

# NORTHWEST EARTH INSTITUTE ECO-TIPS

## MOVING TOWARD ZERO WASTE

*If you're putting out a full-size can of garbage a week, you're missing an opportunity to lighten the load on the planet. Here's a step-by-step approach to reduce waste.*

### STEP ONE - RECYCLING

The first step is to recycle everything your garbage hauler or recycler will take. In many communities that means:

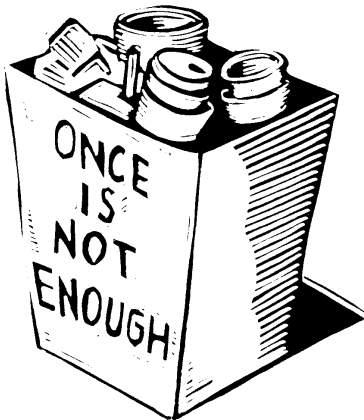
Newspaper	Cardboard/Brown Bags	Glass Containers	Tin Cans	Yard Debris
Scrap Paper	Magazines	Aluminum	Scrap Metal	

Scrap paper does not include tissue paper, but otherwise it's very inclusive. Envelopes with plastic windows or gummed labels are acceptable. As long as the paper isn't coated with plastic, wax, carbon, or foil, it's probably okay. Watch out for Christmas card envelopes and wrapping paper that may be decorated with foil. Paper cartons containing food are often covered with plastic so it's best not to include them. Sometimes it's possible to separate the plastic liner from a container, as in frozen juice concentrate cans (soak with water first) or pet food bags, so the paper can go into scrap.

If the above items are not collected curbside in your community, call your local government to find out whether there are any drop-off centers where you can take them.

Also ask about other items that sometimes have local markets for reuse or recycling:

- Plastic tubs and plastic bags – In some communities these items may be taken back to a store for recycling.
- Foam packing peanuts --These can be reused by mail service outlets.
- Rigid foam packaging – Check with your local government to see if anyone recycles rigid foam.
- Motor oil, filters, antifreeze, batteries, and tires – Since these are so toxic, or a nuisance, in the environment, local governments often provide for recycling.



- Books (including phone books) – There may be outlets for selling or donating books for reuse in your community. The binding and hard covers generally keep books from being recycled with paper, but some recyclers have the ability to accept them.
- Wood and dry wall – Check with your solid waste official to see if any local companies accept these.
- Cloth products – Even if they are torn or stained, thrifts sometimes accept clothing and other fabrics for rags or recycling.

- Electronics (computers, printers, cell phones, TVs, etc.) – Electronics contain toxic metals and shouldn't be landfilled or incinerated. Check with your local solid waste official about reuse/recycling opportunities.
- Clothes hangers – These can often be taken to dry cleaners for reuse.

## **STEP TWO – COMPOSTING**

Once you are comfortable with recycling, it's time to make another dramatic reduction in waste through composting. A compost pile will keep all your grass clippings, fallen leaves, and garden debris out of the garbage and turn them into a soil amendment. You can also add wood ashes and drier or vacuum-cleaner fluff. Even if you give it no attention, a pile of organic debris will eventually degrade because of the action of bacteria, fungi, and other organisms. If you want the compost sooner, the trick is to grow more bacteria to do the work for you. Bacteria need a certain mix of carbon and nitrogen, and lots of surface area to thrive (a shredded leaf or twig has more surface area than a whole one), water, and air. Turning the pile helps provide air. Holding bins are not required, but they are very helpful in keeping the pile organized and slightly.

Once you have successfully composted yard debris, you can add food waste like vegetable and fruit scraps, coffee grounds, and plate scrapings. To avoid pest problems, leave out meat, dairy, oil, or grain products. Just dig a hole in your compost and bury the food, covering it up with compost. Other ways of composting food scraps are a worm bin or burying in the soil. A worm bin is usually a home-made box, with holes drilled in the bottom, and a lid. It is filled with bedding such as damp shredded newspaper and a pound of red worms, which digest the food. If you are burying food in the ground, cover with at least eight inches of soil.

## **STEP THREE – PACKAGING AND DISPOSABLES**

Now it's time to attack the bane of American society—packaging and disposables that are not recyclable or compostable. That's where precycling comes in—altering your purchasing habits to end up without waste. Seek out those grocery, meat, and hardware stores where items are not prepackaged in plastic. If you can't find the product you need without excess packaging, unwrap it at the store and leave the package there along with your explanation. Get yourself some every-day cloth napkins to replace paper ones; dish towels and rags to replace paper towels; and containers with lids to avoid using plastic wrap and foil. Patronize restaurants that use washable plates and utensils.

