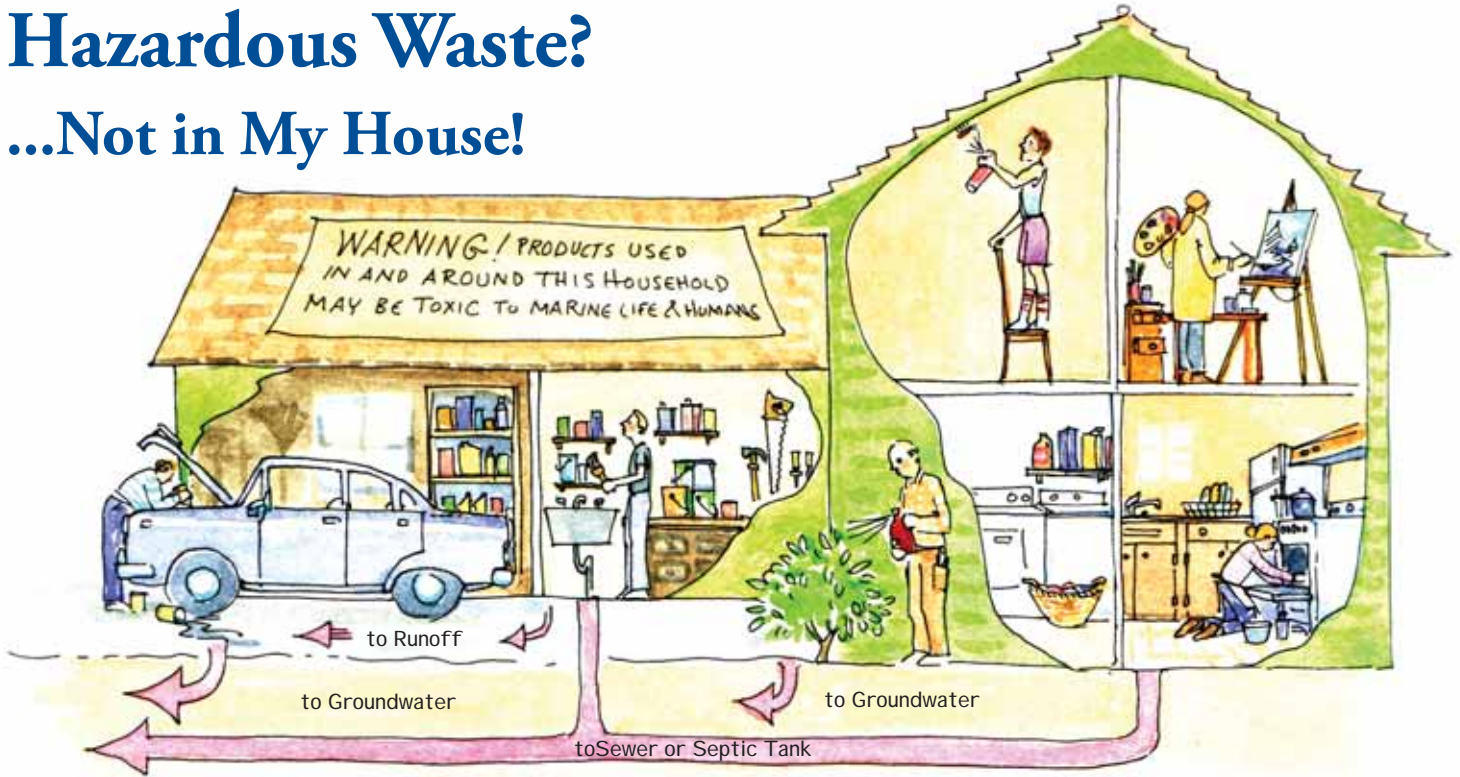


Hazardous Waste?

...Not in My House!



Thousands of common household products contain toxic ingredients that should be kept out of our waters. If we bring hazardous products into our homes, it is our responsibility to use, store, and dispose of them safely.

