

# A TOP TEN LIST OF ENVIRONMENTAL ACTION INSIDE THE HOME, AWAY FROM HOME, IN THE GARDEN

A Public Service of

## THE CHURCHILL AREA ENVIRONMENTAL COUNCIL

2300 William Penn Highway Pittsburgh, PA 15235 2005

It is easy to feel overwhelmed and impotent in the face of global environmental problems. But real solutions start with the choices each of us makes in our daily lives.

### AT HOME:

**1. USE NON-TOXIC CLEANING PRODUCTS.** These can be purchased at the East End Food Coop or Whole Foods and are starting to appear at traditional grocery stores. Numerous web sites give recipes for "old fashioned" cleaning methods, which are better for the environment, your health and your wallet. Do a "Google" search of "natural cleaning recipes" or try: [sage.sedition.com/howto/green\\_cleaning.html](http://sage.sedition.com/howto/green_cleaning.html) and [littlepieces.com/naturalcleaning.htm](http://littlepieces.com/naturalcleaning.htm)

**2. REDUCE "E-WASTE" - DISCARDED ELECTRONICS.**

Decide whether you really need to replace something vs. upgrading or repairing it. Anticipate features you are likely to want over time in a PDA, cell phone, computer, etc. and buy them in that form now. Donate usable electronics to a non-profit organization or school. Recycle electronic equipment via Hi-Tech Scrap, N. Lexington and Meade Sts., in Point Breeze (412-731-5805) or Computers Hope in Point Breeze (412-860-9753). [ucsusa.org/publications/green\\_tips.cfm?publicationID=948](http://ucsusa.org/publications/green_tips.cfm?publicationID=948) or CAEC "Household Waste" 2003\*.

**3. PAINTING & REMODELING TIPS.** Choose "low VOC" (volatile organic compound) paints. Water-based latex is better than oil based; "green seal label" paints are best. Clean brushes at an inside sink so the water goes to a treatment plant rather than outside where it will go to your yard, a storm sewer drain and ultimately into a stream, river or other body of water. Oil-based paints are hazardous waste and require special disposal. Watch for special Household Hazardous Waste collections - [swpahhw.org](http://swpahhw.org) or call 412-488-7452. When planning major house remodeling contact the U.S. Green Building Council which certifies "green" contractors and practices - [usgbc.org/chapters](http://usgbc.org/chapters)

**4. BATTERIES.** Use rechargeable batteries whenever possible. Dispose of all batteries properly. They contain heavy metals that make them hazardous wastes. Radio Shack and Home Depot recycle rechargeable batteries from cameras, cell phones, cordless tools, et al. The E House Co. at 1511 East Carson St. (412-488-7455) accepts non-rechargeable (e.g. alkaline) batteries. Take car batteries to Tyke's Gulf on Greensburg Pike.

**5. THROW-AWAYS and HAZARDOUS WASTE.** Instead of one-use, "disposable" items buy refillable pens, mechanical pencils, razors, water and beverage bottles, etc. Take mercury thermometers to the Clack Health Center, Bldg. 7, 38<sup>th</sup> and Penn in Lawrenceville (weekdays).

**6. PETS.** Keep cats indoors to protect them from disease and harm and to protect birds from them. Clean up after your dog (this is probably an ordinance in your community), especially on sidewalks and streets to keep wastes from entering storm water drains. Wash and brush dogs after trips and hikes to avoid introducing exotic/invasive seeds, parasites and other pests into your area.

**7. CONSERVE WATER.** Replace old toilets with low-flow models; the newest dual-flush type is much more effective than some of the earlier low-flow versions. Tips and suggestions for the bathroom, kitchen and laundry room can be found at: [sage.sedition.com/howto/water-home.html](http://sage.sedition.com/howto/water-home.html) or [h2ouse.org](http://h2ouse.org)

**8. AIR CONDITIONING/HEATING/LIGHTING.** Replace your old heating/ventilation/air conditioning (HVAC) system with a new, energy-efficient system. Keep your thermostat at 78° in the summer and 68° or lower in the winter. Clean system filters regularly. Replace incandescent light bulbs with fluorescent and compact fluorescent lamps. CAEC "Energy Efficient Lighting" 1994\*.

