TAKING IT PERSONALLY

...little steps to a big solution

THE NAEM TIPS GUIDE

A Resource for Employee Engagement and Education

Why is Employee Engagement a Good Business Strategy?

Workforce education and participation are integral components to any successful sustainability program. Not only can employees help companies reach their corporate sustainability goals, quite often companies with engaged employees realize substantial energy, materials and costs savings. Furthermore with environmental sustainability becoming a mainstream concern, many companies already have employees proactively looking for ways to green their daily lives at home and at work but aren't sure where to start. **Because of this, NAEM created the TIPS guide as a credible, easy to understand starting point.**

What is the TIPS Guide and Why is it Important?

The TIPS Guide is a resource for companies and EHS and Sustainability Managers as they educate, engage and excite their employees about sustainability and opportunities to contribute on an individual basis. It offers specific information and personal tips for employees who want to reduce their personal environmental impacts. It is organized around 10 main issue areas such as water usage, waste reduction, yard and gardening, green at work, and sustainable shopping. Each two-page section offers an introduction to the issue, specific ways to take personal action and additional resources for those seeking to learn more about a topic.

The Development Process

Researched, Refined and Peer Reviewed

With so much information available on how to "green your life" and "get involved", NAEM recognized a need to provide an easy to read, user-friendly guide that individuals, such as yourself, could pick up and start using right away. The NAEM TIPS Guide showcases the best, most credible, and most effective tips and practices for reducing your personal environmental impact. The extensive research and review of thousands of green resources were carefully selected and refined, yielding hundreds of focused green information sources and productive tips for reducing your personal environmental impact. The information was then reviewed and refined even further by a dedicated group of leading environmental and sustainability managers from NAEM's membership.

Little Steps to a Big Solution

How to Get Started

NAEM member companies' employees represent hundreds of thousands of people, who collectively taking small steps to reduce their impacts, can add up to a huge positive impact. This guide was created to assist you in your sustainability efforts and we hope it will be widely adopted as an information source and tool for our member companies and any other organizations who are embarking on employee engagement journeys. Please feel free to download and distribute the free ready-made PDF version of this guide from the TIPs website: www.naem.org/tipsguide

Or if you're interested in customizing the guide with information about your company's programs and goals, please contact NAEM for details.

Taking It Personally

...little steps to a big solution

THIS GUIDE IS PRESENTED BY

About NAEM

NAEM is a non-profit that was created in 1990 by a group of corporate environmental and EHS management professionals. Our mission is to educate and advance the principles and practice of EHS management through peer-to-peer learning and to develop EHS & Sustainability managers as leaders in their companies.

Introduction 2

Why is Employee Engagement a Good Business Strategy?

What is the TIPS Guide and Why is it Important?

The Development Process

Little Steps to a Big Solution

Water 4

Is clean, safe drinking water an infinite resource?

Understanding Our Water Supply

10 easy ways to reduce your water usage

Energy, Greenhouse Gas, and Climate Change . . 6

Do you know where your energy comes from?

What is climate change and why does it matter to me?

Understanding How Your Choices Affect Global Climate

Why You Should Reduce Your Energy Consumption

15 easy ways to reduce your personal energy consumption and minimize your "carbon footprint"

Transportation and Commuting 10

What is the impact of my daily commute?

What it Costs to Get From Here to There

10 easy ways to reduce your driving impacts

Waste Reduction 12

When I throw something away, where does it actually go and what really happens to it?

A Closer Look at the Things We Buy, Use, and Throw Away

10 easy ways to reduce your waste

Food and Kitchen 14

What is the quality and quantity of food on your plate?

Taking Time to Learn Where Your Food Comes From

10 easy ways to keep your diet and kitchen sustainable

Sustainable Shopper 16

How can labels and logos help me shop for sustainable products?

Understanding the Power of Your Spending Choices

10 easy guidelines for being a sustainable shopper

Yard and Gardening 18

Why does it matter how we care for our own back yards?

How to Green Your Yard

10 easy ways to keep your yard and garden sustainable

Outdoor Recreation 20

What impact do you have on the outdoors?

Your Part in the Preservation of Outdoor Recreational Resources

8 easy ways to enjoy and protect the great outdoors

Conservation and Community 22

Why are local communities important to global sustainability?

How a Strong Community Improves the Quality of Your Life and Environment

8 easy ways to be a caretaker of your local environment

Green at Work 25

How to Start a Green Team

9 Easy Ways to Be Green at Work

Green Glossary 27

Acknowledgements 28

WATER

Q: **Is clean, safe drinking water an infinite resource?**

A: NO. While it appears we have a lot of water, it is sobering to realize that only 3% of the earth's water is fresh water. Out of that, only 1% is available for human use. If we continue to pollute and overuse our water sources, we can run out of clean and economical water sources. There will always be water on earth, but, will it be clean, what will it cost, and will we have access to it?

Understanding Our Water Supply

Our water resources are finite and need to be used and managed carefully. In North America, the five Great Lakes—Erie, Huron, Michigan, Ontario, and Superior, along with Lake Mead—are the largest surface freshwater sources on the Earth. Together they contain more than 20% of the world's fresh water supply. These vast, inland seas provide water for consumption, transportation, power, recreation, and a host of other uses. Despite their considerable size, they are sensitive to the effects of a wide range of environmental threats. Currently, the United States and Canada have identified 43 Areas of Concern (AOC) in and around these water sources that are experiencing severe environmental degradation including sediment and water contamination and impaired wildlife communities.

Other sources of water include local rivers and lakes as well as underground aquifers that supply water to wells. Each year, rainfall and snowmelt replenish only a small fraction of the water that we extract from these sources. The vast majority of the water we use is not replenished and both surface and underground sources have been significantly diminished. If this can happen at the Great lakes it can also happen to small local reservoirs or groundwater supplies. Water conservation and water quality protection are important measures that help ensure the sustainability of our water supply.

