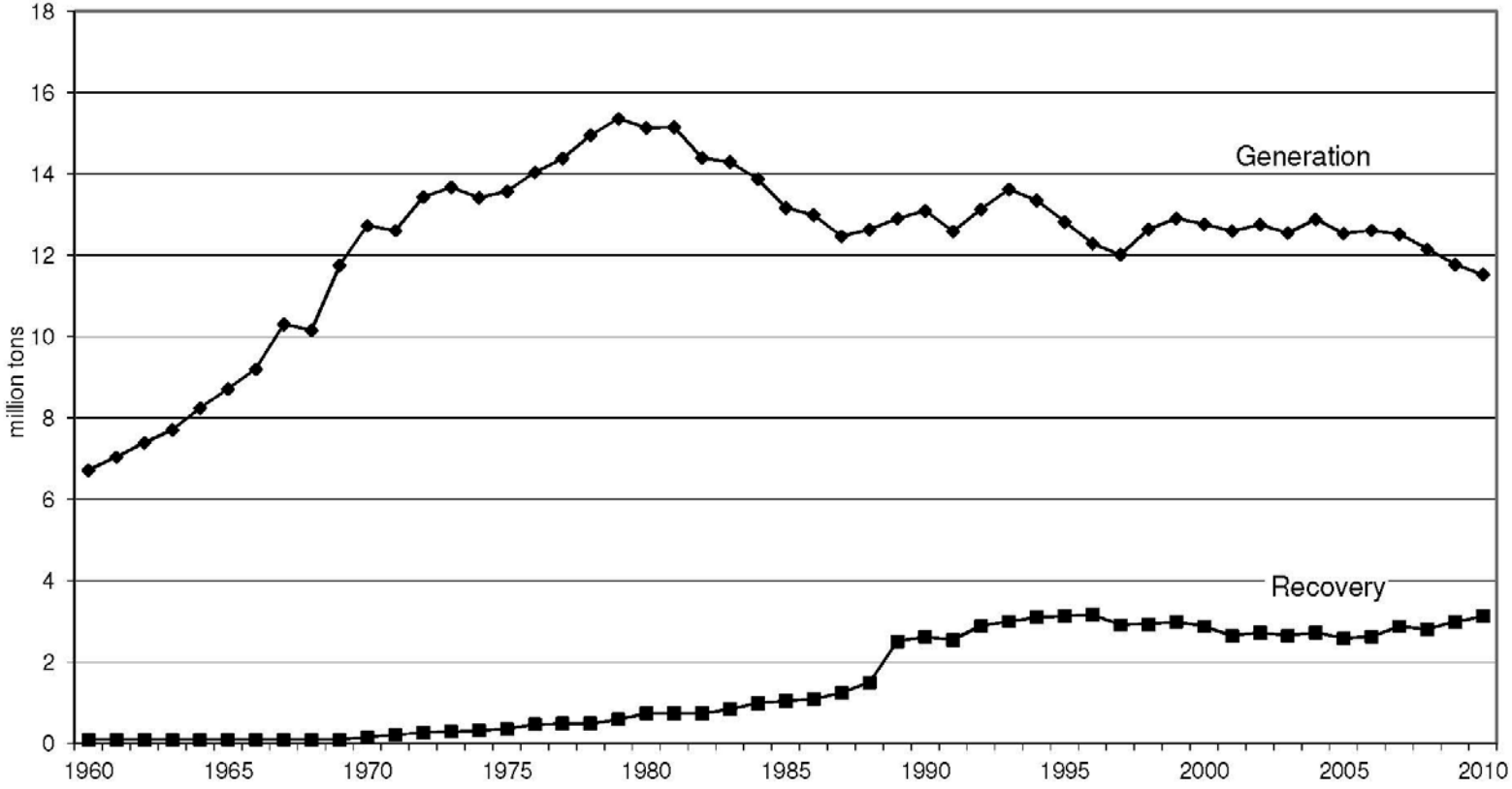
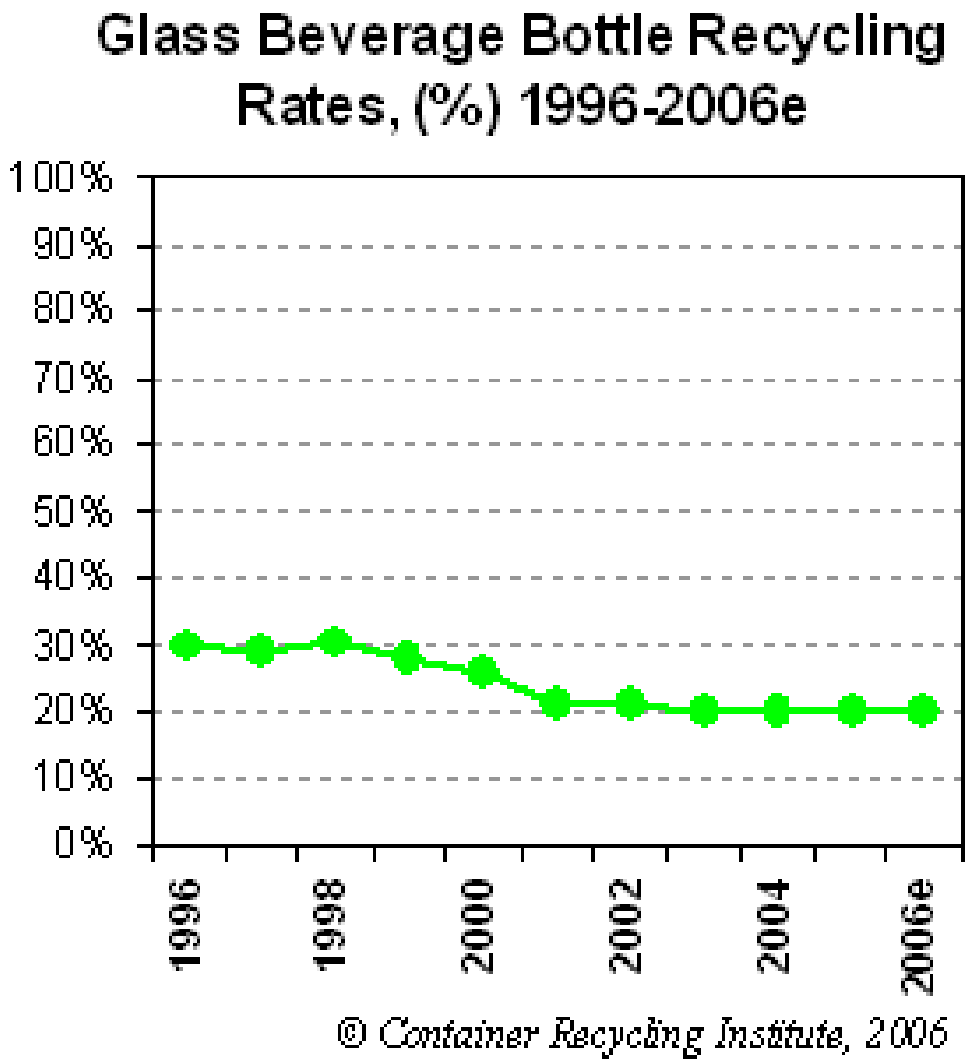

HDPE Bottle Sales and Wasting in the U.S., 1991-2006
(thousand tons)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Sold
Wasted
1991
1993
1995
1997
1999
2001
2003
2005
©Container Recycling Institute, 2008