**9. SAVE ENERGY IN THE KITCHEN.** Use the smallest appropriate appliance (e.g. toaster oven vs. conventional oven). Microwave ovens often use less energy for the same job, such as heating water. Keep appliances clean; clean cook tops and ovens are more energy-efficient. Using glass or ceramic pans in the oven usually allows you to lower the temperature by 25 degrees. Other ideas can be found at: [ucsusa.org/publications/green\\_tips.cfm?publicationID=999](http://ucsusa.org/publications/green_tips.cfm?publicationID=999)

**10. BUY ENERGY SAVING APPLIANCES.** EPA-certified "Energy Star" appliances use 10-50% less energy and water than standard models. Slightly higher purchase prices are recovered in the first few years through lower utility bills. For example, an Energy Star clothes washer uses 18-25 gallons of water (regular machines use 40+). Front loaders are more efficient than top loaders. Wash full loads only, using cold water for rinses. Minimize use of the clothes dryer - sun drying is free!

"Never doubt that a small group of thoughtfully committed citizens can change the world. Indeed, it's the only thing that ever has."  
Margaret Mead

"The environment is very important in the aspects of peace because when we destroy our resources and our resources become scarce, we fight over that."  
Wangari Maathai  
Nobel Peace Prize Winner, 2004

"For if one link in nature's chain might be lost, another might be lost, until the whole of things will vanish piecemeal."  
Thomas Jefferson

## **AWAY FROM HOME:**

- 1. RECYCLING.** Larger communities are mandated by law to recycle several commodities at the curb, usually glass, metal cans and/or newspaper. However, you can recycle almost anything, anytime, at **Construction Junction** - 214 N. Lexington St. (corner of Meade just off Penn Ave.) in Point Breeze/Homewood (412-243-5025). There are bins for newspaper, magazines, catalogs, phone books, flattened corrugated cardboard, cereal box cardboard, white office paper, junk paper and mail, plastic (all kinds), cans and glass (no pre-sorting). Used electronic products (computers, monitors) can be placed in a bin inside the main entrance. You can donate whole cans of latex paint and most usable building materials. **The UPS Store**, 322 Mall Blvd., Monroeville accepts styrofoam, bubble wrap and other clean packing materials.
- 2. TRANSPORTATION.** Use public transportation like the East Busway if possible (senior citizens ride free during non rush hours with a special pass). Carpool, combine trips and consider gas mileage and hybrid technology when shopping for a vehicle. Inflate tires properly (under inflation can waste 5% fuel) and tune-up the engine regularly. Avoid excessive idling and "jack rabbit" starts. Michelin Energy Tires combine many features to improve fuel efficiency and Prestone Lo-Tox antifreeze is a less toxic type. Use auto air conditioning judiciously. Under 40mph it reduces fuel economy by 20% or more. But, above 40mph AC is more fuel efficient than driving with windows open (due to aerodynamic drag). [apartners.org](http://apartners.org)
- 3. SHOPPING.** Reuse the paper or plastic bags from grocery stores; keep a supply in the trunk of your car. Or, use your own, long lasting, cloth and string mesh bags. Giant Eagle, Shop and Save and the East End Food Coop pay 5 cents for each bag you bring for your groceries. Avoid excess packaging by buying in bulk. Organic products are worth considering for your health. Buy paper products made of recycled fiber (e.g. Marcal toilet tissue is 75% recycled paper. Shop locally to cut down on driving.
- 4. EATING OUT.** Avoid styrofoam for take out or leftovers. Ask for a paper container or bring your own, reusable one. At the office use mugs instead of throwaway cups at the coffee machine. When barbecuing avoid charcoal briquettes which release suspected carcinogens. Grill vegetables and lean meats using aluminum foil as a shield. Cook slowly and evenly to avoid excessive heating. Use charcoal substitutes, gas grills or one of the new electric grills that can cut harmful emissions 94%!
- 5. LITTER.** Take a bag and gloves along on walks to pick up litter as you go. People are less likely to litter if they see a clean environment. Adopt a park or a section of hiking trail that you use frequently and keep it litter-free.
- 6. SEWERS.** Everything that enters the storm drains on streets and roads flows untreated into our creeks and rivers. Each of us must guard the purity of this storm water because it eventually enters our drinking supply. A current agreement with the EPA requires all communities in the ALCOSAN service area to eliminate water pollution from sewage, chemicals and other sources. Reduce the use of chemicals on your property and never dump waste of any kind into storm drains (e.g. motor oil, which can be taken to many gas stations, including Tykes Gulf on Greensburg Pike).
- 7. AIR TRAVEL.** The average commercial flight in the US releases 1,800 pounds of greenhouse gas per passenger into the atmosphere. Several web-friendly organizations offer to balance the emissions of air travel. For \$10 the non-profit "American Forests" will plant 10 tree seedlings in a damaged forest on public land. An average tree can absorb about 26 pounds of carbon dioxide a year. [americanforests.org/resources/cc](http://americanforests.org/resources/cc) The "Better World Club" travel agency balances emissions from flights you book with them by retrofitting oil-burning boilers and water heaters in schools. [betterworldclub.com/environment/carbon\\_offsets.htm](http://betterworldclub.com/environment/carbon_offsets.htm) For flights over 500 miles emissions are comparable to driving. Shorter trips are better done by car (preferably car pooling) or bus.
- 8. RECREATION.** Develop a "sense of place". Use wood gathered near your campsite rather than bringing it from home. Never release pets, aquarium plants and fish or unused bait into wetlands, waterways or storm drains. Those that may survive can pose a threat to native species. Empty water and debris from canoes and other equipment before heading home. When on vacation in other countries avoid buying ivory, tortoiseshell, coral, reptile skins, cat pelts or other products made from poached or endangered wild animals.
- 9. COMMUNITY IMPROVEMENT.** Volunteer with community beautification groups, the River Sweep campaign (removes discarded objects from area streams each June), an Adopt-A-Highway team or a Rails to Trails chapter. Form a local park patrol to remove invasive plants (e.g. garlic mustard). Alert local officials to the presence of refractory invasives (e.g. Japanese knotweed), illegal dirt bikes or other ruinous activities. Follow up to be sure these problems are addressed and routine park maintenance is performed and funded.
- 10. BECOME AN ADVOCATE.** Attend borough council or commissioner meetings (call your municipal office for date and time). Encourage "smart zoning" to reduce sprawl, judicious use of road salts, regular maintenance of sewer systems and aggressive enforcement of environmental ordinances. Make sure your borough has updated ordinances on proper garbage/waste storage and disposal, vector control (mosquitoes, rodents), pet licensing, leashing and cleanup.