Quick Tip!

Put a 1/2 gallon jug of water in the tank to take up space so that each flush uses less water.

10 Easy Ways to Reduce Your Water Usage

1. **Drinking water:** Keep a pitcher in your refrigerator so you don't have to let water run to cool.
2. **Low Flow Toilets:** One of the best ways to avoid wasting water is to switch to low flow or dual flush toilets.
3. **Fix Leaks Promptly:** It is estimated by the EPA's Water Division that on average 14% of household water is wasted by drips and leaks.
4. **Aerators:** Install flow restrictor aerators inside all faucets for a savings of up to 3 to 4 gallons per minute per faucet.
5. **Full Loads**: Always run full loads of laundry and dishes. Choose the short cycle at low water levels whenever possible. If you buy a new appliance, switch to a water-conserving model (e.g.: front loading washer).

WATER

6. **Native Plants**: Landscape with native plants. This will cut down significantly on watering requirements and, in the process, provide much needed food and shelter to local wildlife. *Look into green landscaping.
7. **Best Time to Water**: Water at night or early in the morning to minimize evaporation.
8. **Leftover Water:** If you have house plants, whenever possible water them with leftover or unused water from drinking, cooking, and showering. Keep a water pitcher near your sink or bathtub and collect unused water running from the tap.
9. **Car Wash**: Take your car to a car wash that recycles water. If you wash it yourself, use a bucket and sponge and rinse sparingly. Try a waterless carwash.
10. **Showers:** Replace existing shower heads with the lowest flow product you can find. Shower heads with a mist setting let you reduce water flow even further. Consider setting a timer to keep your shower time as short as possible and consider turning the water off while you shave or lather up.

Learn More:

1. Learn how to use less and save more in this Chelsea Green Guide to protecting your Water.
2. Learn more about your drinking water at EPA's Ground Water and Drinking Water site.
3. Protect our water supply by following the steps outlined in How to Clean Up Our Water: 12 Simple Actions to Help Stem the Tide of Polluted Runoff.
4. Calculate your water footprint.
5. Learn from scientists at the American Water Works Association about your tap water.

Quick Tip!

**Check your water meter when no one is using water in the house. If it's moving there's a leak. A running toilet can waste 2 gallons a minute. Check by adding food coloring to the tank without flushing. After 10 minutes, look for leaks indicated by color in the bowl. This is most likely a worn flapper valve that can easily be replaced.*

ENERGY, GREENHOUSE GAS, AND CLIMATE CHANGE

Q: Do you know where your energy comes from?

A: If you live in North America, odds are that your home and office are dependant upon fossil fuels for electricity. According to the Energy Information Administration (EIA), a division of the US Department of Energy, in 2007 85% of U.S. energy was derived from fossil fuels, 8% from nuclear electric power and only 7% came from renewable sources like solar, hydroelectric, geothermal, biomass and wind energy.

That means that we derive the majority of our energy from sources that are finite, or nonrenewable, and at some point in the future will run out. Furthermore, fossil fuels contribute to environmental degradation from the impacts of mining and drilling, spills, and by emitting greenhouse gasses (GHGs) when they are burned for energy.

Q: What is Climate Change and why does it matter to me?

A: Over the past 200 years, the burning of fossil fuels, such as coal and oil, coupled with a global trend toward deforestation, have caused concentrations of heat-trapping "greenhouse gases," (GHGs), to increase significantly in our atmosphere. These gases, which include carbon dioxide (CO_2) and methane (CH_4), prevent heat from escaping to space, somewhat like the glass panels of a greenhouse. This greenhouse effect causes global warming, which is responsible for changes in weather that include more severe storms, altered growing seasons, melting polar ice and rising sea levels. These changes have been collectively called climate change.

Understanding How Your Choices Affect Global Climate

The scientific community has come to agree that the primary cause of climate change is the burning of fossil fuels for energy, which releases large amounts of carbon dioxide, a GHG, into the atmosphere. While the impacts of these changes on our climate are hard to predict with total certainty, cientist warn that climate change could have catastrophic consequences for our planet. For example, coastal sea-level rise due to melting of the polar icecaps could affect urban areas around the world and damage coastal infrastructure, aquifers, and wetlands.

According to the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA), the Earth's average surface temperature has increased by about 1.2 to 1.4°F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998 with the warmest year being 2007.

ENERGY, GREENHOUSE GAS, AND CLIMATE CHANGE

Quick Tip!

It's really quite simple: If you can measure it, you can manage it. You can make small adjustments throughout the day and see how the savings add up.

Since the burning of fossil fuels is the number one driver for climate change, there are many choices that we can make that will lessen our impact. These choices include how we travel, what food we eat, how energy conscious we are at home, and what products we buy. The following suggestions will provide specific ways that you can reduce your "carbon footprint," the amount of greenhouse gases that an individual releases into the atmosphere. On an individual level these changes may seem insignificant, but if people around the world change their behaviors, collective emissions of GHGs can be greatly reduced and the risks posed by global climate change reduced.

Why You Should Consider Reducing Your Energy Consumption

Reliance on non-renewable energy sources, like fossil fuels, will all need to continue into the near future until the cost and technology for renewable forms of energy improve; therefore, we need to be good stewards of our energy use. Every little bit matters in securing our energy future. If we look around, we all can find opportunities to reduce energy consumption in our homes and offices, and many of them are fairly easy to implement!

The benefits of reducing your energy consumption include financial savings, reductions in greenhouse gases (GHG) and air pollution, as well as ensuring that future generations will have enough energy to meet their needs. If we work together to each reduce our energy consumption, we will collectively have a big impact on the future of our planet!