Figure 5. Glass generation and recovery, 1960 to 2010



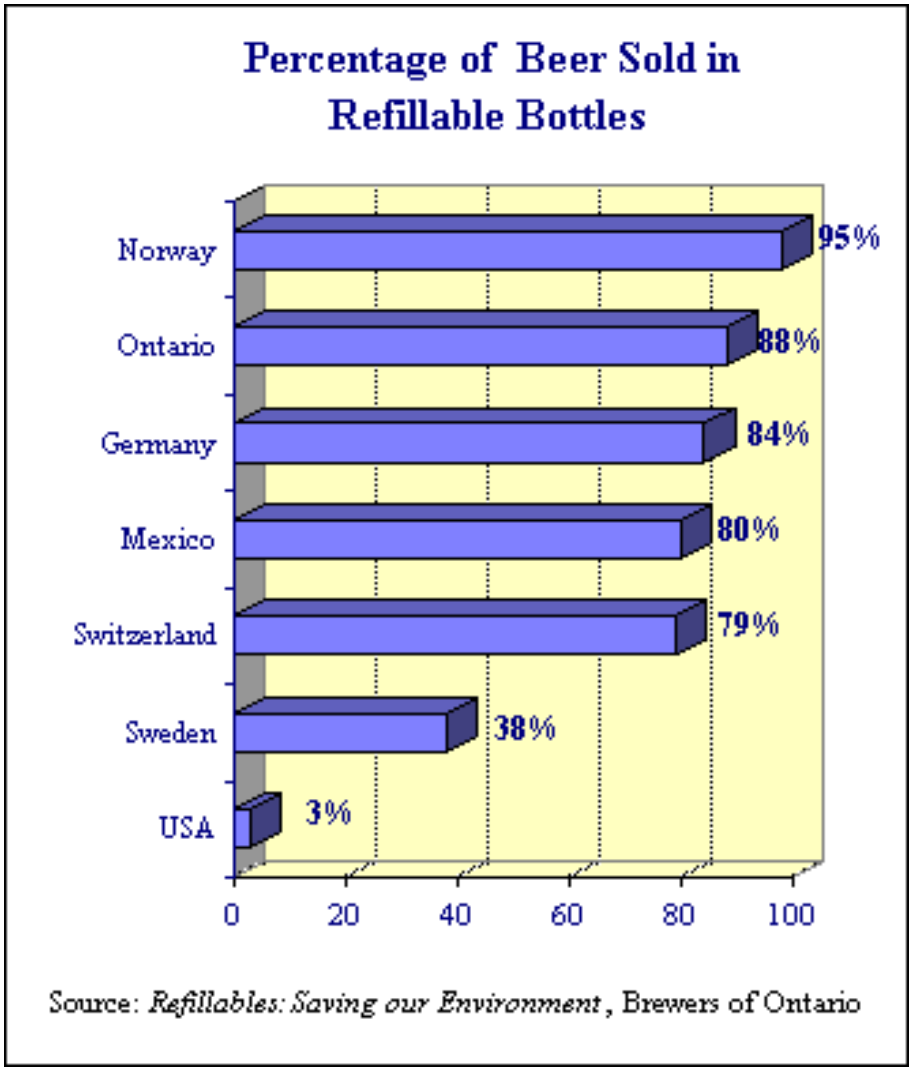

Glass Beverage Bottle Recycling Rates, (%) 1996-2006e
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1996
1998
2000
2002
2004
2006e
© Container Recycling Institute, 2006

Ontario's brewers nearing 'zero waste' with refillable bottles

With 91% of Canadian beer sales in refillable bottles, reuse is alive and well in Canada's most populous province.

A typical beer bottle in Ontario is refilled 15 to 20 times and then it is made into a new container.

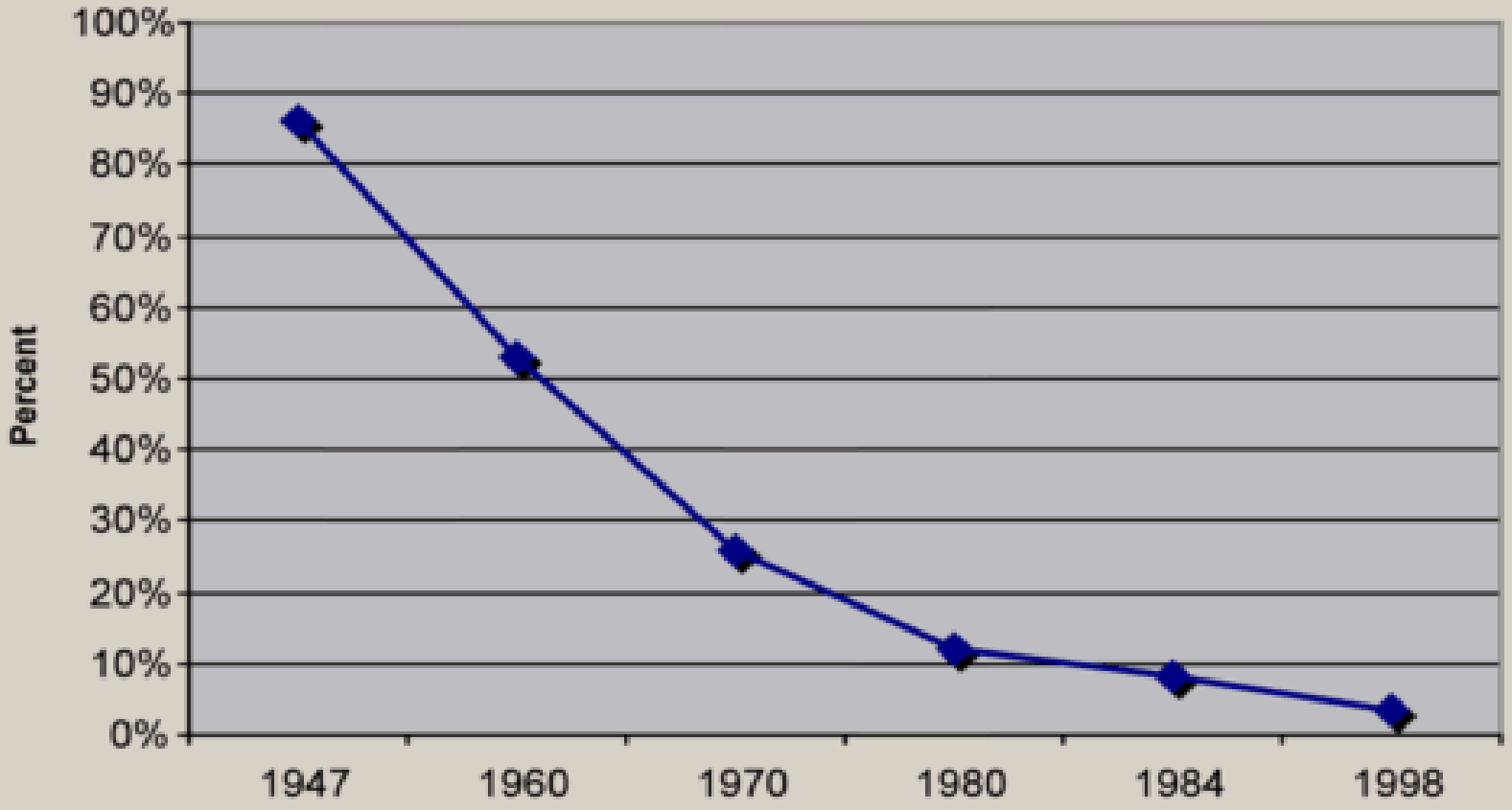
The Beer Store, which is the retail outlet for beer in Ontario, boasts an overall recovery rate of 97.6% on its packaging materials.