Never pour toxic materials down your drain. They will flow into your septic tank where they can destroy essential bacteria and pass into the groundwater that supplies our drinking water. If buried in the ground or dumped into storm drains, the toxins may flow straight into our creeks, ponds or bays.

To help us dispose of these substances, the Barnstable County Department of Health and the Environment holds special hazardous waste collection days once or twice a year. The waste is then shipped off-Cape to an approved disposal site. Don't hesitate to call them for scheduled collection dates.

If you are unsure of how to dispose of any material found around your home, phone the Massachusetts Environmental Protection Agency's Household Hazardous Products Hotline.

Remember, many houses are already located in flood zones or low-lying areas prone to flooding. In a major storm event, if these buildings are flooded, the toxic and harmful substances (including household cleaners) will enter the bays. If you live in one of these areas, take extra precautions to keep all toxic or harmful materials out of harm's way - in secure cabinets high above any potential floodwaters.



Household Cleaners



Most soaps and detergents are meant to be washed down the drain. They are biodegradable and, if the wastewater from your home is properly treated, they pose no problem to the environment. Other household cleaners are a different story. Most drain openers, oven and toilet bowl cleaners, and bleach are poisonous. Furniture polish and spot removers are flammable, and ammonia-based cleansers and disinfectants contain strong chemicals which may be harmful.

Read the labels of products in your cleaning closet. Do they contain such toxic components as *lye, phenols, petroleum distillates, chloride and dichlorobenzene?* Note

also the words *danger, warning, toxic, corrosive, flammable, or poison.* These identify products that may contain hazardous materials.



Use and store these substances carefully. Keep them in their original containers. Do not remove their labels. Never mix them with other products. Incompatible products might react, ignite, or explode. Corroding



containers require special handling. Call your town's board of health or fire department for instructions on transporting these safely to a hazardous waste disposal site.

Chlorine is such a common ingredient in household cleaners that many people are surprised to learn that it is highly toxic. Chlorine is corrosive and a strong irritant to the lungs and mucous membranes. Chlorine-based cleaning products can also destroy essential bacteria in septic tanks, eventually causing system failures. Chlorine can also combine with other materials present in the home and environment to form new toxic substances. NEVER mix chlorine (or products that contain chlorine) with ammonia products; the resulting chemical reaction creates a poisonous gas that can be fatal.

Phosphates may boost cleaning power but, in bodies of fresh water, they act as a fertilizer, stimulating excessive plant growth. Ultimately this growth reduces oxygen available to support other aquatic life forms. Laundry detergents are now required to be phosphate-free. Currently dishwasher detergents are not required to be phosphate-free but some are. When you shop, read the labels and try to buy only phosphate-free products.

Fluorescent whitening agents, also known as optical brighteners, are ultraviolet dyes contained in many laundry detergents that make fabrics seem brighter and whiter. These brighteners are toxic to fish and other aquatic life and are extremely slow to biodegrade. Laundry product manufacturers are not required to list individual ingredients, so choose one that does not boast a brightening feature.



Disposal

Avoid dumping cleaners or wash water down your drain. Instead dilute well with water and toss onto a gravel driveway or around deep-rooted plants to be absorbed slowly. If you must put it down the drain, flush with PLENTY of water. Then start fresh with a nontoxic, inexpensive alternative. For more suggestions on disposal, call the Massachusetts EPA Household Hazardous Products Hotline.