## **STEP FOUR – ANALYZING WHAT'S LEFT**

Now that there's so little in your trash can, you can easily see what's left and determine how it could be eliminated.

# NORTHWEST EARTH INSTITUTE ECO-TIPS

## BUYING ORGANIC

*The trend in buying organic is one of the success stories of the sustainability movement. The market for organic food has been growing by 15-20 percent every year.*

*However, organic farms still provide only a fraction of the nation's food supply (less than two percent in 2002). Marketing and distribution infrastructure is too small to benefit from economies of scale, and organic farms do not receive the same subsidies as large conventional farms. Production costs and risks can also be higher: for example when soil is being replenished by a cover crop, it's not producing food. These factors combine to make organic food more expensive than conventional food. Why are consumers so willing to pay more?*

### HEALTH CONCERNS

In a survey of those who purchase organic food, 66 percent reported that health was the primary motivator.

According to EPA about two-thirds of herbicides and fungicides used by American farmers are probably or possibly carcinogens, and studies show that residues of these chemicals remain on a portion of fruits and vegetables in the grocery store. Children are particularly at risk because their neurological systems are still forming and their immune systems are less able to rid their bodies of contaminants. Also, they consume more calories per pound of body weight and eat fewer types of food than adults. A study from the University of Washington showed that preschoolers fed conventional diets had six times the level of certain pesticides in their urine as those who ate organic food.

Farmers' sprays are also killing wildlife, endangering farm workers, and degrading soil and water. Pesticides have been detected in well water in almost every state.

### SUPPORTING SUSTAINABLE GROWING PRACTICES

But beyond health there's another important reason to buy organic—to bring about a shift from an unsustainable agricultural system to a sustainable one. The current system has been incredibly productive, but it's based on using up two irreplaceable assets: top soil and petroleum. US Soil and Conservation Service estimates that more than three billion tons of topsoil are eroded from US croplands each year. Modern farming uses more petroleum than any other single industry, about 12 percent of total energy supply. More energy is now used to produce synthetic fertilizers than to till, cultivate, and harvest all the crops in the US.



Pesticides, also made from petroleum, are being used in increasing quantities. Growing single crops on huge tracks of land year after year invites pest problems. The chemicals kill the pests' natural enemies, and the pests develop resistance to the chemicals designed to kill them. Therefore, farmers have to apply more chemicals. They are applying three times as much chemicals as 40 years ago to kill the same pests.

Organic farmers, on the other hand, develop food-growing practices that don't use up nature's resources. They raise a wide variety of plants and animals on smaller plots of land, understanding that diverse systems are more resilient. They rotate crops and grow cover crops to minimize pests, avoid erosion, and return nutrients to the soil. Complex living soils are replenished with composted plant material and manure. Healthier soil results in fruits and vegetables with a higher concentration of vitamins, minerals, and antioxidants that promote health.

## **ORGANIC CERTIFICATION**

Certified organic food must now meet standards established by the USDA. Not only is it grown and processed without synthetic pesticides or fertilizers, but also without antibiotics, genetic engineering, irradiation, or sewage sludge.

## **WHAT YOU CAN DO**

- Grow your own. With just a little space, you can plant a raised bed of vegetables to meet your household needs. Some homeowners are making their landscape plantings edible as well.
- Buy directly from local farmers when possible, either at farmers' markets, through community supported agriculture, or at roadside stands.
- Frequent organic food stores or the organic section of your supermarket.
- Select local produce in season. Buying organic may not be the best choice if the item must be shipped a long distance and harvested before it is ripe.

*NORTHWEST EARTH INSTITUTE ECO-TIPS*

# REDUCING YOUR CAR'S IMPACT ON THE PLANET

*Cars are the biggest oil consumers and air polluters in our lives. They are the largest contributors to global warming, their emissions contribute to asthma and other respiratory diseases, and they fuel international conflicts. The US currently imports 60 percent of its oil, the highest rate ever. What can ordinary citizens do about these concerns?*

## REDUCE MILES DRIVEN.

Estimate how many miles you drive each year and set a goal of reducing that by a certain percentage. There are a number of ways to accomplish this objective:

- Move closer to work. Daily commutes put the most miles on our cars.
- Sell a car. Ideally we would have one car per household.
- Explore mass transit, carpooling, biking, and walking options. Start by doing this once a week.
- Combine trips. Planning and patience are required to keep you from making a trip for one or two items.