From: http://www.container-recycling.org/facts/glass/ontario.htm

Decline of Refillable Beer Bottles

(as a percent of total packaged volume sold)



Source: Can and Bottle Bills, CalPIRG, 1981 for 1947-80 data; Beer Institute, 1998 for 1984 data, Beer Institute 1999 for 1998 data.

Container Recycling Institute

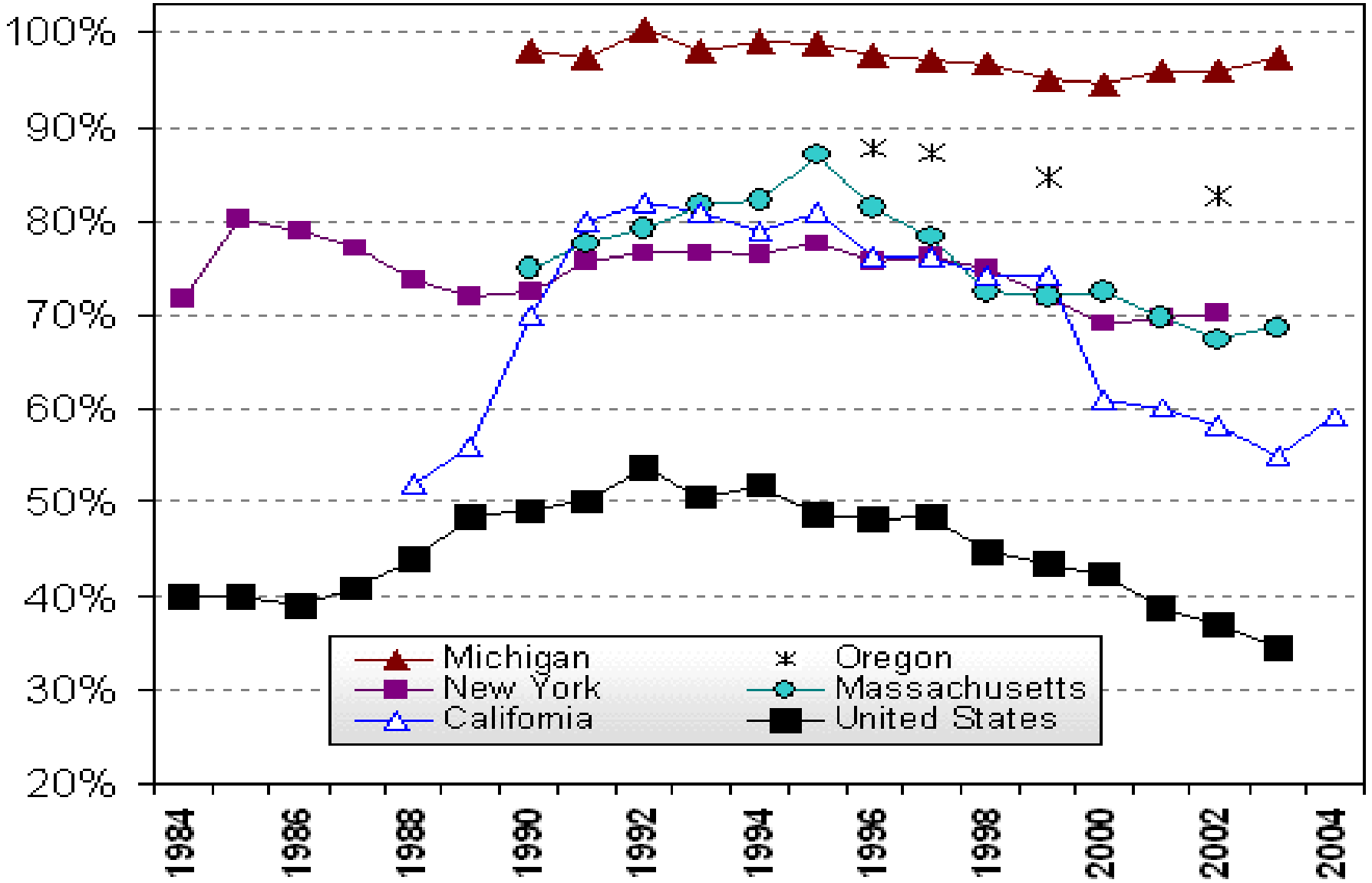
January 2001

From: http://www.container-recycling.org/facts/glass/declbeer.htm

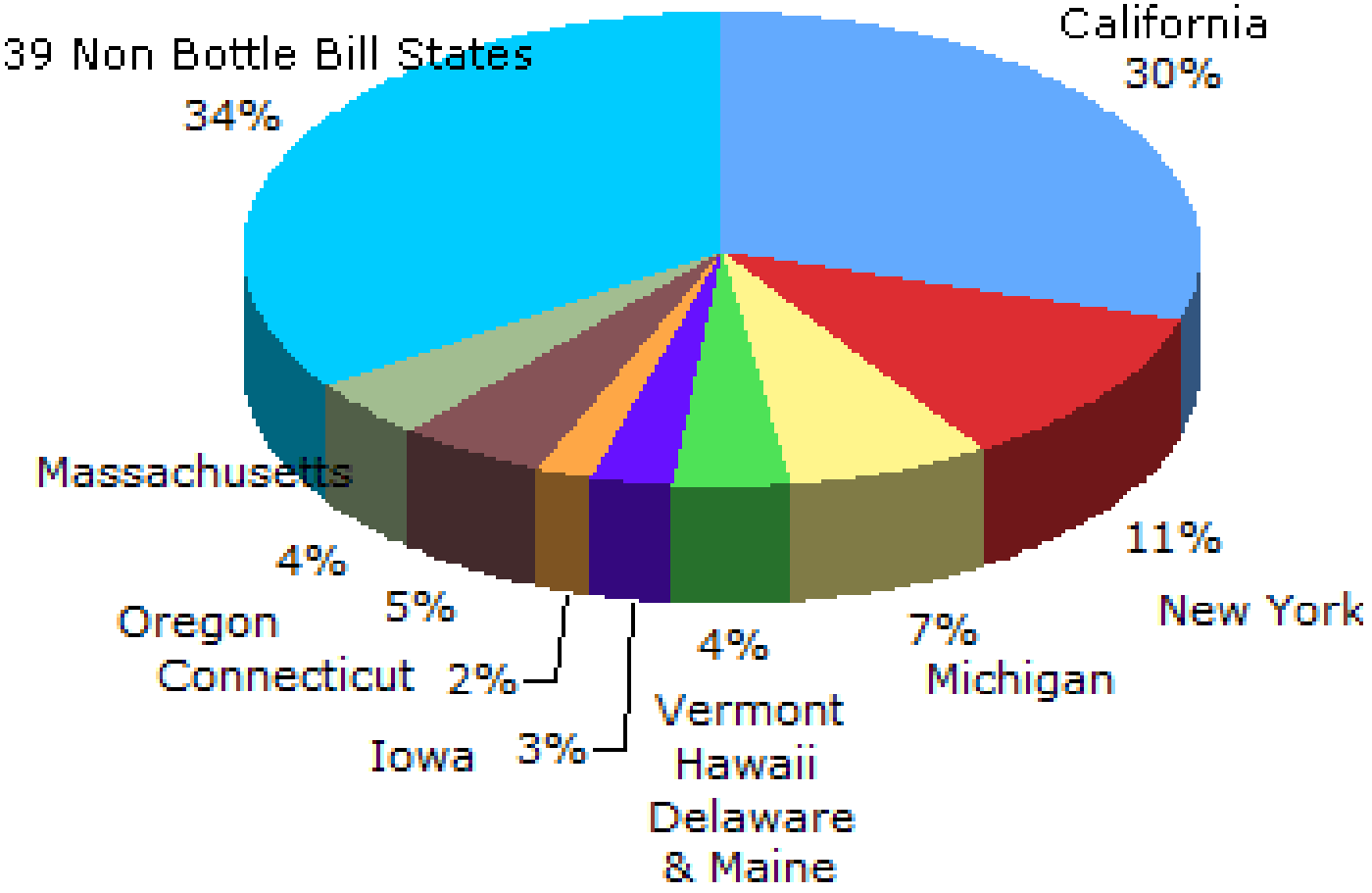
Figure 19. States With Bottle Deposit Rules

