

## Lincoln-Lancaster County Health Department 1996 Hazardous Household Waste Collection

**Reminder:** These collections are for **households** only; not for businesses. Only residents of Lincoln and Lancaster County can bring items to collections.

Date	Location	Time
Saturday, June 1	State Fair Park, parking lot northwest of Ag Hall	9:00 a.m.-3:00 p.m.
Saturday, July 27	Nebraska Wesleyan University, parking lot, 56th & Huntington Streets	9:00 a.m.-3:00 p.m.
Saturday, September 21	Lincoln-Lancaster County Health Department, 3140 N Street, south parking lot	9:00 a.m.-3:00 p.m.
Saturday, November 2	State Fair Park, 4-H Youth Complex	9:00 a.m.-3:00 p.m.

### Household Hazardous Waste Collection will take:

**Pesticides**—Weed killers, garden sprays, wood preservatives, roach powder, pet flea and tick products, rat poisons, etc.

**Items Containing PCBs**—Ballasts from old fluorescent lamps and small capacitors from old appliances including radios, motors, and televisions.

**Solvents**—Mineral spirits, turpentine, paint strippers and thinners, varnishes, stains, polishes, and waxes.

**Heavy Metals**—Wastes containing mercury such as thermometers and fluorescent bulbs. (Most batteries can now be recycled locally.)

Keep products in the original container and keep the label intact. If the label is already destroyed or unreadable, label the products to the best of your knowledge. Open, leaking or rusted containers should be placed in a clear plastic bag during transport to a collection. Do not mix chemicals!

### Do Not Bring

Latex Paint	Antifreeze
Medicines	Used Oil
Fertilizers	General Household Trash or Business Waste
Explosives and Ammunition	Alkaline, Carbon-zinc, Zinc-air and Vehicle Batteries

If you have questions on how to dispose of these items, call the Lincoln-Lancaster County Health Department, 441-8040. (LB)

## Lead poses danger to children

One out of every 11 American children has high levels of lead in his or her bloodstream—levels that can cause lead poisoning.

In children, lead poisoning can result in hyperactivity, slowed growth, brain and nervous system damage, headaches, and hearing problems.

Although serious, the situation is not difficult to remedy.

A major cause of lead poisoning is lead-based paint. Although banned from housing in 1978, lead-based paint is present in older dwellings. People who think lead-based paint might be present in their homes may call the National

Lead Information Center (800-LEAD-FYI) or look under "lead" in the phone book for a qualified professional who can identify hazards and provide a risk assessment of any lead found. Well-maintained, lead-based paint probably is not a problem; however, it should be removed or contained if it is peeling, chipped or chalky.

To keep lead-based paint in good condition and reduce related health risks, clean surfaces weekly with a sponge or mop, warm water, and an all-purpose or specialized cleaner. Wash all sponges and mops thoroughly after using them on lead-based paint.

Finally, make sure children's hands are clean—especially at mealtimes and bedtime. Clean play areas, toys and pacifiers regularly to remove any lead dust. Feed children a low fat, high iron and high calcium diet; this will help their bodies absorb less lead.

The federal government offers a booklet to help identify lead hazards. "Protect Your Family from Lead in Your Home" (Item 338C—50 cents) may be obtained by sending a check or money order (payable to the Superintendent of Documents) to Consumer Information Center, Department 338C, Pueblo, CO 81009. (WS)

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## U.S. solid waste trend

In 1993, 207 million tons (4.4 pounds per person per day) of municipal solid waste were generated. After materials were recovered for recycling and composting, discards were 3.4 pounds per person per day—virtually all of which was combusted or sent to landfills.

Recovered materials for recycling and composting were estimated to be 22 percent of municipal solid waste generated in 1993 (up from 17 percent in 1990) continuing the impressive growth of recent generation, and the remaining 62 percent of the municipal solid waste stream was sent to landfills or otherwise disposed.

Between 1990 and 1993, recovery of materials for

recycling and composting increased from 33 million tons to 45 million tons—an increase of 37 percent. Recovery of paper and paperboard accounted for over half of this increased tonnage. Yard trimmings for composting contributed the next largest increase in tonnage recovered.