CONTAINS NO PHOSPHORUS



Disposal

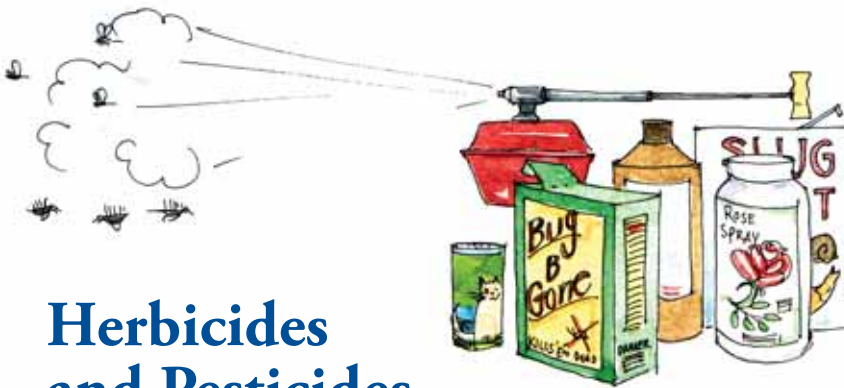
Solvents and oil-based paints should never be incinerated or put down any drain, sewer or septic system. Bring oil-based paint to a hazardous waste collection or use it up on a basement wall or inside a closet. Give away partly filled cans - they make a good freebie at garage sales! To dispose of latex paints, just take the lid off the can and let the liquid evaporate. Or fill it with kitty litter and put the dried solids in your regular trash. You can also dry it by painting a piece of plywood, and peeling it off and disposing of dried paint; latex paint can go in the regular garbage, but oil-based should go to the hazardous waste collection. Set aside used paint thinner in a closed jar until the paint particles settle out, then pour off the clear liquid and reuse. When the remaining paint sludge is dry, wrap it in plastic for hazardous waste disposal. The Orleans Transfer Station accepts paints from April-October on the second Saturday of each month.

Solvents and Paints

Oil-based paints and preservatives, paint thinners and removers, rust removers, furniture strippers and even nail polish and polish remover are highly toxic to aquatic life and can contaminate groundwater.

Alternatives

Choose latex paints instead of oil-based. Latex cleans up with soap and water and does not require thinner. Use whitewash – a nontoxic mixture of limestone, milk, and linseed oil – for fences, barns and basements. Buy unused paint from garage sales. Use a citrus-based solvent to clean up oil paint and brushes. Look for citrus-based removers. They work well without the fumes and don't require hazardous waste disposal.



Herbicides and Pesticides

Pesticides can harm more than just the pest you're after; they often kill the natural predators that keep them in check.

Use Special Care With:

- mothballs
- flea powders
- pet shampoos
- slug bait
- wood preservatives
- weed killers

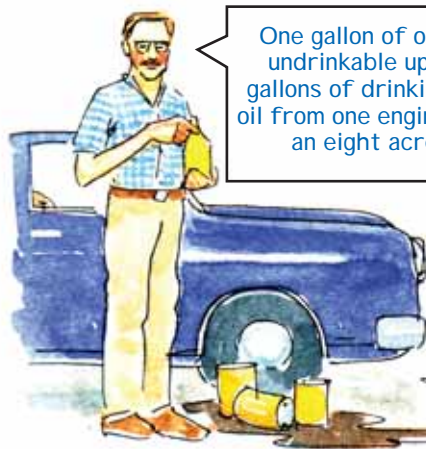
Since many of these compounds are especially harmful to fish and other aquatic creatures, they are not approved for use near water. Choose traps over sprays for household insects. For pet care, buy ecologically responsible brands of products. You'll find more on disposal and alternatives to pesticides and herbicides in Chapter 8, the landscaping section of this booklet.



Car Care Products

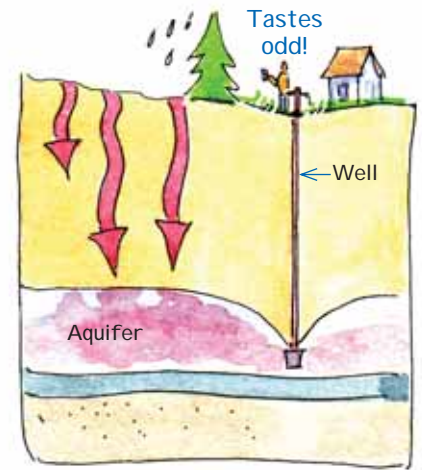


Our vehicles require a lot of toxic chemicals to run and to be maintained; nontoxic alternatives are far in the future. **Never dispose of these substances yourself.** When these fluids are poured on the ground or down storm drains they flow directly into our waters. When put into the trash, they can contaminate groundwater. The archaic practice of applying oil to dirt roads for dust control



One gallon of oil can render undrinkable up to a million gallons of drinking water. The oil from one engine can produce an eight acre oil slick.

results in over 90% of the oil being carried off the road surface into the environment on dust particles and rain-water runoff.