Source: Container Recycling Institute, 2011.

Beverage Container Redemption Rates in Selected Deposit States, vs. the U.S. Average

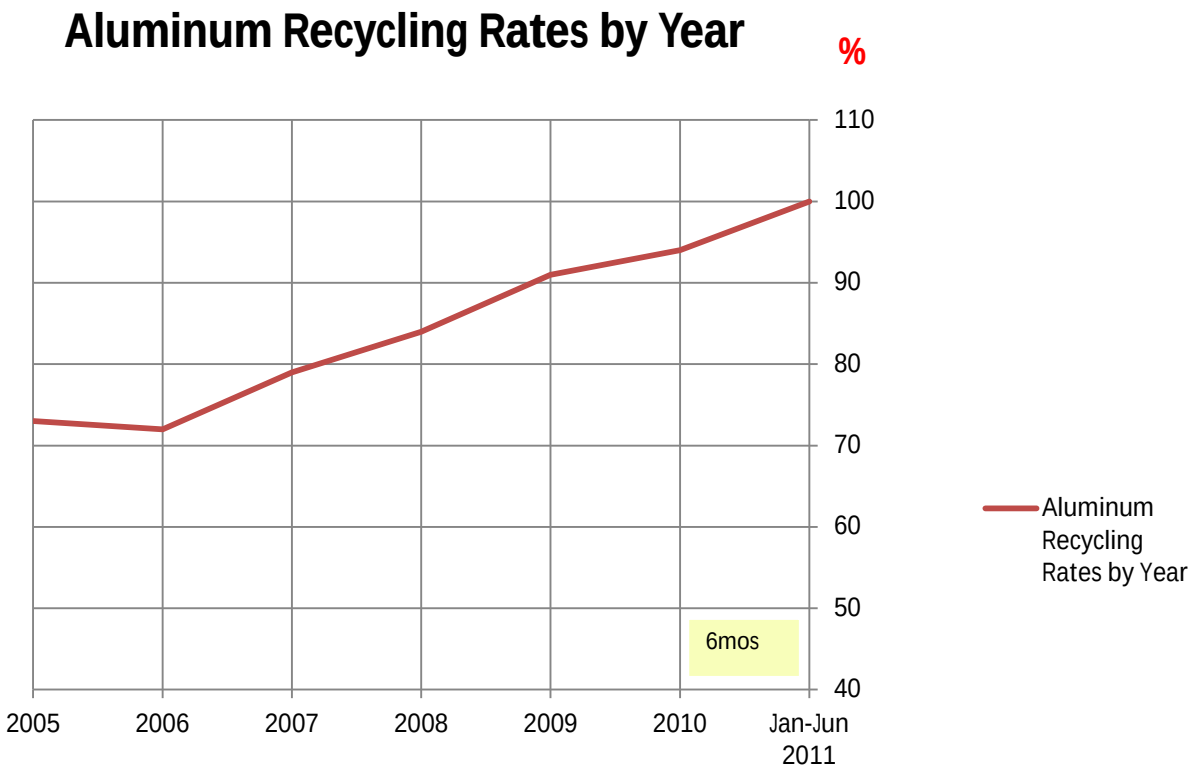


Recovered PET Beverage Bottles By State, 2007



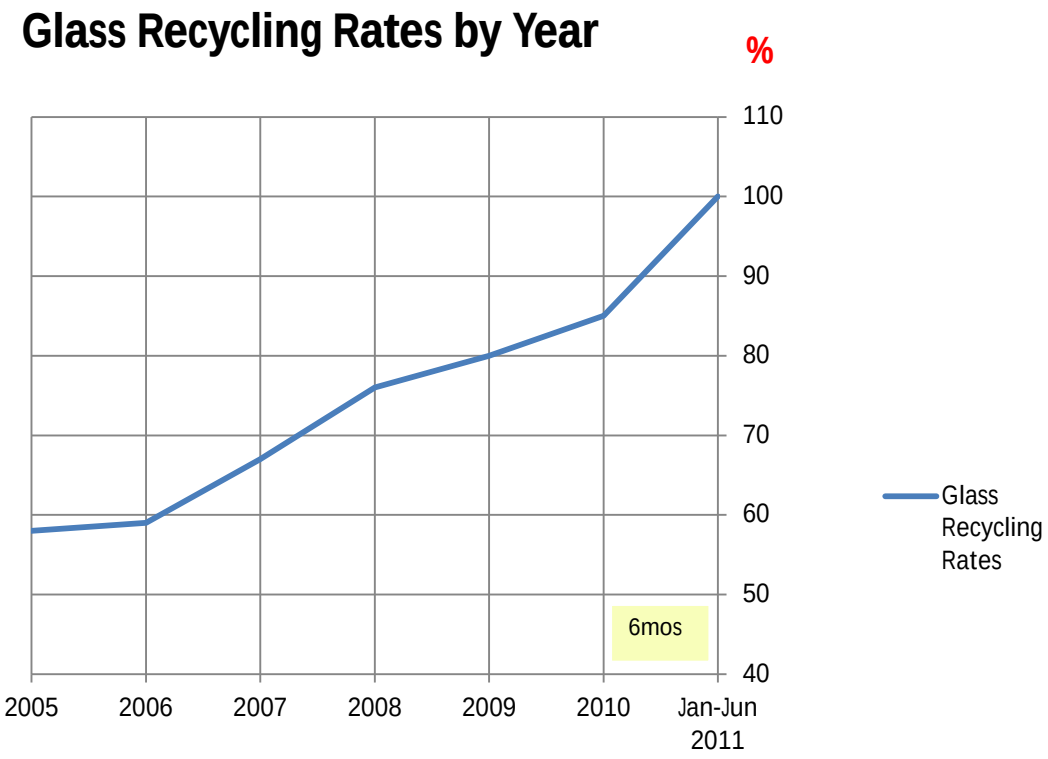
http://www.container-recycling.org/images/graphs/plastic/PETrec-bystate-07.png

