

Solid Waste Management

What is solid waste?

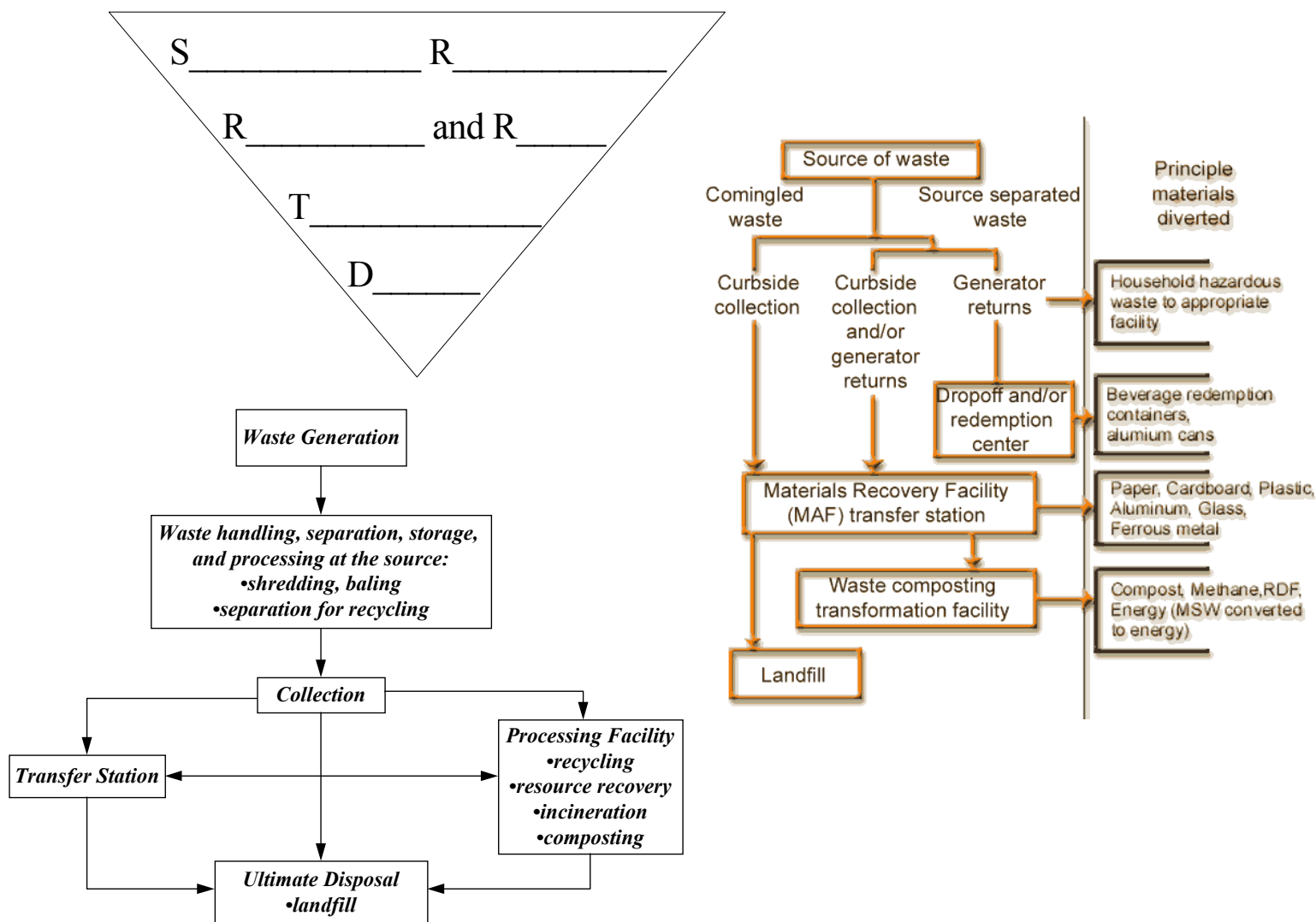
-all wastes from human and animal activities that are normally s_____ or s_____ -
s_____ and are d _____ (includes municipal, industrial, and
 hazardous wastes).

What is solid waste management?

-activities involved with the reduction of g_____, c_____, s_____,
 t_____, p_____, and d_____ of solid wastes.

- solid waste management concerns public h_____, e_____,
 e_____, conservation, aesthetics, and other environmental considerations.

What is integrated solid waste management? Activities designed to meet the hierarchy of
 MSW management objectives:



Quantities of solid waste produced:

- total production is approximately = _____ million tons
- average solid waste generated per person = _____ lbs/day
- total production = _____ tons/day
- density = _____ lbs/yd³
- if placed in 3 foot layer, it would cover _____ sq. yds. _____ sq. miles
- if placed in 1 cu. ft. stacks, it would rise _____ miles high

Other facts:

- More than _____ communities in North America now charge residents for the amount of solid waste they set at the curb - as opposed to a flat-rate or tax-funded system.
- Every day _____ light bulbs and _____ tubes of toothpaste are discarded
- Curbside recycling service is provided to at least 108 million people or 41% of U.S. households.
- Every day _____ tons of aquarium gravel are purchased.
- More than _____ million tons of steel were recycled from cars in 1994, about one fifth of all the steel recycled.
- Paper recovered from U.S. municipal solid waste d _____ between 1985 and 1993.
- More than _____ % of oil filters sold in the U.S. are being recycled. Used oil filters were first recycled at a steel mill in Southern California just over four years ago.
- Prior to 1990, there were only _____ composting facilities operating in Canada. Today there are over 158 facilities operating with over twenty more in the planning stages.
- California has mandated that all cities must compost yard trimmings to divert solid waste from landfills. At the '96 summer Olympics an estimated _____ tons of solid waste and recyclables was generated.
- Americans spend over _____ annually on batteries.
- 174.5 million (69%) of the 253 million tires that became scrap in 1995 were recovered, an increase of 26% from 1994. As recently as 1990, market demand for scrap tires was a mere 11 percent of the total number generated annually.
- Led by new facilities to produce recovered paper and paperboard, a 2.5% annual expansion in total U.S. papermaking capacity is forecasted, according to the American Forest and Paper Association.
- The s _____ c _____ is the most recycled package in Florida.
- Each year in the U.S., _____ million railroad ties need to be replaced.
- After a car is shredded, the fabric, plastic, and rubber ends up in a sanitary landfill.
- In 1994, an estimated _____ million tires were marketed as tire derived fuel (TDF) burned by power plants, cement kilns, paper mills, and dedicated tire to energy facilities.
- _____ billion aluminum cans were returned in 1994, w/ recycling rate up to a record 65.4%.
- Some 2.5 to 3 billion used tires are stored in the U.S. and 200-300 million more are added each year.
- A survey of recycling rates internationally found that Finland leads with 35% diversion, followed by Germany at 33% and Austria at 28%. The U.S. is fourth with a 22% recycling rate. Japan logged the lowest rate at 3.9%.
- China generates _____ million tons of waste per year, of which it recycles very little.
- The American Forest and Paper Association says recycled materials constitute _____ % of the nation's newsprint.
- It costs more to advertise and sell a box of brand-name cereal than to manufacture it.
- Twenty-one states have banned or plan to ban appliances from landfills.
- Recycling is a significant industry in NC, supporting close to _____ jobs or 0.27% of the state's total employment.
- BMW is paying good money for old BMW hulks and hopes to increase the percentage of recycled car weight from the present 75% to over 90%. From *Environmental Engineering News*, John M. Bell Editor, Purdue University