15 Easy Ways to Reduce Personal Energy Consumption and Minimize Your "Carbon Footprint"

1. **Set Goals and Measure Progress**: To reduce your energy consumption, you must first determine a baseline to start reducing from. Track your utility (gas and electric) bill and strive for reductions. Consider purchasing a power meter to monitor the electricity usage of appliances, The Energy Detective or the Kill-A-Watt Meter.
2. **Do a Home Energy Audit:** Many utility companies provide free home energy audits to help consumers identify areas in their homes that may not be energy efficient. Many utility companies even offer rebate programs to help pay for the cost of energy-efficiency upgrades.
3. **Don't Overheat or Cool**: Turning your thermostat up or down a couple of degrees can have a significant impact on your annual energy usage and utility bills. Turn the heat/air conditioning down when you leave the house or go to bed. Installing a programmable thermostat can significantly curtail energy usage while keeping you comfortable. Ceiling fans can also cut costs for heating and cooling.
4. **Drive Less and Drive Smart**: Less driving means fewer emissions. Explore your community's mass transit system, and options for carpooling to work or school. Consider telecommuting (working from home) one or more days a week.

ENERGY, GREENHOUSE GAS, AND CLIMATE CHANGE

Quick Tip!

Replacing one regular light bulb with a CFL will prevent 1 ton (2,000 lbs) of CO_2 emissions over its lifetime.

5. **Strive for Efficiency:** Consider efficiency when buying appliances and automobiles. Look for the EPA "Energy Star" rating when purchasing new appliances to ensure that your stove, refrigerator, washer, dryer, air conditioner, or dishwasher will save energy and money over its life cycle.
6. **Change a Light Bulb:** As regular light bulbs burn out, replace them with compact fluorescent lights (CFL)s. Replacing just one 60-watt incandescent light bulb with a CFL will save you $30 over the life of the bulb and use two-thirds less energy. If you are installing new lights, consider purchasing more energy efficient Light-Emitting Diodes (LEDs). They have an average life span of 100,000 hours (vs. 1,500) and reduce energy consumption by up to 90%
7. **Eat Local:** Buy food from local farms or companies whenever possible. Food that has to travel long distances to arrive at your plate consumes fossil fuels and creates GHG emissions. Support your area's local farmer's market. If possible, grow your own fruits and vegetables. Visit Local Harvest to learn more about the benefits of eating locally.
8. **Standby Power:** Reduce "standby power" (the energy used while an appliance is switched off or not performing) at home and work. The easiest way is to unplug appliances that are not being used. You can also plug your appliances into power surge protector strips (with multiple electrical outlets) and turn the power off at the strip.
9. **Insulation and Home Shade:** Insulate your hot water heater (a tank that is warm to the touch needs added insulation), as well as hot water pipes and ducts located in unheated areas. In hotter climates, if you have west and/or south facing windows use window tints, blinds, and bushes, trees or trellises to help keep heat out during the summer months.
10. **Use the Off Switch:** When you leave a room, turn off the lights. Whenever possible, turn lights off during the day. Remember to turn off your television, video player, stereo and computer when you're not using them.
11. **Reduce Waste**: A reduction of household garbage by 10% can save 1,200 pounds of carbon dioxide emissions per household annually. Recycling, reusing, and selective purchasing can reduce your solid waste generation.
12. **Use Less Hot Water:** Wash clothes in warm or cold water. About 90% of the energy used for washing clothes in a conventional top-load washer is for heating the water. Consider turning down your water heater to around 120 degrees.
13. **Air Dry when possible**: For both laundry and dishes, air dry when possible. This will save on electricity normally needed to run clothes dryers and power the dry cycle on your dishwasher.
14. **Carbon Offsets**: If you are taking a trip by plane, consider buying carbon emission offsets. Doing this will help fund projects that capture and reduce the amount of GHGs entering the atmosphere and encourage clean, renewable energy production.

15. **Plant a Tree:** If you have the means to plant a tree, start digging. During photosynthesis, trees and other plants absorb carbon dioxide and give off oxygen. A single tree will absorb approximately one ton of carbon dioxide during its lifetime. If you are unable to do it yourself, organizations such as the Arbor Day Foundation will plant trees on your behalf, and many local conservation organizations have programs to plant trees in parks and urban areas.

Learn More:

1. Visit the Powerhouse web page to read about 101 things you can do in your home to reduce energy use and costs, organized by different areas in your home.
2. Calculate your own contribution to climate change with this Carbon Footprint Calculator.
3. Learn some healthy habits to reduce your energy consumption on the NRDC website.
4. Learn how to live smart and green with these Smart Energy Living Resources.
5. Energy Efficiency and Renewable Energy Network site
   The Department of Energy has some tips to reduce your consumption.
6. Learn more about climate change and the action being taken to deal with it from the world's leading scientists at the Intergovernmental Panel on Climate Change.

Quick Tip!

Turn down the heat while you are sleeping at night or away during the day, and keep temperatures moderate at all times. Setting your thermostat just 2 degrees lower in winter and higher in summer could save about 1 and a half tons of carbon dioxide from entering the atmosphere each year.

TRANSPORTATION AND COMMUTING

Q: **What is the impact of my daily commute?**

A: It is bigger than you think. Individual gasoline powered travel produces large amounts of air pollution and greenhouse gases that contribute to global climate change. In most urban areas, automobile emissions contribute to existing air quality and smog problems that can have potentially severe health effects.

What it Takes to Get From Here to There:

1/3rd of the carbon dioxide emissions in the U.S. are produced by automobiles driven each day. An average car driven 12,000 miles per year will emit about 6 tons of CO_2. It would take 500 mature trees to absorb this amount of CO_2. Consider the impact of your daily driving and travel habits and take steps to reduce them. Awareness and planning are often all it takes to get you to where you want to go with less harmful consequences for the environment and the air we breathe. Take it one step at a time knowing that each step you take contributes to making a big difference.