## BUY A USED CAR.

This action preserves resources required to manufacture a new car and saves money. The car loses a significant portion of its value as soon as you drive off the lot. Check out *Consumer Reports Used Car Guide*, [www.consumerreports.org](http://www.consumerreports.org).

## CHOOSE A FUEL-EFFICIENT CAR.

The car you buy is one of the most important environmental choices you will ever make. Before you look at cars, commit to getting 30-50 miles per gallon. If you are drawn to a large car, evaluate your reasons. How many times per year do you actually need that much space? Small cars that allow the seats to go down can haul more than you would think. Renting a car or a trailer are other options for special occasions. A 5000-pound car will get about half the mileage of a 2,500-pound car. Other features that hurt fuel efficiency are a big engine,

automatic transmission, air conditioning, and power windows and doors. See the *EPA Gas Mileage Guide*, [www.fueleconomy.gov](http://www.fueleconomy.gov), for a comparison of current-year or past-year models.



Currently, hybrid models show the highest gas mileage. The Toyota Prius tops the list for a midsize car. Hybrids combine a highly efficient gas engine with a battery-powered motor. David Friedman with the Union of Concerned Scientists says, "If every new car and truck purchased in America used Prius-like technology, we could more than double fuel economy of our vehicles and save nearly three times more oil than we currently import from the Persian

Gulf by 2020.” A hybrid will cost more up front, but fuel savings will more than offset that initial cost differential over time. The federal government also provides a tax deduction.

### **CHOOSE A LOW-EMISSION CAR.**

Diesel engines surpass gas engines for fuel efficiency, but they emit at least ten times more particulate matter. Therefore, they pose a risk to human health. However, if you already have a diesel car, you may be able to purchase biodiesel fuel, which is typically made from soybeans. A 20 percent blend will reduce particulates about 12 percent, and 100 percent biodiesel, about 55 percent. Check [www.biodiesel.org](http://www.biodiesel.org) for nationwide purchasing locations. Another choice in some parts of the country is ethanol, produced from grain crops. Even though it is not as fuel efficient as gasoline, it has a lesser global warming impact.

The Union of Concerned Scientists undertook an environmental analysis of the top car companies based on the performance of their vehicles, focusing on global warming emissions and air pollution. After estimating the emissions by each company's average new vehicle in 2004, it ranked the automakers from cleanest to dirtiest: Honda, Nissan, Toyota, Ford, DaimlerChrysler, and General Motors. Vehicles sold by Honda emitted 21 percent less global warming gasses and 31 percent less smog-producing pollution than the overall average of the Big Six automakers. The trucks emitted almost twice as much pollution as cars. For emission information for specific models, see EPA's Web site, [www.epa.gov/greenvehicles](http://www.epa.gov/greenvehicles).

### **OTHER THINGS YOU CAN DO**

- Have regular tune-ups and oil changes. A minor tune-up could increase gas mileage by 6 percent.
- Drive moderately at a steady pace. Cars get their best gas mileage at steady speeds of 45 mph. Driving 75 mph instead of 65 will lower fuel efficiency by ten percent.
- Avoid cold starts for short trips. On trips of five miles or less, a car cannot reach its economy potential.

*NORTHWEST EARTH INSTITUTE ECO-TIPS*

# MAINTAINING A CHEMICALLY FREE YARD

*Do you vacillate between the desire for a chemically free yard and an aesthetically pleasing one? No need to do that: you can have both. Your natural surroundings are important to your state of being. Yet, there are strong reasons to be concerned about pesticides. Homeowners pour nearly 70 million pounds of pesticides on urban lawns each year, according to the Environmental Protection Agency. That's three times more per acre than what's applied by U.S. farmers. And 95 percent of these pesticides are considered probable or possible carcinogens. Even if you don't have children or pets who might be exposed, some portion of those applied chemicals will make it to a waterway and affect aquatic life.*

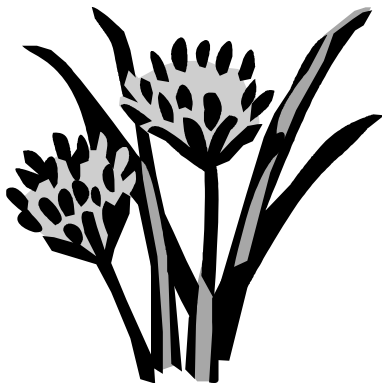
## LAWNS

Attractive lawns don't require chemicals, but they do require care based on an understanding of lawn ecology. One of the most important things you can do is mow often and leave the clippings on the grass. That way, you're not losing the nutrients. To keep the grass tall enough to outcompete weeds, mow to a height of 2 to 3 inches. Never cut more than one-third of the grass blade, or it will be deprived of nutrients.