Keep your car and other motorized equipment in good running order. Fix leaks promptly. When washing or servicing your car, park on grass or gravel. Use soap and water rather than detergents, and use a bucket or pistol-grip nozzle to minimize runoff into storm drains.



Disposal

Store your car care products - separately, not mixed - in sturdy, lidded containers, out of the reach of children. Dispose of them at a hazardous waste collection. Return used car batteries to the Orleans Transfer Station. Waste oil can be disposed of at the Orleans Transfer Station. Call the State EPA motor oil info line for more information.

Other Car Care Products

Treat antifreeze as hazardous waste. It contains ethylene glycol, which is poisonous to wildlife and people. Many cats and dogs have died after drinking the sweet-tasting puddles of antifreeze left on driveways. Buy an ecologically responsible brand for your car and boat. Winterize your plumbing with "plumber's antifreeze." It is made with propylene glycol and is non-toxic to your septic system.

Use Special Care With:

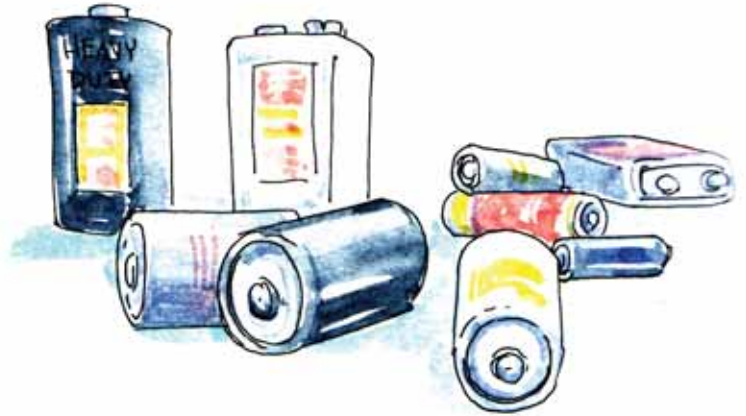
- antifreeze
- battery acid
- brake fluid
- degreasers
- engine cleaners
- gasoline and diesel
- liquid car wax
- motor oil
- radiator flushes
- rust preventatives

Items That Contain Heavy Metal

Use Special Care With:

computers
home thermometers
smoke detectors
televisions
energy-saving bulbs
fluorescent bulbs
mercury thermometers

Many common items in our homes contain heavy metals like mercury, cadmium, arsenic, and lead. These metals are dangerous, particularly to fetuses and children. They should also be treated as hazardous waste. Alkaline batteries can be disposed of in your regular trash but not the rechargeable or small button-type batteries, for example, those used in watches or hearing aids.



Bring them to the recycling area

at the local transfer station. Contact the National Recycling Technology Project for information on recycling your computer and other electronic equipment. Also, you can easily recycle your empty printer cartridges at your local office supply store or use the postpaid envelopes available at the local post office. Your local office supply store may also accept old printers, computers, monitors, laptops, and fax machines.



Above ground oil tanks are also a threat to groundwater. These tanks rust from the inside. Every year many tanks fail and leak into the underlying soil and groundwater. The costs of cleanups are staggering. If your tank shows signs of corrosion or is over twenty years old, it should be replaced with a new, safer stainless steel tank.

Well, what's a person to do?



Taking Action

Our household activities have a serious impact on water quality. Many of the products we find in our home are toxic, and the list keeps growing as more research is done.

- Become informed.
- Read labels so you know what you are buying and what the potential hazards are.
- Follow the directions on the label.
- Use the least toxic product you can find and buy only what you need.
- Never use more of the product than the manufacturer recommends.
- Dispose of your unwanted household hazardous materials properly. Check at the Orleans Transfer Station for alternative means or hazardous waste collection days.
- Use alternatives (see following page).