If all 230 million cars operated in the U.S. were driven one less day per year, the nation would reduce its fuel consumption by 170 million gallons per year. A bus with as few as seven passengers is more fuel efficient than the average car with one occupant used for commuting. By reducing the amount of single driver travel we can make great progress in protecting our environment, our wallets and our health. Before you head to work or any other destination, make sure you know all of your options for getting from one place to another.

10 Easy Ways to Reduce Your Driving Impacts

1. **Use Public Transportation:** Americans in metropolitan areas save thousands of dollars each year by taking public transpiration. You can also integrate public transportation into your commute by driving to a commuter parking lot and taking a bus or train.

   Find out if your employer will reimburse you for weekly or monthly transit passes. Find a Local Public Transportation Service in your area.

2. **Carpool:** Learn about carpooling options offered by your employer or organize one with your co-workers. Carpooling saves you money while reducing air pollution, road congestion, and fuel use, and almost everyone can do it. Try to organize a carpool for your family's sports and activities too.

3. **Telecommute:** Conduct business from your desk or home office instead of flying and driving to meetings by utilizing online solutions that enable you chat, video conference, give a presentation, and share/edit documents across the world. This saves time and money while reducing emissions and saving energy/fuel. Learn More about telecommuting.

4. **Use Your Own Steam:** By simply walking or riding a bike you are having a positive impact on your physical health and the environment. You'll develop your muscles, improve cardiovascular health, reduce congestion, and generate zero emissions.

Quick Tip!

Keep your car tires properly inflated. Doing so greatly increases efficiency and saves money by reducing fuel consumption.

TRANSPORTATION AND COMMUTING

Quick Tip!

Take it easy and don't rush! Smooth acceleration and braking can help save gas and reduce wear and tear on your vehicle. Drive 60-65mph on the highway, and the speed limit everywhere else. Cars run most efficiently at 60 mph, and you can save a whopping 20-30% on fuel by sticking to that speed.

5. **Plan Your Trips:** When you are running errands or planning a trip, make sure you know where you are going before you leave the house. Map out your route for efficiency and combine trips whenever possible.
6. **Service Regularly:** A well maintained and properly tuned car can improve performance by 40%. Get the oil changed, check the brakes, exhaust and tire pressure. A well-kept car will consume less fuel, pump out fewer GHGs and also last longer, which in the long-term helps the environment and extends the life of your car.
7. **Efficiency/Hybrid Options:** Consider fuel efficiency when making your next car purchase. Look for fuel efficient cars and motorcycles as well as hybrid vehicles which run on both electricity and gasoline. Check out the EPAs Green Vehicle Guide and learn more about hybrid vehicles at HybridCars.org.
8. **Be Smart About the A/C:** Don't use air conditioning when you don't have to. Short trips and in town driving will use less gasoline if you leave the A/C off. Drive with the windows up on long trips to reduce drag and get better gas mileage. You actually save gasoline if you use A/C on the highway rather than having the windows open.
9. **Don't Idle the Engine:** A car idling emits up to 20 times more carbon than a car going 32 mph. That pollution indicates something else: wasted gasoline, up to a half a gallon every hour. If you know you'll be waiting in one place for several minutes, find a parking place and turn off your engine.
10. **Remove Roof Racks:** If you have roof racks or cargo carriers installed on your car, remove them when they aren't in use. They reduce aerodynamic efficiency, which increases fuel consumption.

Learn More:

1. Connect with other eco-minded commuters at http://www.ecotrotters.com/.
2. Find out more about the impact of you car and commute at http://fueleconomy.gov/.
3. Learn about the impacts of transportation on water at http://www.cwac.net/transportation.
4. Know and reduce YOUR Impact: http://lowimpactliving.com.
5. Find out how your commute affects the air from the Clean Air Council: http://www.cleanair.org/Transportation/transHome.html.

WASTE REDUCTION

Q: When I throw something away, where does it actually go and what really happens to it?

A: There is no *"away."* When you throw out your garbage, it is either burned in an incinerator or more likely, ends up in a landfill. Most of the garbage we have sent to landfills in our lifetime is still there and will stay there for many years to come. It doesn't go "away" or disappear.

Quick Tip!

Always try to buy products made with recycled material, especially disposable paper products like paper towels, plates, tissues and toilet paper.

A Closer Look at the Things We Buy, Use and Throw Away

The Clean Air Council estimates that in 2007, U.S. residents, businesses, and institutions produced more than 251 million tons of solid waste, which is approximately **4.6 pounds of garbage per person per day**. According to the United States Environmental Protection Agency, more than 80% of the material that entered the waste stream in 2007 was disposed of in landfills while the other 20% was burned in incinerators with energy recovery. While the number of landfills in the U.S. has been decreasing over the past few decades, new waste management facilities are larger. However, most garbage in landfills never fully decomposes or decomposes at an extremely slow rate largely because the air and water necessary for decomposition cannot reach the waste. Waste incineration involves the application of combustion processes under controlled conditions to convert waste materials into inert mineral ash and gases. Incinerators are also designed to capture some of the energy produced from burning waste and to minimize environmental impacts, but some, like air pollution and ash disposal, persist.

Thinking a little can save a lot. Waste reduction has many environmental benefits. It prevents emissions of many pollutants including GHGs, saves energy, conserves resources, and reduces the need for new landfills and incinerators.