Don't knock yourself out trying to keep a lawn weed free. However, you need to manage the weeds, or they can get out of control. The best technique is to dig weeds out with a tool, preferably when they are actively growing and the soil is moist enough for the roots to come out easily. If you can't get all the roots, at least remove any flowers, like dandelions, before they go to seed, and remove as much of the leaves as possible to deprive roots of nutrients.

When you water a lawn, keep in mind that the goal is to get the water deep into the root zone. Therefore infrequent, long irrigation cycles are better than frequent, short ones. Grass specialists recommend 1 to 1 1/2 inches; put out a tuna fish can and see how long it takes to fill it to that amount. If you find that water doesn't penetrate the soil well, you may want to aerate it. Hand tools are available that remove small cylindrical cores of soil four to eight inches apart. Or you can rent an aerator from a rental shop.

If your grass is thriving and you leave the clippings on it, you may not need to add any fertilizer. But if the lawn seems to need additional nutrients, select an organic fertilizer made from plant or animal sources, such as compost, well-rotted manure, or a commercial blend. Organic fertilizers are renewable resources, and they release nutrients slowly, at a rate that plants can use, thus minimizing the chance that chemicals will run off and pollute the water. Synthetic fertilizers are made from fossil fuels and tend to release nutrients quickly. Excessive use can harm beneficial soil organisms.



Avoid using weed-and-feed fertilizers. Their application amounts to indiscriminate broadcasting of pesticides over non-targeted species whether or not a pest problem exists. Philip Dickey of the Washington Toxics Coalition says it's like painting your entire car every time you wash it, just to get rid of any possible scratches. These products typically contain 2,4-D, which is harmful to humans and wildlife.

## SHRUB BEDS, FLOWERS, AND TREES

Exposed soil provides a ready habitat for weed seeds that are carried by the wind or animals. Heavy mulching around your shrubs has several benefits. It covers the soil preventing some seeds from reaching it, it keeps the soil from drying out, and when it decomposes, it keeps the soil friable, making it easy to pull weeds that do grow. A more difficult challenge is pests or diseases that attack your plantings. Here are some general principles to follow:

- Select plants that are known to grow well in your local area without pest problems, plant them where they will get the right amount of sunlight and water, and give them plenty of organic material.
- Don't overreact. Discover what the pest is and monitor the damage. Call your county extension agent and ask about non-chemical controls.
- Entice insect eaters into your yard. Plant flowers that attract beneficial insects and trees that attract birds.
- Use mechanical methods of removing pests, such as jet streams of water to wash insects off, paper collars to keep away cutworms, handpicking caterpillars, and trimming diseased branches.
- If a pesticide is necessary, use the least harmful ones, such as insecticidal soap sprays.
- If none of this works, consider your need for that particular plant.

# NORTHWEST EARTH INSTITUTE ECO-TIPS

## USING ECO-FRIENDLY CLEANERS

*Look under the kitchen and bathroom sinks, and you're likely to find an array of cleaning products, each one "guaranteed" to make some cleaning chore easier.*

*None of us would consciously risk our health or wildlife just to keep our home spotless. Yet, we do so when we fill our shelves with disinfectants, polishes, stain removers, and toilet, drain, and oven cleaners. Damage can result from their production, use, or disposal.*

*Not only are these products hazardous, but most are not needed. For example, Consumer Reports found that plain water was more effective than half the commercial glass cleaners on the market.*

*Most household cleaning needs can be met with five simple ingredients: liquid soap, borax, vinegar, baking soda, and vegetable oil. Use these to create your own "miracle" cleaning formulas.*

### MIRACLE CLEANING FORMULAS

- **ALL-PURPOSE CLEANER**  
1 quart warm water, 1 teaspoon liquid soap, 1 teaspoon borax and 1 teaspoon vinegar. This solution will clean most surfaces including countertops, floors, walls, rugs and upholstery. Keep it in a spray bottle for ready use on small jobs.
- **TOILET BOWL**  
Scrub with a toilet bowl brush. For more thorough cleaning, empty the water in the bowl by pouring a bucket of water into it, sprinkle baking soda on a wet rag, and scrub the bowl inside and out. According to the Washington Toxics Coalition, using disinfectants serves no useful purpose.
- **TUB, SINK AND TILE**  
Sprinkle baking soda on a wet rag and rub. Rinse well to avoid leaving a hazy film. If a stronger cleaner is needed, use borax in the same way.