Calif. Aluminum Recycling



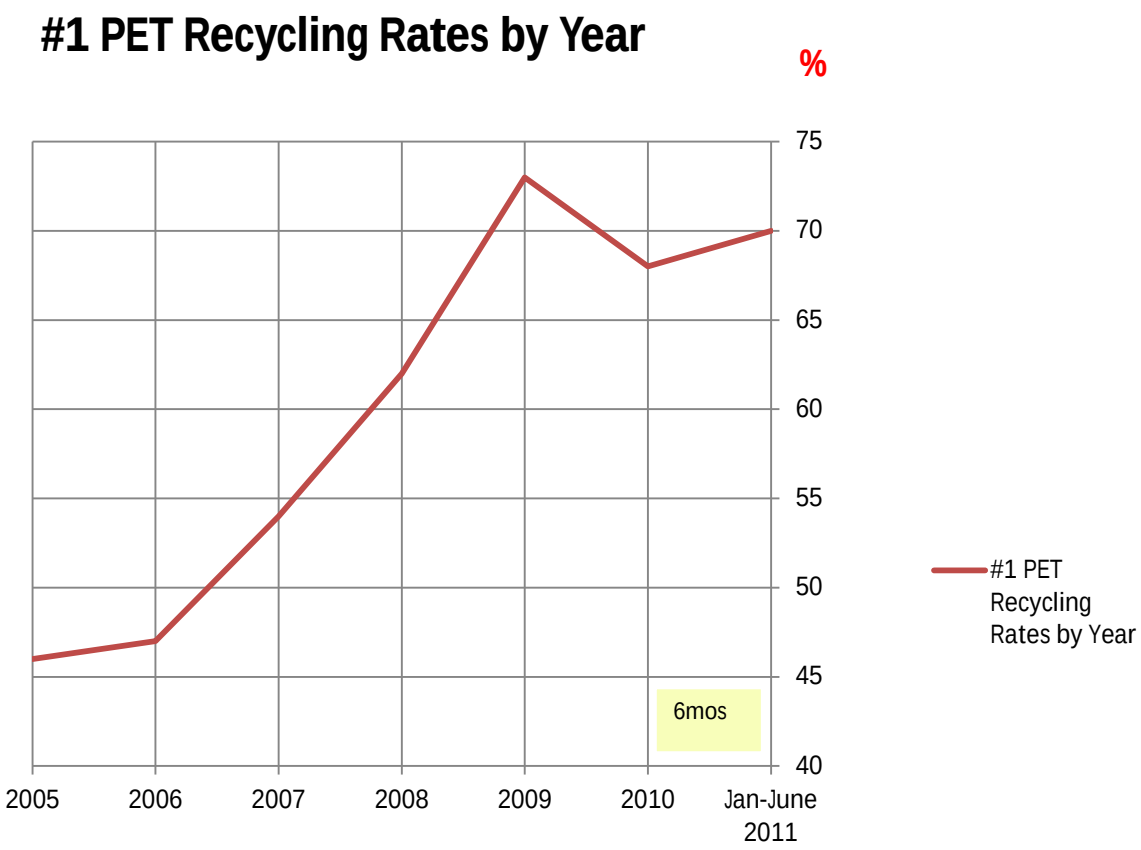
From: http://www.calrecycle.ca.gov/bevcontainer/Rates/BiannualRpt/12MonPeriod.htm

Calif. Glass Recycling Rates



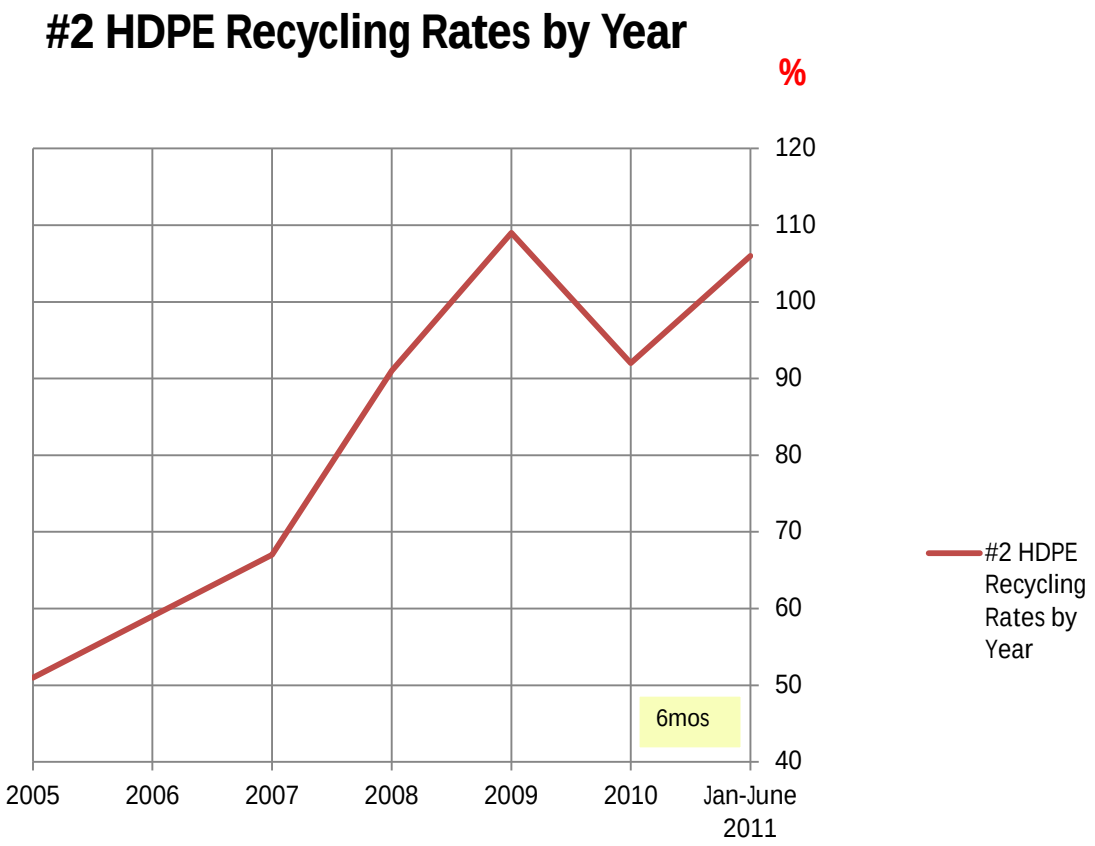
From: http://www.calrecycle.ca.gov/bevcontainer/Rates/BiannualRpt/12MonPeriod.htm