10 Easy Ways to Reduce Your Waste

1. **Reduce, Reuse, and Recycle:** Practicing these three R's can greatly reduce the amount of waste you produce. By reusing more and buying less, you can save money as well as resources. Try selling or donating things like clothing, appliances, and furniture that you no longer want or use. For those things that need to be disposed of, always try to recycle before sending them into a landfill. Learn more about Recycling Facts.
2. **Shopping Bags:** While shopping, if you only buy a few products skip the shopping bag. For larger purchases, bring your own reusable bag. Learn about the Dangers of Plastic Bags.
3. **Pass up Trash**: Don't accept "free" promotional products or utensils/containers that you don't need or want. Look for products with the least amount of packaging. Every little bit of trash avoided does make a difference!

WASTE REDUCTION

Quick Tip!

Used oil from one oil change can contaminate 1 million gallons of fresh water — a year's supply for 50 people! Safe recycling of your used motor oil is easy to do:

- *Being careful not to spill, put your used motor oil in a clean plastic container with a tight lid. Never store used oil in a container that once held chemicals or food.*
- *Do not mix the oil with anything else, such as antifreeze, solvent, or paint.*
- *Take used motor oil to a service station or other location that collects used motor oil for recycling.*

4. **Buy in Bulk**: Purchasing things in bulk containers can save money and reduce packaging waste. When possible, avoid products that are individually packaged for single use. Instead, buy in bulk and transfer the products to your own reusable containers. When buying in bulk, avoid overbuying which can create more waste from the disposal of spoiled, outdated or excess product.
5. **eCycling:** Donate old or unwanted electronics such as computers and TVs. Many electronics contain materials that are considered toxic and should not be disposed of in a landfill. If your community doesn't have a recycling program or center for used electronics, contact the manufacturer of the product (or the manufacturer of the new one you just purchased or plan to purchase) to see if they have a recycling program for obsolete units
6. **Waste-Free Lunches**: Pack a Waste-Free Lunch whenever possible in a lunchbox or reusable bag. Bring a mug or thermos with you instead of using a disposable cup.
7. **Compost**: At home or wherever possible, compost organic waste. Food scraps and other organic materials will break down naturally and return vital nutrients to soil. Learn more about composting in the Yard and Gardening section of this guide and here: Frequently Asked Questions About Composting: (Link here)
8. **Dodge Disposables**: Whether it is paper plates and plastic utensils or a safety razor, disposable products produce a lot of waste. When and where possible, choose more durable, reusable products that will last longer. Some reusable products to consider using to save money and waste are metal utensils, washable plates, and rechargeable batteries.
9. **Junk Mail**: Stop unwanted mailings and recycle any that you do receive. Join the junk mail revolution at www.donotmail.org and get rid of catalogs in the mail at Catalog Choice. If you still wish to get information from your favorite retailers, sign up for their e-mail list.
10. **Give Waste Free Gifts:** Offer/ask for gifts that don't produce waste. Examples include donations to charity, seeds from your garden, tickets to an event (lecture, play, concert, etc.), or gift certificates for spas and music/movie downloads.

Learn More:

1. Find out where to recycle almost anything: www.earth911.com
2. Visit Keep America Beautiful on the web: www.kab.org
3. Explore the World Health Organization's database about what to do with old and unwanted materials.
4. Check out easy ways to reduce your waste by Chelsea Green Guide.
5. Consult the Environmental Protection Agency's web page on waste.

FOOD AND KITCHEN

Q: What is the quality and quantity of the food on your plate?

A: One study done at Rutgers University in 2007 on the "State of the American Diet" confirms that most Americans have poor eating habits. This comprehensive study, which analyzes trends in how and why Americans eat what they do, found that Americans ages 2-19 consume nearly 3 times the recommended daily amount of sugar and most do not eat enough fruits, vegetables or whole grains. Dietary factors like these have led to increased obesity in Americans.

Taking Time to Learn Where Your Food Comes From

If you are like most Americans, you probably struggle to find the time to shop for and prepare balanced healthy meals on a daily basis. As important as what you put on your plate is where that food comes from and how it gets to you. The production of the food you eat every day can come at a great cost to the environment. Deforestation, habitat loss, pollution of air and water can all be the result of the growing and transporting of the crops and raising of animals that support our diets. Making environmentally conscious choices about what we buy and use in our kitchens can support more sustainable production of the foods we enjoy. **The more you know about how your food is produced and where it comes from, the easier it will be for you to make sustainable food choices in your own kitchen.**

Quick Tip!

Flip over the box and compare product that are labeled natural and organic to regular foods.

10 Easy Ways to Keep Your Diet and Kitchen Green

1. **Watch What You Eat:** Think about your food choices when you go grocery shopping. Some questions to consider are: Is this product from a nearby source or does it travel hundreds or thousands of miles to get to me? Is it in season? How much can I actually use? How was it raised or harvested?
2. **Enjoy a Glass of Local Water:** Drink water from the tap, and take it with you in a reusable bottle instead of drinking bottled water. Drinking water is a great way to cut down on sugar intake and filling your reusable water bottle from the tap reduces waste and pollution from the packaging and transport of bottled water.
3. **Eat Local**: Buy food from local sources whenever possible. Support your area farmer's market or food cooperative, where you and your family can learn how the crops and livestock are grown. Each pound of local food you purchase prevents a quarter pound of GHG emissions. Becoming a "locavore" reduces the handling and preservation of your food as you minimize the time and distance from the farm to your dinner table. To go even more "local", consider devoting part of your yard to growing vegetables or fruit. Even small container gardens can yield fresh produce right outside your door or window.
4. **Go Organic**: Choose food that is Certified Organic by the USDA. This means that food is produced using natural rather than chemical pesticides and fertilizers.

FOOD AND KITCHEN

Quick Tip!

When buying anything, consider the "food miles" travelled for a product to reach you. These days everything is available all year round, but consider whether or not it is in season locally or halfway around the world. By buying things that are produced locally, or at least closer to home, our kitchens and diets can help reduce pollution and global warming GHG emissions.