- **GLASS**  
Use a spray bottle and solution of 2 tablespoons vinegar to 1 quart water. Wipe dry with old newspapers to avoid leaving lint on the glass.
- **FLOORS**  
For vinyl floors damp mop with a solution of 2 tablespoons vinegar to 1 quart water. For wood floors, use 1 tablespoon liquid soap to 1 quart water.
- **DRAINS**  
Prevent problems by not letting grease or hair go down a drain. If a drain becomes clogged, use a plunger. Or pour in one-quarter cup baking soda, followed by one-half cup vinegar, and let them fizz for a few minutes.

Flush with boiling water. This combination should break down any fatty deposits. If

something else is clogging the drain, use a mechanical snake, available at most hardware stores, or rent a water ram or power snake.

- **OVEN**  
Avoid spills by placing a metal tray underneath baking dishes. If that fails, sprinkle baking soda on spills when they are warm; scrub off when cool. Periodically clean surfaces with moistened baking powder and a nylon scouring pad.
- **MOLD AND MILDEW**  
Prevention is the best solution. Keep shower area dry by using the fan and by wiping moisture off the tile. If mildew still appears, scrub with baking soda or borax.
- **WOOD FURNITURE**  
On unvarnished wood use a natural oil such as linseed. Let soak into the wood an hour or so and remove excess oil with a soft cloth. Varnished surfaces don't need to be oiled. Clean with a damp cloth and rub dry.

*NORTHWEST EARTH INSTITUTE ECO-TIPS*  
**TAKING GREEN STEPS AT THE OFFICE**

### **1. SET UP A RECYCLING SYSTEM.**

Recycling is a good first step because it's relatively easy, it's visible, and everybody participates. A typical office discards one-half pound of paper per person per day. Contact your recycling service provider and ask it what types of paper it will take and how the paper should be sorted. Provide each desk with a paper-recycling container; affix directions about what can and cannot be included. Conduct an education campaign so that everyone buys in and is thoroughly trained.

Once paper recycling is operating smoothly, move on to other materials. Do a walk-through of trash receptacles to see what recyclables are present. Call your local solid waste official to see what items are collected, how they should be prepared, and what kind of receptacle to use.

If there are items that can be recycled somewhere in the community—like plastic tubs, batteries, or food waste—check with staff to see if anyone is willing to transport them on a regular basis. When your recycling program is handling most of what people discard, consider removing the waste baskets from each desk and placing them in central locations.

### **2. TURN OFF MACHINES.**

The easiest way to save energy in the office is to turn off equipment when not in use. Contrary to popular belief, turning off computers will have no significant effect on their useful lifetimes. Today's computers are manufactured to operate normally with several on-off cycles each day. Therefore a general rule is to turn off computers when they won't be used for at least an hour. If you don't turn the computer off during short intervals because of the time to reboot, you can turn the monitor off or set the computer so that it will go into sleep mode more frequently.

Even more electricity can be saved if a master power switch is turned off at the end of each day. Another option is to plug printers, copiers, and fax machines into a time switch to ensure they are turned off after hours.

### **3. IMPROVE LIGHTING EFFICIENCY.**



Lighting accounts for approximately 37 percent of energy used in a typical workplace, and many offices are overlit because they were designed before the computer age. An efficient system would use low, general illumination overhead with task-lighting at each work station. In addition, older T-12 fluorescent lamps and obsolete ballasts can be replaced with T-8 bulbs and efficient, flicker-free electronic ballasts. Another approach is simply to remove lamps in areas that are overlit. If your space is subject to variable lighting levels, install dimmable ballasts to reduce artificial light when it isn't needed. Any

incandescent bulbs can be replaced with compact fluorescents, which use one-quarter of the energy and last ten times as long. Timers can be installed to shut off all lights at

night and weekends. Taking such measures can not only save 20-30 percent of lighting energy but also reduce cooling needs because efficient lights give off less heat.