"If we go on as we are, we will destroy in the next century everything that the poets have been singing about for the past two thousand years."  
Fred Roddsworth

"Only in the last moment of human history has the delusion arisen that people can flourish apart from the rest of the living world."  
E.O. Wilson

"Modern society will find no solution to the ecological problem unless it takes a serious look at its lifestyle."  
Pope John Paul II

## IN THE GARDEN:

- 1. COMPOST** all garden waste and raw kitchen scraps, but **not** animal products (meat, bones, fat or pet waste). In a concealed part of your property construct a 3-sided enclosure and alternate twigs, grass, leaves and trimmings to build a loose pile up to 4' high. Add a little soil, agricultural lime and all-purpose fertilizer occasionally. Turn the pile with a pitchfork once or twice a season. Use the "finished" compost as a soil additive or water saving mulch for plants. CAEC "How to Compost" 1991\*.
- 2. PLANT AN ORGANIC VEGETABLE GARDEN** in a sunny corner. A fence 6-8' high will deter deer. Or, try spraying young plants with a non-toxic, egg/hot pepper animal repellent available at garden supply stores. Spade the soil to a depth of at least 12 inches. Add lots of compost, preferably homemade and pesticide-free. In early April plant onion sets around the edge; sow loose-leaf lettuce seed (e.g. Black-seeded Simpson) behind the onions. After May 25 plant 2-4 tomato plants (buy disease-resistant varieties or start your own from seed in mid-March). Try something new each year (e.g. herbs). *Your Organic Garden*, Rodale Press, 1994 or CAEC "Recommendations for a Small Vegetable Garden" 1975\*.
- 3. PRUNE TREES CORRECTLY** to avoid spreading pathogens like oak wilt and dogwood anthracnose, carried from tree to tree by bark insects. **Prune only during the dormant season, October – March.** Remove dead, diseased or "in the way" branches that can be reached from the ground. Employ professionals with proper equipment for larger jobs. Make cuts flush with the trunk, but just outside the branch collar (the swollen area at the base of the branch). Tree healing requires no further treatment. Plant trees so their mature branches will not contact power lines. Utilities have the legal right to trim vegetation on their rights of way, often destroying the natural character of the tree. For gardens of modest size select small trees such as redbud, dogwood, mountain maple. CAEC "Proper Trees for Small Properties" 2001\* or [www.ces.ncsu.edu/depts/hort/](http://www.ces.ncsu.edu/depts/hort/)
- 4. CONSERVE WATER IN THE GARDEN.** Plant xerics (plants resistant to drought). These include species that have thick, leathery, hairy, fuzzy, waxy or gray-colored foliage, e.g. *Sedum*, *Yucca*, *Yarrow*, *Artemesia*, lamb's ears. Group water-requiring plants in one part of the garden for special attention during droughts. Mulch plants with 3-4" of compost, shredded bark, chipped leaves or pine needles (for evergreens). Avoid peat moss and cypress mulch that may be cut and trucked from wild areas. If watering is needed, do it early in the morning, using a soaker hose – 1"/week. Frequent surface wetting is ineffective, wastes water and promotes disease. You can collect rain-water by hooking into a downspout. [gardeners.com](http://gardeners.com) Avoid over-fertilizing and chemical use, both of which contaminate water supplies during run-off and/or absorption into soil. Use ½ the recommended strength for fertilizer and never apply chemicals if rain is imminent.