5. **Eat Less Meat:** Meat production and processing uses more land and energy than vegetable crops. By choosing to eat one meat-free meal a week, you can reduce your contribution to GHG emissions and help ensure that everyone has enough to eat. Alternate sources of protein can be found in a wide variety of legumes, grains, vegetables, fruits, nuts, and seeds.
6. **Genetically Modified Organisms (GMO)**: According to the United States Office of Science Genome Project, genetically engineered food crops, while providing larger and more resilient crop yields, have the potential to reduce the long term viability of our food supply. By hindering natural selection and adaptation of plants and animal, GMO production could make our food supply highly susceptible to diseases and adverse weather conditions. Educate yourself about GMOs to make an informed decision about your food.
7. **Organic Waste:** By composting or putting organic wastes down a garbage disposal, you can reduce the amount of organic matter that enters the waste stream. Composting returns the nutrients from vegetable wastes (peels, seeds, cores, rotten produce) back to your own yard and garden.
8. **Don't Double Wash:** Conserve water by not pre-washing dishes that are going into the dishwasher. While some dishes require an extra scrub, pre-washing everything is unnecessary and wasteful.
9. **Sustainable Seafood:** Many fish populations are being threatened by over fishing. Learn more about smart seafood choices and the dangers of mercury contamination at EarthEasy. Choose Tuna that is labeled "dolphin safe". When purchasing seafood at the grocery store, consider whether it's domestic or foreign, wild or farmed.
10. **Keep it Natural:** Products found in most kitchens (including vinegar, baking soda, and lemon juice) can be used as powerful natural cleaning agents in the kitchen. Consider buying and using natural cleaning products to keep your home and kitchen clean and smelling fresh.

Learn More

1. Find a local farmers market or Co-Op at http://www.localharvest.org/.
2. Find out more about nutrition and what's in food versus what we need.
3. Learn how to make your table sustainable at http://www.sustainabletable.org.
4. Learn about environmentally friendly products from the Great Green List.
5. Watch what you eat with the Food and Water Watch.

SUSTAINABLE SHOPPER

Q: How can labels and logos help me shop for sustainable products?

A: It's important to know the facts about the labels that help you make decisions when you shop. Do you know which labels you should be paying attention to? They contain valuable and useful information about how a particular item was grown, harvested, produced, synthesized, processed, tested and/or packaged. Knowing how to interpret labels and environmental logos helps us make informed decisions at the checkout. *Consumer Reports* has recently launched a comprehensive web site devoted to helping you interpret and understand "green" labels and logos: Greener Choices.

Quick Tip!

When buying anything, consider the entire Life Cycle of the product. How were its source materials acquired and what will happen to them once you are done with the product?

Understanding the Power of Your Spending Choices

In our society the goods available are determined by supply and demand. If you ask for more sustainable products, you are in essence influencing demand. Buying a product is an inherent endorsement of its value, or in other words, like casting a vote for it. The more times you 'vote' for sustainable products, the more likely there will be options and supply of those products in the store when you go shopping; your voice is in your wallet. By making informed choices and keeping the environment in mind when you shop, retailers will listen. The choice to buy environmentally responsible products is not always the lowest cost or easiest solution, but it can make a big difference in the quality of the environment and your life. As more people buy "green" products, their availability will increase, and their cost will decrease.

10 Easy Guidelines for Sustainable Shopping

1. **Bring Your Own Bag:** When shopping, bring your own reusable bag(s) instead of taking the paper or plastic bags offered. Try skipping the bag altogether, but when you do need to take a bag, save it and bring it back to reuse the next time.
2. **Free-Range and Organic**: Buy organic and "free-range" animal products. They are raised and processed in more humane and sustainable ways. Find Out More About Meat Labels
3. **Buy Less:** Part of being a responsible consumer is knowing how to resist the temptation to buy. Buy only what you need and will use.
4. **Buy Things That Last Longer:** Spend a little more for something that will last a long time. In many cases, spending a little more on a higher quality product can save money in the long run, especially when it comes to appliances, vehicles, and building materials.
5. **Second Hand/Hand Me Downs:** Use or donate old clothes, books, sports equipment, toys, household goods and appliances, and consider purchasing these items second-hand. Thrift/second hand stores, swap meets, and rummage/estate sales are great places to get clothes for costumes, sports equipment (especially for children) as well as household goods, books, and furniture.

SUSTAINABLE SHOPPER

Quick Tip!

When buying personal care or health and beauty aids like shampoo, soap and toothpaste, look for non-toxic and organic products. More and more brands are becoming widely available that use natural plant extracts instead of synthetic chemicals. Consider buying products that are made without animal products, like mineral makeup, in addition to those not tested on animals.

6. **Recycle and Reuse:** Strive for bigger recycling bins and smaller trash bins. Pay attention to what you can reuse first before buying something new. Consider packaging waste in comparing products and encourage recycling by buying products made and packaged with recycled materials.
7. **Encourage Preferred Goods:** Let your grocer know that you would like to see more sustainable goods available. Check out your local food co-op and start supporting local goods when they are available to avoid the added costs and impacts of transporting products across the country or around the world.
8. **Eco-Electronics:** When choosing electronics, try to buy from a manufacturer that has a program in place to take the product back and recycle it after it has reached the end of its useful life. Take advantage of recycling programs for disposable items such as printer cartridges, and community recycling days for electronics and hazardous materials.
9. **Fair Trade:** Fair Trade Certified products are grown, harvested, and processed under strict regulations to guarantee environmentally sustainable farming. Fair Trade Certified means that the farmers and workers who grow and process products work under fair labor conditions and are paid a fair price for their goods. Learn more about Fair Trade at www.transfairusa.org.
10. **Strategic Grocery Shopping:** Make a list and only buy what you need. Overbuying, especially of perishable items leads to unnecessary waste of food, goods, and money.