In addition, employees should be instructed to turn off lights when leaving a room. Even though frequent switching does shorten the life of fluorescent lights, the energy savings generally makes turning off the light worthwhile. One additional note about fluorescent bulbs is this: Since they do contain mercury, they should be recycled.

#### **4. REDUCE PAPER USE.**

While recycling is important, reducing paper use actually saves more resources—trees, water, and energy. Having copiers and printers set for double-sided copying, or instructing all employees on how to duplex may be the single most important step that can be taken. For feedback on paper reduction, post a bar chart by the copier showing how much paper is used each month. Another step, which takes a bit more effort is reverse draft printing. Have collection boxes for paper used only on one side, and use the paper for creating notepads or for printing in-house documents. Some offices dedicate one printer or one tray of a printer for reverse draft printing. Other common sense practices are to make only the number of copies you need and read drafts on the monitor instead of printing them.

#### **5. BUY RECYCLED.**

Recycling works only if there's a demand for recycled products. Your office can help create that demand. Start with copy paper and letterhead and, when you are comfortable, include all your paper products. Call your supplier to find out which papers have 30-100 percent post-consumer recycled content and are processed-chlorine-free. "Post-consumer" means that the fiber has reached the consumer and been returned to the manufacturer through recycling programs. "Recycled" paper may contain fiber that has never left the manufacturing plant. Processed-chlorine-free paper is produced without chlorine in the current production cycles, although the recycling content may have been bleached with chlorine. When you use a copy or printing service, ask the same questions.

#### **6. USE GREEN CLEANERS.**

Many commercial cleaning products contain toxic chemicals that are not only harmful to the environment but also to the health of employees in enclosed spaces. Contact your janitorial service or building manager and ask what criteria are used in selecting cleaning products. Ask for products that are certified by a third party, such as Green Seal ([www.greenseal.org](http://www.greenseal.org)), or meet the EPA Design for the Environment standard ([epa.gov/opptintr/dfe](http://epa.gov/opptintr/dfe)).

#### **7. ELIMINATE DISPOSABLES.**

If your lunchroom has a dishwasher, it's easy to switch to durable plates, bowls, and utensils. Provide each employee with a ceramic mug, and have some glasses and mugs for guests. It's possible with just a sink but requires a little more employee dedication. Even cloth napkins and towels can be supplied as long as someone agrees to take them home for washing. A microwave and refrigerator can make it convenient for employees to bring their own lunches rather than frequenting a fast-food cafeteria that uses disposables. If your office provides lunches for meetings, select vendors that are willing to serve family style with returnable platters or that use only paper wraps. Plastic containers that head to the landfill don't decompose into benign materials. Provide a pitcher of water or juice to avoid individual beverage bottles.

## **8. PROVIDE COMMUTER INCENTIVES.**

Some offices that have had environmental audits determined that commuting had the largest impact. Perhaps the most important incentive is to eliminate free parking. Consider providing subsidies for the employees who choose to ride mass transit. To encourage bicyclers, provide a secure place to park bikes and cover the cost of an annual tune-up. Set up a rideshare program that matches riders and drivers who live near each other, or educate employees about community carpool programs. An incentive could be free- or reduced-rate parking. Some offices provide a bike, a hybrid vehicle for use by anyone on staff during the day, or bus tickets so that no one feels compelled to drive a car to work.

If work requires airplane travel, consider purchasing offsets for the carbon emissions from a third party like Climate Trust.

## **9. REUSE RATHER THAN BUYING NEW.**

Many laser printers and photocopiers use toner cartridges that can be recharged. Look in the Yellow Pages under Computer Supplies. Rechargers disassemble the cartridge, replace worn or broken parts, clean everything, and refill the cartridge with toner. Some rechargers provide free pick up and delivery and still charge less. Another option is to purchase your cartridge from a manufacturer that pays for return of the cartridge. Establish a convenient reuse center in your office supply section to make reusing supplies such as binders, file folders, and paper clips simple for the person depositing an item for reuse and for the person looking for supplies.

## **10. TAKE ADVANTAGE OF TENANT IMPROVEMENTS.**

Tenant improvements or a move to new space provide additional opportunities for greening your workplace. You may want to select materials that are (1) locally manufactured, (2) durable (such as wood, tile, or linoleum rather than carpet), (3) low-VOC emitters (like some paints and adhesives), (4) made of salvaged or FSC-certified wood, (5) rapidly renewable (like bamboo flooring or wheatboard cabinets), or (6) made with recycled content (like ceiling tiles). Be sure to tell the building manager and contractor that you want old building materials recycled. To save electricity, one of the most important first steps might be to sub-meter your space so that employees are aware of office consumption and the impact of conservation measures (also, see #3 on lighting). To save water, replace or upgrade toilets and faucets to exceed current code. Instead of throwing away old equipment, explore reuse opportunities in your community. And if purchasing new equipment, make sure it has an Energy Star label for energy efficiency.