- 5. CONTROL SOIL EROSION.** If your property is sloped, use terracing, inward-slanting rock walls or rock garden designs. A 4-5" layer of mulch should cover all bare soil and be replenished as necessary until vegetation is established. Consider a small pond with mosquito-eating fish and oxygenating plants for a garden spot that is chronically wet or soggy. Or, make a wetland garden using shrubs like meadow-sweet, woolly willow and buttonbush, perennials such as *Astilbe*, primrose, blue-flag iris and cinnamon, ostrich, sensitive ferns. If plants fail to thrive, get your soil tested for texture, mineral content and pH. Kits are for sale at the Allegheny County Extension Service, 400 N. Lexington St., Pittsburgh 15208 (412-473-2540).
- 6. ATTRACT PEST-EATING BIRDS.** Plant a variety of native, seed/fruit-bearing trees (hawthorn, hornbeam, Amer. hazelnut), shrubs (winterberry, holly grape, coral berry) and perennials (coral bells, black-eyed Susan, coneflower, bee balm). Feed birds to encourage loyalty to your property. Hummingbirds are voracious insect eaters; attract them with a simple, clean, sugar-water feeder (one-part sugar: 3 parts boiled water) from April thru October. Use squirrel proof feeders for other birds and locate them where cleanup is easy. Try safflower seed in the feeder; squirrels do not eat it but birds do. If rats become a problem discontinue feeding for a while. Provide a dependable, shallow source of water. To prevent mosquitoes change the water every 3-4 days and scrub the container with a stiff brush. Garden wildlife habitat ideas are at [biodiversityproject.org](http://biodiversityproject.org) or [audubon.org/bird/at\\_home/wildlife.html](http://audubon.org/bird/at_home/wildlife.html)

## **7. USE PESTICIDES AND HERBICIDES WISELY AND SPARINGLY.**

Only 2% of insect species are "pests" and many are useful pollinators or predators. Walk your property with a jar of soapy water, removing pest insects to the container. Learn to recognize and destroy bagworms, hornworms, Japanese beetles, gypsy moth and tent worms. Leave harmless caterpillars and larvae to mature into beautiful butterflies and colorful beetles. Spray aphids (plant lice) with a blast of water from a garden hose. Dust with Bt ("Dipel") for leaf-chewing larvae like cabbage looper. Try insecticidal soap or botanicals like nicotine sulfate ("Black Leaf 40"), pyrethrum and rotenone. Safe fungicides are "neem" (azadirachtin), baking soda or *Bacillus subtilis* ("Serenade"). Plant marigolds and sage around vegetables to repel nematodes. For weed control, try hand removal followed by heavy mulching. Severe problems may require spraying with 2,4 D ("Weed-B-Gone") - a plant growth hormone that kills broad-leaf species like dandelion and chickweed but **not** grass. Seed germination inhibitors like dithiopyr ("Preen") and "kill all" products like glyphosate ("Round-Up") should be last resorts. If you employ a lawn service make sure the company offers a choice of safe, narrow-purpose pesticides for specific problems. CAEC "Pests in Perspective" 1992\*; [gardensalive.com](http://gardensalive.com) (513-354-1483) or [runsgardenweb.com/forums/](http://runsgardenweb.com/forums/) and [paipm.cas.psu.edu/alternatives.html](http://paipm.cas.psu.edu/alternatives.html)

"A true conservationist is a man who knows that the world is not given by his fathers but borrowed from his children."  
John James Audubon

"recognize the right and duty of this generation to develop and use our natural resources, but I do not recognize the right to waste them..."  
Theodore Roosevelt

"We cannot solve the problems we have created with the same thinking that created them."  
Albert Einstein