Learn More

1. Check out this guide to greening your home: (www.greenhomeguide.com).
2. Buy everyday necessities that are better for you and the environment at http://www.buygreen.com/.
3. Eco Logo has great references for environmentally friendly purchasing.
4. http://www.sustainablestyle.org/ has great ideas on how to stay in style sustainably.
5. Check out National Geographic's buying guide!

YARD AND GARDENING

Q: Why does it matter how we care for our own back yards?

A: The way in which we care for our yards and gardens can play an important role in the health and wellbeing of our families and community. Our decisions and efforts at home, inside and out, eventually affect our local ecosystem and watershed. Our yards and gardens are pieces of the environment that we can easily impact. By making informed decisions and properly managing our yards, they can provide us with food, shade, and comfort.

How to Green Your Yard

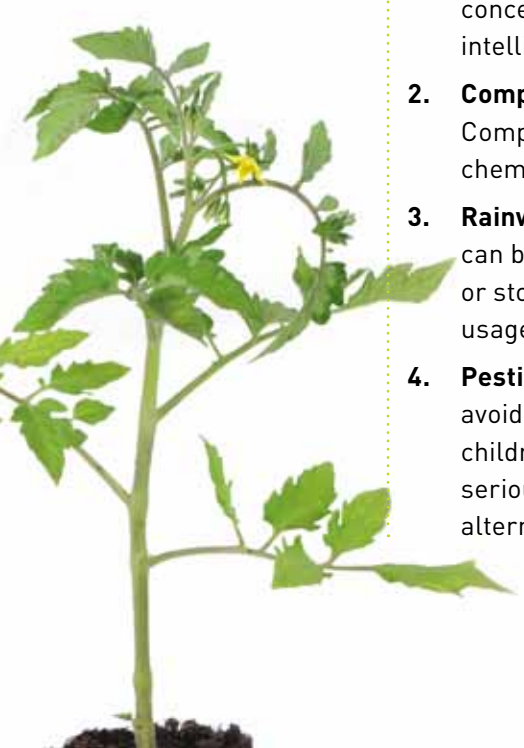
The simplest and healthiest approach to yard management is to maintain it in its most natural state. Quite often today, we sculpt our yards into unnatural arenas and plant attractive plants before we understand how much energy, water and artificial support they will require to survive in our local climates. Think about what would happen to your yard if you just let it run wild. What types of plants (shrubs, trees, grasses, flowers) would grow naturally? When possible, plant native trees, shrubs and grasses in the appropriate positions in your yard according to sunlight. Native plants and trees will thrive with little maintenance work or need for excessive watering or fertilizers.

Quick Tip!

Have a practical garden. Plant a few things that you use a lot in cooking and expand from there to experiment with new foods. Herbs are always easy to grow and taste best fresh!

10 Easy Ways to Keep Your Yard and Garden Sustainable:

1. **Gardening**: Growing your own fruits and vegetables is a great way to save money and reduce pollution. Whenever possible it is better to grow than buy produce. With growing concerns over food safety, taking your family's nutrition into your own hands is both intelligent and empowering.
2. **Composting:** Composting provides important nutrients for your organic garden. Composting is a great way to dispose of organic wastes and replace unnecessary chemical fertilizer. Learn more at The Composting Council of Canada.
3. **Rainwater:** Keep an empty barrel or tub under a downspout to collect rainwater that can be used to water your garden. This water would otherwise be diverted into sewers or storm drains. Consult local laws and regulations regarding rainwater collection and usage to learn your water rights.
4. **Pesticides and Herbicides**: Harsh chemicals to control weeds and insects should be avoided when possible. These chemicals can be dangerous to people and pets, especially children. Chemicals applied to plants and lawns can also pollute groundwater and have serious environmental consequences beyond your yard. Try using some of the natural alternatives available at Gardens Alive.



YARD AND GARDENING

Quick Tip!

Keep a chemical free yard. Natural fertilizers and growing methods can increase garden yields and keep your yard green in every way. Leave grass clippings from mowing on your yard to enhance the quality of the soil. Try natural weed and pest control methods instead of putting yourself, your children, and your pet at risk from exposure to harmful chemical herbicides and pesticides.

5. **Organic Gardening**: Go organic! Use compost to fertilize your garden and use natural pest control solutions when possible. Here are some basics on organic gardening.
6. **Mind your Mowing:** Make sure to keep mower blades sharp to increase efficiency and consider using an old-fashioned push mower, which can burn calories and avoid the use of fuel or electricity to power conventional mowers.
7. **Native Garden:** Get to know the specific ecosystem your home is located in and select plants native to this ecosystem. This is very important and can determine the success or failure of your yard. Choosing native plants can minimize water consumption as well as providing food and habitat to local wildlife with the least human maintenance. Learn about creating a native garden from eNature.
8. **Mulching:** Mulching your garden reduces water evaporation around plants, keeps out weeds and builds healthy soil. Leaving grass clippings on your lawn instead of bagging them helps keep your yard naturally fertilized and maintains moisture in the soil.
9. **Xeriscaping:** The climate and weather conditions of your area should largely determine the kind of plants in your yard. If you live in a dry area with limited water, like much of the American southwest, consider Xeriscaping. Find out more about this landscaping technique here.
10. **Backyard Wildlife Habitat:** A wildlife habitat or "naturescape" can be created in your own backyard. Basic elements include fresh water and feeders, and rocks, trees, bushes and/or bird houses for shelter and nesting.

Learn More:

1. Sustainable yard and garden information: Earth Easy.
2. Backyard Wildlife Habitat Information from The National Wildlife Federation.
3. Learn more about organic gardening at: www.organicgardening.com.
4. Toxicity and regulatory information for pesticides at http://www.pesticideinfo.org/.
5. Dawn of a New Lawn provides inspiration and information on switching to native plants.