The percentage of discarded waste continues to decline due to increased levels of recovery for recycling and composting. In 1985, 83 percent of the municipal solid waste was landfilled compared to 62 percent landfilled in 1993. Even with this reduction, landfilling continues to be the single most predominant waste management method into the year 2000. (DJ)



## Environmental Focus

## Water can be treated to remove contaminants

The U.S. environment seems so vast and unlimited that it is easy to take it for granted. In some places, groundwater has become contaminated from industrial operations, agricultural activities, municipal and household sources. Among the most frequently occurring contaminants in groundwater are pesticides, heavy metals, gasoline, nitrates and solvents. Some water has bacterial contaminants—like coliform bacteria and viruses.

When groundwater becomes contaminated, what can be done to restore it? Fortunately, groundwater often can be treated to remove contaminants. However, groundwater treatment depends on what contaminants you are trying to remove. A variety of groundwater treatments exist; they include aeration, filtration, granular activated carbon treatment, chlorination, softening and reverse osmosis.

**Aeration** is the process of exposing water to air to remove undesirable gases such as free carbon dioxide, hydrogen sulfide, volatile organics (VOCs) and methane. This method can also be used to remove iron or manganese. The two most common aeration methods are the introduction of air into water or the reverse, water into air.

**Filtration** is effective for removing suspended matter from water. There are two types of filters commonly used for this method—gravity and pressure filters. For filtration to be effective, it may require the addition of chemicals (such as alum) to coagulate silt and microbes into filterable size particles.

**Granular Activated Carbon Treatment** is effective for reducing or removing organic chemicals, taste and odor problems, and some pesticides. A carbon material is heated to high temperatures to make it more porous and increase its adsorbency. This effect causes contaminants to become affixed to the carbon. This treatment is very expensive.

**Chlorination** disinfects water that has been contaminated

by bacteria. It can also be used to control unpleasant tastes and odors.

**Softening** is a treatment that is used to soften hard water, that results when calcium and magnesium salts are present. Hardness causes soap to curdle and excessive scale deposits in plumbing and water heaters. Two types of hardness exist: carbonate and noncarbonate. Carbonate hardness occurs when water contains calcium or magnesium bicarbonate. This type of hardness is temporary because boiling the water removes the hardness.

Noncarbonate hardness is permanent and refers to calcium and magnesium associated with sulfates, chlorides and nitrates. Hard water can be softened by:

- a chemical precipitation with lime alone or lime and soda ash or
- sodium cycle ion exchange process. In this process, hardness ions are exchanged with the more soluble sodium ions, creating soft water. This method may also remove other dissolved ions like iron, manganese and zinc.

**The Reverse Osmosis Process** forces water through a semi-permeable membrane, that excludes most dissolved minerals. This process may also be effective for removing some pesticides. The effectiveness of this process depends on the membrane's ability to reject these ions. Whether ions are excluded depends on the molecular weight of a particular ion, the total dissolved solids and the pressure difference across the membrane. Pretreatment is necessary to prevent the membrane from clogging. An important thing to remember about this method is that it will remove most ions—but not all of them.

Other treatments include ultraviolet (UV) light disinfection and distillations. Exposing water to UV light kills disease-causing bacteria present in the water. Distillation works well for turbidity, taste, odor, lead and other heavy metals. Source: On Tap (BPO)

## Waste reduction: A two-tiered effort

Waste reduction means cutting down on the amount of materials or energy used during the manufacture, distribution, purchase and use of the product. Waste reduction is an effort in which both manufacturers and consumers have important roles to play.

Cleaning product manufacturers are cutting down on waste before it starts with the following product and package innovations.

• **Concentrates:** Sometimes known as "ultras," they deliver the same cleaning performance

as traditional versions and use less product.

• **Refill containers:** Use less packaging material than primary containers. Usually do not include convenience features like trigger sprayers or measuring caps.

• **Recycled content:** By using 25-100 percent recycled plastic in product bottles, cleaning product manufacturers are providing an important market for the plastic containers that consumers are recycling. Boxes are also made of up to 100 percent recycled materials.

• **Recyclable materials:** Containers that can be recycled and made into other products. One can practice waste reduction by Shopping S.M.A.R.T. (Save Money and Reduce Trash) when you purchase cleaning supplies. Also, follow good waste reduction practices during and after use of products.

- Buy the right product for the job at hand.
- Buy only what you can use in a reasonable length of time.
- Follow label directions: more is not necessarily better. (LB)