# *NORTHWEST EARTH INSTITUTE ECO-TIPS*

## REDUCING JUNK MAIL

*If you are an average American, you will spend eight months of your life just opening and sorting junk mail. About 850 pieces of advertisement and solicitations arrive at a household each year. Much of this goes directly into the recycling bin or trash can.*

### WHAT IS JUNK MAIL?

Junk mail is anything that comes in the mail box that you don't read. It doesn't matter how classy the catalog, how convenient the product, or how much your support is needed to save the rain forests. If you don't want it, it's junk.

One of the worst offenders is the catalog. Some consumers report receiving up to 500 in one year. How could one person possibly get on that many mailing lists?

An innocent request for a catalog can result in two things. First, your name and address go into the computer whose memory never goes bad. This means you may receive every periodic, seasonal or specialty catalog published by the company. Second, the company may rent or sell its mailing list to other catalog advertisers, who in turn may pass your name and address on to others.

### REDUCE WHAT YOU CAN.

Your best strategy is to reduce the amount of junk mail coming to your home. Here are some steps you can take:

- Write to DMA Mail Preference Service, PO Box 643, Carmel, NY 10512. This will stop your name from being sold to large mailing list companies for five years.
- If unwanted mail is accompanied by a return envelope, fold up everything you received, place it in the return envelope and mail it back. A note next to your address label should state that you want to be removed from the mailing list.
- Call the sender to request that your name be removed from the mailing list. Catalogs generally include 800 numbers. When you order from a catalog, tell them how many catalogs per year you are willing to accept.



- If you are being overwhelmed with credit card offers, call the opt out number for major credit bureaus, 1-888-567-8688, available 24 hours a day. Ask to have your name removed permanently.
- Keep a stack of postcards handy with this message: "Please take me off your mailing list." Tape the label with your address onto the postcard and send it off.
- Cancel all publications you don't have time to read.

## **KEEP YOUR NAME OFF LISTS.**

The best way to keep off lists is to be very careful whenever you give out your name and address. Information that you send on warranty cards or in entering contests may go directly to a marketing firm. When filling out forms for credit cards, subscriptions, or memberships, state that you do not want your name released to any other business. Avoid giving your name and address for a store “buyers club” card. If you move, fill out the post office’s temporary change of address form instead of a permanent one. Notify important parties yourself.

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## PAYING ATTENTION TO PLASTICS

*Fifty years ago, plastic, made from petrochemicals, was a relatively new material. Phonograph records, nylon stockings, toothbrushes, and combs were some of the earliest consumer uses. Now plastic has completely infiltrated our lives. It's hard to furnish a home, wear clothes, or buy food without it. It's cheap, and it's versatile. A single plastic resin, for example, can appear as clingy plastic wrap, rigid plumbing pipe, or soft walking shoes.*

### ENVIRONMENTAL IMPACTS

Unfortunately the cost of plastic does not cover its environmental "wake": front-end pollution and back-end waste. The production of chemicals that are the building blocks of plastics, such as propylene, ethylene, and polystyrene, generates large quantities of hazardous waste, which flow into the air and water. Workers and those living near the plants suffer the most. In fact an area along the Louisiana border is known as "cancer alley."

Litter has always been an aesthetic problem, but when litter is plastic, it can actually be lethal to wildlife. Early stories told of birds being strangled in six-pack rings and turtles mistaking plastic bags for food. But more recent research has found that the plastic in the ocean breaks down into tiny pieces and is being taken up by all kinds of marine animals. Even if plastic waste gets to the right place, it is not benign. In landfills the toxic additives leach out and may show up in groundwater. When burned in incinerators, some kinds of plastic waste emit mercury, lead, and dioxins.

### HEALTH CONCERNS

We're now finding that even the *use* of some plastic consumer products can be hazardous to our health. Common plastic softeners for vinyl (PVC) called phthalates have been shown to leach out of soft plastic toys chewed by small children. Europe has already banned PVC from infant toys. Phthalates, perhaps best known as the chemical that helps create the "new car smell," vaporizes when exposed to heat and may leave a thin film inside a car window. These chemicals have also migrated from PVC film into food. Phthalates are endocrine disrupters that may contribute to declining sperm count and male birth defects. Other studies indicate that polycarbonate water and baby bottles may leach a hormone-disrupting chemical.