And Lastly... Consider walking, bicycling, car pooling, or taking the Cape's public transportation system.



Alternative Water-Kind Cleansers for your Home

“Make Your Own Non-Toxic Cleaning Kit!”

Assemble a few spray bottles, empty jars, and the basic ingredients: baking soda (for scouring and deodorizing), white vinegar (removes mildew, odors, bacteria, and scale from hard water), borax and washing soda (degreases, cleans), citrus solvent (cleans oils and grease, some stains), lemon juice (removes gums, tarnish and dirt), and lemon and tea tree oil (disinfectant). Any of the above ingredients can be safely mixed together.

Label clearly and store out of the reach of children.

Note: There are also many non-toxic commercial cleaners available on the market made with these same ingredients.

- All Purpose Cleanser:** Mix 1/4 cup white vinegar, 2 tsp borax and 1-2 tsp tea tree oil or lemon in 1 quart spray bottle of very hot water. Shake vigorously. Add more borax for disinfecting.
- Bleach:** Use oxygen bleaches, borax, or let the sun bleach your fabrics on an outdoor clothesline. Also try an old-fashioned bluing product to whiten whites.
- Carpet Stains:** Immediately apply club soda or equal parts white vinegar and water, blot dry, repeat, then clean with a brush or sponge using warm soapy water.
- Deodorizers:** In your refrigerator and other closed spaces, use an open box of baking soda. Sprinkle it on carpets and upholstery, wait 15 minutes, then vacuum. Simmer cinnamon and cloves, or place white vinegar in open dishes.
- Drain Cleaners:** Instead of chemical cleaners, use a plunger or a plumber’s “snake.” Then add 1/4 cup baking soda followed by 1/4 cup vinegar. Wait 15 minutes, and rinse with 2 quarts of boiling water. **Caution: do not use this method after trying a commercial drain opener – the vinegar can react with the chemicals to create dangerous fumes.**
- Dusting:** Use 1/4 cup white vinegar per quart of water and apply with a tightly wrung soft cloth. Or use a micro-fiber dusting cloth.
- Floor Cleaner:** Add 1/4 cup baking soda and 1/4 cup borax to hot mop water; rinse with 1/2 cup white vinegar in clear water. For vinyl floors, simply add 1 cup vinegar to mop water.
- Glass Cleaner:** Mix 2 Tbsp vinegar and 2 tsp lemon juice and 1 tsp liquid soap in 1 quart warm water. Shake well, spray on, then buff with crumpled newspapers.
- Metal Polish:** *Silver:* Line a pan with aluminum foil and fill with water; add 2 tsp each of baking soda and salt. Bring to a boil and immerse silver. Polish with soft cloth. *Brass or Bronze:* polish with a soft cloth dipped in a lemon juice and baking soda solution. *Copper:* soak a cotton rag in a pint of boiling water with 1 Tbsp salt and 1 cup white vinegar. Apply to copper while hot; let cool, then wipe clean.
- Mildew Remover:** Make a solution with 1/2 cup vinegar, 1/2 cup borax and 1 quart of very hot water. Spray on and leave for 10 minutes. Wipe clean. Or add 2 tsp tea tree oil in 2 cups hot water in a spray bottle, shake to blend, and spray on problem areas. Do not rinse. For grout, mix one part hydrogen peroxide (3%) with two parts water in a spray bottle and spray on mold. Wait at least one hour before rinsing.
- Paint Brush Cleaner:** For oil-based paints, use citrus-based solvents available commercially.
- Scouring Powder:** Make a paste of baking soda and vinegar. Rub gently.
- Toilet Bowl Cleaner:** Mix 1/4 cup baking soda and 1/2 cup vinegar, pour into bowl, let stand, and brush well.
- Wood Polish:** Rub with 1 Tbsp of lemon oil mixed with one pint olive oil. Buff with soft cloth.