PET #1 bottle Recylcing rates



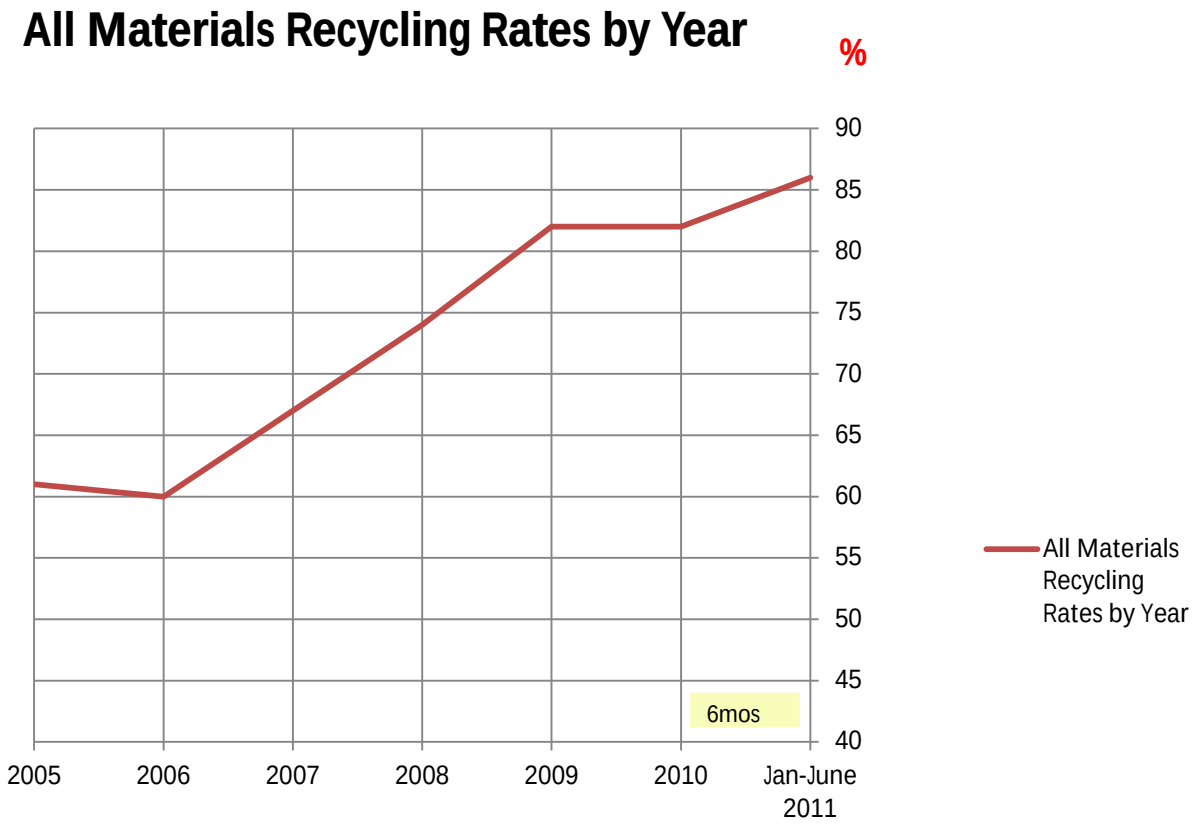
From: http://www.calrecycle.ca.gov/bevcontainer/Rates/BiannualRpt/12MonPeriod.htm

HDPE #2 Recycling rates



From: http://www.calrecycle.ca.gov/bevcontainer/Rates/BiannualRpt/12MonPeriod.htm

Calif. All Materials CRV recycling rates



From: http://www.calrecycle.ca.gov/bevcontainer/Rates/BiannualRpt/12MonPeriod.htm

Extended Producer Responsibility

(EPR) is the extension of the responsibility of producers for the environmental impacts of their products and packaging to the entire product life cycle -- and especially for their take-back, recycling, and disposal. EPR is based on the 'polluter pays for true costs' principle.

The Message to Industry:

- If we can't **reuse it**, **recycle it** or **compost it**,
- **Industry shouldn't be making it.**
- We need better industrial design for the 21st Century

Responsible Packaging Guidelines' Three Legs

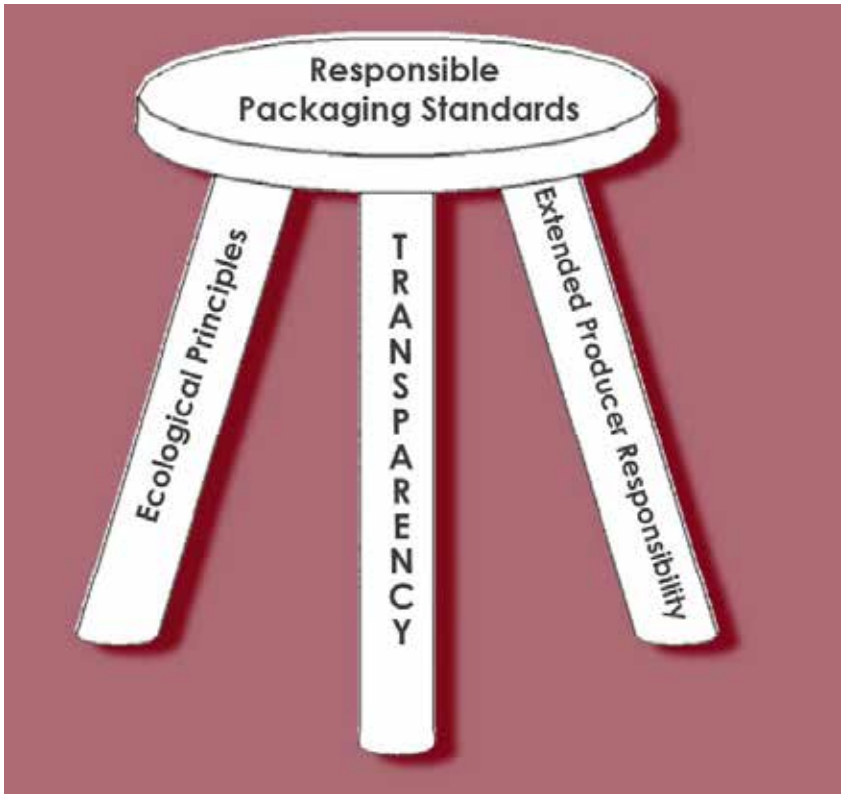
There are three legs to the dialogue concerning Packaging Standards:

1. **Transparency** of content and process in determining these standards, and which materials and inputs are preferred.

2. **Extended Producer Responsibility** (EPR) -- a strategy designed to promote the integration of environmental costs associated with products throughout their life cycles into the market price of the products

3. **Ecological Principles** drive the definition of "what is". e.g. either recyclable as a **technical nutrient,** or compostable as a **biological nutrient.**

Responsible Packaging Standards' Three Legs



Nutrient Cycles:
Key Ecological Principle

Cradle to Cradle Design distinguishes between two types of products depending on their behavior during use:

- Products of Consumption
- Products of Service

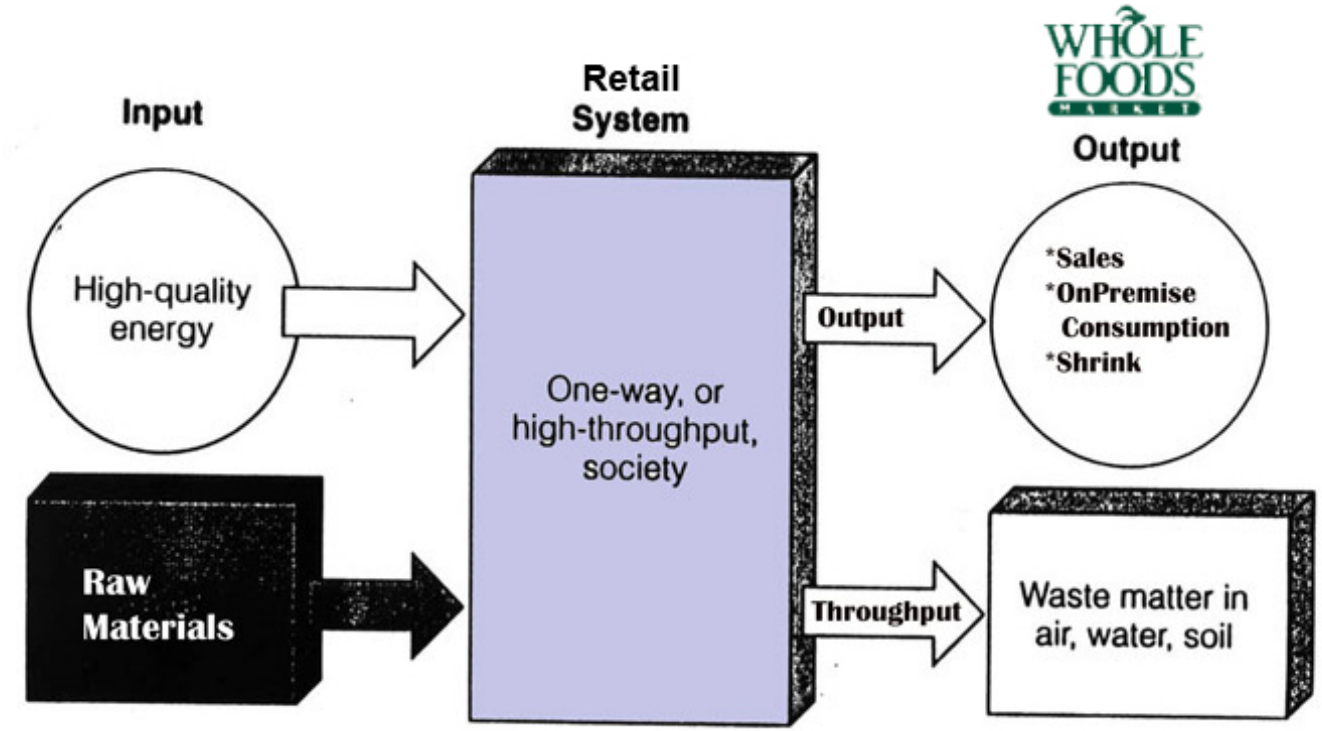
http://www.epea.com/english/cradle_methodology/nutrientcycles.htm

Bill McDonough

- “There are two fundamental frameworks for metabolism: biological and technical nutrients. So we ask a company, ‘Are your materials safe and healthy for human and ecological systems? Do you have reverse logistics – do we know where this stuff comes from, where it goes, and how to get it back and it onto closed, zero-waste cycles?’ ”

Input Output Throughput

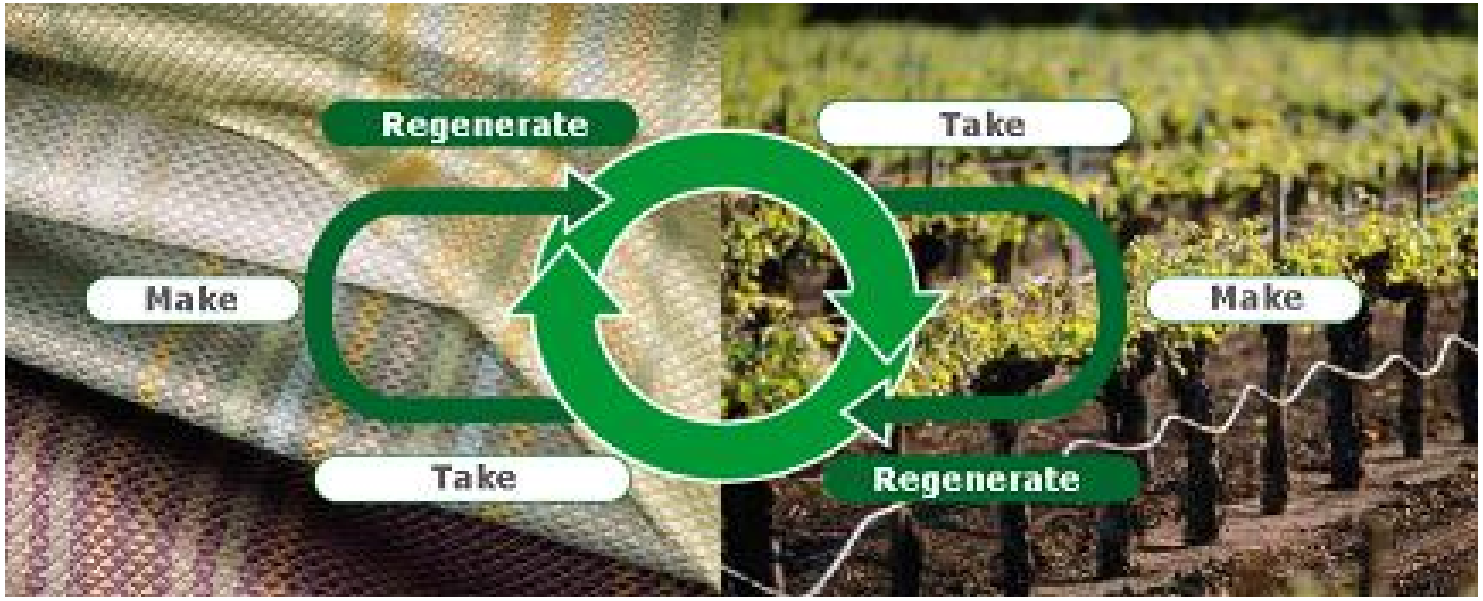
All stores and facilities have energy and material input, output and throughput (often what we call “waste”).



Waste matter in air, water and soil needs to be food for something!

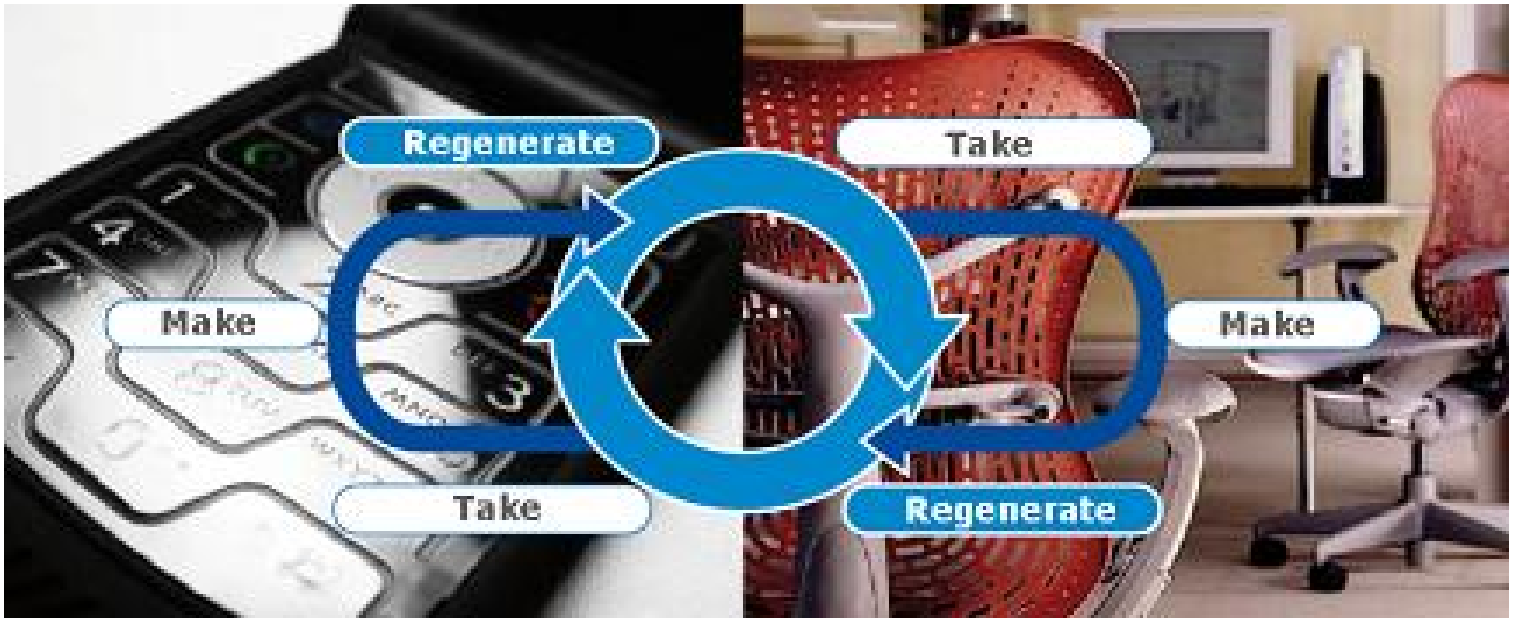
Products of Consumption are Biological Nutrients in the Biological Cycle.