### RECYCLABILITY

Some plastic items, particularly packaging, can be melted down and recycled. However, the material degrades with repeated heating. Instead of "bottles to bottles," most food containers are "downcycled" into another product. Soda bottles that go back to the store may find their way into carpets, fiberfill, or clothing. Milk jugs may be made into flower pots, pipe, or park benches. Other containers have less value, and may be transported overseas, where sorting labor is cheaper.

Consumers often assume that the number inside a triangle on the bottom of containers means the material is recyclable. However, the number merely identifies the type of plastic. The symbol does not tell you whether that container is recyclable in your community.

### WHAT YOU CAN DO

- Find out which plastics are recyclable in your community. Most communities offer curbside collection of some food and beverage containers or a place where you take them.
- Avoid purchasing plastic packaging in the first place, especially #3 (PVC) and #7 (mixed resins). Give preference to glass, metal, and paper.
- Store food, particularly liquids, in glass or ceramic containers.
- Don't heat plastic containers or film in a microwave.
- Avoid vinyl and other synthetics when selecting home building materials or furnishings. The safest materials are natural fibers and wood with no synthetic adhesives or finishes.
- Choose natural fibers for clothing, such as wool, organic cotton, linen, or silk rather than polyester or nylon.

# NORTHWEST EARTH INSTITUTE ECO-TIPS

## PRECYCLING PACKAGING

*It's no secret that Americans lead hectic lives. Our jobs, families, and personal interests seem to demand more time and energy than we have. We are also creatures of convenience. We eat in fast-food restaurants, drink bottled beverages, and buy processed foods for our own tables. The trouble is that while we are buying time for the present, we are selling out our future.*

*The culprit, of course, is packaging. You can see it strewn along our roadsides and washed up on our beaches. It is filling up our landfills at an alarming rate. And it requires cutting more trees and drilling more oil. For example, the resource requirements of making microwavable instant meals, with their disposable pans and multi-layer wrappings, are about ten times larger than preparing the same dishes at home from scratch.*

*The solution begins with awareness. When you are eating away from home or shopping, make note of all the bags, boxes, cartons, bottles, plastic wrap, and other packaging that will end up in your garbage can. Then begin thinking about what is good for the environment before making your next purchases. Ask yourself what will happen to the package when you are finished with it. Can it be recycled? Will it decompose in the environment if you throw it away? Or will it become a nuisance for your children's children? The process of asking these questions is called precycling.*

### TIPS TO PRACTICE PRECYCLING PACKAGING

- Carry your own reusable bag for your purchases. Canvas or nylon bags are ideal for keeping handy in the car; net bags are convenient because they don't take up much space in a purse or briefcase. Most stores give a credit, usually a nickel.
- While in the store, say, "I don't need a bag" to the checker whenever possible. Extra plastic bags for frozen items may not be necessary. Produce can often be left loose in the shopping basket.
- Select products that have little or no wrapping or are packaged in materials you can recycle.
- When you have a choice, select the package that has the higher value for recycling, for example a paper bag rather than plastic or a glass bottle rather than plastic. Glass bottles can be recycled indefinitely whereas plastic will likely be down-cycled (recycled into a lower grade item and then end up in a landfill).
- Shop where you can buy in bulk: a food store where you can scoop rice into your own bag; a hardware store where you can select unpackaged supplies; a meat market where the cuts are not prepackaged.



- Avoid packages made of plastic unless they are the types you recycle in your community.
- Avoid packages made of several layers of different materials that can't be separated (such as juice boxes made of paper, plastic, and aluminum).
- Avoid individually packaged products, such as pre-measured packets of cereal, each for a single serving.
- Select restaurants that use washable plates, cups, and utensils.
- Carry your own coffee mug with you for takeout beverages.
- Pack your own lunch, using durable containers.

Americans tossed out more than 37 million tons of containers and packaging in 2001—an increase of 270 percent since 1960. These containers account for about half of the total volume of household waste. It is an enormous problem. But, each of us can make a difference with just a few small changes in our habits.

If you're willing to do more, tell store managers what kinds of packaging you prefer. Complain to companies that overpackage or that use packages that are not recyclable or biodegradable. If enough people do this, the current unsustainable practices will change.