**8. DIVERSIFY YOUR GARDEN.** Convert your property into a safe "corridor for wildlife". Plant a diversity of tree species (preferably native) whose adult size and shape are compatible with the scale of your garden space. Avoid forest canopy trees like oak, beech, tulip poplar, hemlock and spruce. Select smaller species like sweet bay magnolia, American holly, witch hazel, serviceberry. CAEC "**Proper Trees for Small Properties**" 2001\*. Add an under story of native shrubs, including mountain laurel, winterberry, viburnum and spicebush; finish with deer resistant perennials, especially ferns. Cluster plantings within curved or irregular borders. A shade tree on the south side of your property can shield the house from summer sun. Staggered plantings of evergreens on the north and west sides will deflect cold winds. Both will lower utility bills and reduce CO<sub>2</sub> in the atmosphere. Avoid plants that attract diseases or pests (birches, oaks) and be sure the plants you buy are nursery-propagated, NOT taken from the wild. Order "**Landscaping for Wildlife**" from the Wild Resources Conservation Fund, POB 8764, Harrisburg PA 17105 \$20.

**9. ELIMINATE INVASIVE SPECIES.** A small percentage of alien plants can become aggressive pests, displacing and even exterminating valuable native species. Plant native species whenever possible (e.g. red maple instead of Norway maple). [SylvaniaNatives.com](http://SylvaniaNatives.com) (412-596-4989) and the Audubon Native Plant Nursery (412-963-6100) are local sources. Avoid plants described as "quick spreading" or "able to grow anywhere". Get to know and recognize the top ten invasives in our area: tree of heaven, garlic mustard, multiflora rose, purple loosestrife, Canada thistle, Japanese knotweed, *Phragmites*, goutweed, Japanese stiltgrass and mile-a-minute vine. For help contact your local garden club, the Botanical Society of W. Pa. or the fully illustrated web site: [nps.gov/plants/alien/fact.htm](http://nps.gov/plants/alien/fact.htm). Ask local garden stores NOT to sell these invasives. Remove invasives or prevent their spread by frequent pruning or the judicious, targeted use of herbicides. Do NOT allow them to set seed. Do not disturb natural areas. Invasives thrive on bare or damaged soils. Over-fertilizing also favors invasives; use compost instead. Send for the brochures "**Invasive Plants in Pa.**" and "**Landscaping with Native Plants**" from the DCNR Bureau of Forestry, POB 8552, Harrisburg PA 17105. Useful web sites include the W. Pa. Conservancy [paconserv.org](http://paconserv.org), the Brooklyn Botanical Garden [bbg.org/gar2/pestalerts](http://bbg.org/gar2/pestalerts) and the U.S. Government Plant Database [plants.usda.gov](http://plants.usda.gov)

**10. LAWN CARE.** Consider minimizing the size of your lawn; its care wastes energy and water and adds harmful chemicals to our environment. Each year convert part of your lawn to a wildflower meadow, a curved bed of nut and berry-bearing shrubs or a place for xeric ground cover plants like *Sedum*, *Tiarrella* (foam flower) and saxifrage. If you must retain some lawn, manage it organically. Develop healthy soil (pH 6.5-7), spreading well-rotted manure, compost or organic fertilizer in spring and fall. Water Deeply (1"/week in early morning during droughts). Better yet, do not water. The lawn will turn brown but a good rain will "green up" most turf. "Mow high and let it lie"; keep grass 3" long to shade roots, provide natural fertilizer and retain moisture. A sharp-bladed reel mower is best; a rechargeable electric mulching mower is next best. Aerate packed soil (rental aerators are available at garden centers). Hand weed before seed set or spot treat with 10% vinegar or "Weed-B-Gone". Dust with milky spore ("Doom") as directed on the package to eliminate grubs over 2-4 years. "**The Chemical Free Lawn**", Warren Schultz, Rodale Press, 1989. Free information at: BIRC, POB 7414, Berkeley CA 94707 [birc.org](http://birc.org) and [nrdc.org/thisgreenlife](http://nrdc.org/thisgreenlife) (go to the "Issue Archive" box, then click May'05) or call (510-524-2567).

\*This prior **Churchill Area Environmental Council** advisory is available at your municipal office or send a legal size, stamped, addressed envelope to C.A.E.C., c/o Churchill Borough, 2300 Wm. Penn Highway, Pittsburgh 15235.

"For the first time in the history of the world, every human being is now subject to contact with dangerous chemicals, from the moment of conception until death."  
Rachel Carson

"The long fight to save wild beauty represents democracy at its best. It requires citizens to practice the hardest of virtues- self-restraint."  
Edwin Way Teale