(e.g. compostables become soil amendment)



Products of Service are Technical Nutrients in the Technical Cycle

For example, plastics, glass, and metals



Wood / Paper Fiber
(biological nutrients)

NO GMO crop source for bio-based (green cell) anything~

Preferred Materials:

- Highest recycled content without compromising required strength and quality
- Virgin-wood fibers certified by an independent,
- Third-party sustainable forestry organization.
- Corrugated constructed with wax replacement materials
- When these materials are used in packaging they
- should be composed of high recycled content.

Wood / Paper Fiber
(biological nutrients)

Transition away from Materials:

- Reduce usage of hazardous chlorine compounds
- Wax Impregnated Medium, Curtain Coated Corrugated, Cascade Boxes

Obsolete Materials: (no new packaging allowed that contain any % of these materials; these materials must be eliminated from your packaging and ingredient supply chain by (SET A DATE))

- No ancient or protected forested materials
- No Chemicals / Heavy Metals / Toxins or Pesticides (but not limited to) that are known to have negative impact to life or the environment

Aluminum, Steel and Glass
(technical nutrients)

Highest recycled content without compromising required strength and quality.

DEVELOP bioregional recycling infrastructure: at least 30 to 50 recycling materials centers in North America for these technical nutrients. SET GOAL of 80% recycling rate, then 90% , etc.

Recreate reusable / refillable glass packaging schemes for products that people prefer in glass (e.g. Wine, microbrews).

Fossil-based Plastics
(technical nutrients)

Preferred Materials:
(Highest recycled content without compromising required strength and quality)

- High-Density Polyethylene (HDPE) #2 rigid & film Recycled (rHDPE) #2
- Low-Density Polyethylene (LDPE) #4 film Recycled (rLDPE) #4 film
- Polyethylene Teraphthalate (PET) #1 rigid Recycled (rPET) #1
- Polypropylene (PP) #5 rigid Recycled (rPP) #5

DEVELOP bioregional recycling infrastructure: at least 200 recycling materials centers in North America for these technical nutrients. SET GOAL of 50% recycling rate, then 80%, etc.

Create reusable / refillable packaging schemes for products that people prefer in these plastics.

Fossil-based Plastics
(technical nutrients)

Obsolete Materials:
(no new packaging allowed that contain any % of these materials; these materials must be eliminated from your packaging and ingredient supply chain by (SET A DATE)))

- Polyvinyl Chloride (PVC) #3 film and rigid
- Polyurethanes (PU)
- Polystyrene (PS) #6 film and rigid
- Acrylonitrile Butadiene Styrene (ABS)
- Polycarbonates (PC) #7 film and rigid
- Acrylic
- Ethylene Vinyl Acetate (EVA)

BioBased Materials

(such as non-tree fiber or green-cell-based plastics)

NO GMO crop source for bio-based (green cell) anything

Biobased material(s) are organic material(s) in which the carbon comes from contemporary (non-fossil) biological sources.

Biobased content is the amount of biobased carbon in the material or product as a fraction weight (mass) or percent weight (mass) of the total organic carbon in the material or product. ASTM Method D6866-05 is the US government approved method for determining the renewable/biobased content of biobased products.

BioBased Materials

(such as non-tree fiber or green-cell-based plastics)

For Bio-based Materials Guidelines, see:
http://www.sustainablebiomaterials.org/docs/SBCGuidelines%20070625-2.pdf

At the end of the product's life, the product/package must be:
certified and labeled "compostable" by an acceptable certification organization or program:

- Biodegradable Products Institute (North America);
- AIB Vincotte Inter (Belgium);
- Japan Bioplastics Association (Japan);
- DIN CERTCO (European Union); or
- Any other third-party certification program that meets at a minimum the ASTM D6400 criteria or equivalent . The product must meet all aspects of D6400

BioBased Materials
(such as non-tree fiber or green-cell-based plastics)

Bioplastics examples:

- Starch based plastics
- Polylactide acid (PLA) plastics
- Poly-3-hydroxybutyrate (PHB)
- Polyamide 11 (PA 11)

- <u>Non-tree fiber sources examples:</u>
- Begasse (sugar cane)
- Bulrush
- Hemp

Packaging Claims Standard : FTC Guidelines are the Baseline Minimum

For the federal government perspective, try the FTC Environmental Guidelines

http://www.ftc.gov/bcp/conline/edcams/eande/index.html

Packaging Claims Standard : FTC Guidelines are the Baseline Minimum

How can one be sure that stated environmental claims are actually true?

Manufacturers have been known to make misleading, trivial, irrelevant and false statements on packaging. Statements like "biodegradable" or "contains recycled content" or "earth friendly" are so vague as to have no practical meaning.

The more specific a claim, the easier it is verify.

Non-authentic (vague), or non-third-party-verified, claims are to be avoided. This is true whether the claims are on the package, or used in marketing collateral, or advertising.

Packaging Claims Standard : FTC Guidelines are the Baseline Minimum

The FTC seeks to prevent false or misleading marketing claims, including environmental or "green claims." The FTC's Environmental Marketing Guides, also called the "Green Guides," apply to all forms of marketing for products and services: advertisements, labels, package inserts, promotional materials, words, symbols, logos, product brand names and marketing on the Internet or via email.

These web pages are designed to help consumers and businesses understand the FTC's Environmental Marketing Guides, and learn about other environmental and energy areas of concern to the FTC:

FTC Green Guides Review
http://www.ftc.gov/bcp/edu/microsites/energy/about_guides.shtml

"Less bad" packaging claims are likely to be under greater consumer scrutiny .

Actual chapter title in Cradle to Cradle is “Less Bad is not Good.”

60% bar for any recovery, next-life, claim:

With the claim of "recyclable" or "compostable":

> Is this true 60% of time the consumer has to "recycle" or "compost" that package?
>
> Do they have reasonable (easy) access to a system of recovery and reprocess for that claim to be actualized?

Claims of "recyclable" and/or "compostable" should be true, at minimum, 60% of time to be claimed.

R. Buckminster Fuller

- “You never change things by fighting the existing reality.
- To change something, build a new model that makes the existing model obsolete.”

We all have the choice.