OUTDOOR RECREATION

Q: What impact do you have on the great outdoors?

A: Outdoor recreation has profound impacts on human health and wellbeing while making large contributions to local and regional economies around the world. Organized sports as well as recreational activities utilize the natural resources provided by our planet's lands, forests, streams, mountains, rivers, lakes and oceans. In addition to enjoying what nature has provided for us, we also need do our part to protect it. Access, education, and awareness are important aspects of how, where and how often people enjoy recreational activities in the great outdoors. Increased utilization of these resources by more people has the potential to degrade, damage and even destroy natural recreational resources and features.

Your Part in the Preservation of Outdoor Recreational Resources

Educated and informed citizens, along with larger local, state, and national conservation programs are vital to the effective usage and maintenance of these resources. By learning more about where you camp, hike, climb, and swim, you can do your part to protect the natural resources we use for recreation so that they remain in tact for future generations to utilize, enjoy, and appreciate. The choices you make at home before heading out into the great outdoors, from destination to equipment, can have an important impact upon the environment. With care and the right information, we can all be good stewards of the resources of nature.

Quick Tip!

If you need help finding the ideal hiking trail, visit www.trails.com for a comprehensive list of trails and topographical maps for hiking, mountain biking, paddling, skiing, hot springs, and climbing.

8 Easy Ways To Enjoy and Protect the Great Outdoors

1. **Go Outside**: When the weather is nice, get outside and try canoeing, kayaking, hiking, climbing, or rowing instead of hitting the gym or indoor sports complex.
2. **Be Informed:** Learn more about the outdoors from a local or online outdoor education class. Utilize information about state and national parks and forests from the National Parks Service.
3. **Leave No Trace**: Abide by "Leave No Trace" principles, which outline a way to camp and hike without having a negative impact on the natural environment. When you are out hiking, pick up trash along the way and dispose of it properly so you are packing out more than you pack in. Leave things as they are so that others can enjoy them after you leave.
4. **Don't Be a Contaminant:** Use natural bug repellents and sunscreen that are both better for you and the environment. Before diving into a body of water, make sure that you rinse off on land if you are wearing bug spays or heavy sunscreen so as not to harm or pollute delicate water ecosystems.

OUTDOOR RECREATION

Quick Tip!

When camping, be aware and respectful of your surroundings. When setting up camp be mindful of wilderness tracks and habitats. This not only keep you safe from wandering wildlife, but also minimize the disturbance you create while getting back to nature. Carefully locate and enclose fire pits to minimize the danger of starting a forest fire. Fires should always be attended and extinguished properly when left unattended.

5. **Use Muscle Power Instead of Motor Power:** Choose a rowboat on your next fishing trip. Ride your bicycle to the park instead of driving. Park your car in designated areas and walk a little farther. Get gear that will be lightweight and easy to carry — soft-sided coolers and picnic backpacks can be a big help.
6. **Ditch Disposables:** Pack your picnic in reusable containers instead of disposables, or save and wash disposables for multiple uses. It's easy, cheaper, and makes a difference.
7. **Wildlife Watch:** In North America, help to track bird and frog populations for scientific studies with Frogwatch USA and Citizen Science. You can contribute to important scientific research while observing animals and getting out into nature.
8. **Buy Eco-Friendly Outdoor Equipment**: When you need to replace a piece of equipment that can't be repaired, keep in mind what you are buying. Look for snowboards made of bamboo, kayaks made from by-products of fossil fuels, or surfboards made from balsa wood certified by the Forest Stewardship Council.

Learn More

1. Learn about ecotourism at www.ecotourism.org.
2. Learn more about the global effects of ecotourism from the world tourism organization.
3. Consider volunteering with American Trails to plan, build, maintain, and manage trails in your area: www.americantrails.org.
4. Parks: Visit and help support local parks. In the U.S., reserve a campsite at a National Park through the U.S. National Park Service Reservation Center or Reserve America (includes some state parks).
5. Check out Leave No Trace Center for tips on camping, climbing, and hiking, and environmental stewardship and ethics.

CONSERVATION AND COMMUNITY

Q: Why are local communities important to global sustainability?

A: The old adage that the whole is the sum of its parts is useful for understanding the connection between community and global sustainability. By connecting with others to care for the environment we are better able to adapt to changes in the economy, energy availability, as well as the environment and climate. The stronger our local communities, the stronger and more stable our national and global community becomes. One of the best ways to support a sustainable world is to get involved in your own community!

How a Strong Community Improves the Quality of Your Life and Environment

We all have the power to shape and contribute to the community in which we live. Whether you are already involved in a local church, social or civic organization or are looking to get more involved, reaching out and being active in your community can have a huge impact. Community organizations, from school boards to homeowners associations, along with businesses and employers have the power to make a difference in the environment where we live, work and play. The building of strong community relationships with your friends, neighbors, and co-workers, coupled with a strong understanding of the issues and science behind environmental sustainability, are the basis upon which grassroots environmental action and stewardship depend.

Quick Tip!

It's time to get off the sidelines and get involved! Donate your time and sweat to build a local home with habitat for humanity.

People, Planet, and Profit

Sustainability is not just about the physical environment, but the people who live in it as well. Social sustainability has long been part of the "triple bottom line" (people, planet, and profit) model of business and is integral to supporting and complementing any sustainability effort. Explore how you as an employer or employee can engage your profession and co-workers in strengthening your community for the good of the planet.

10 Easy Ways to Get Involved and Be a Caretaker of Your Local Environment

1. **Connect with your Community:** The first step in promoting a sense of community is getting to know your neighbors. Connect with people in your area with shared interests, professions, hobbies, and causes. If you have trouble finding an existing group that matches your interests, check out this guide to starting your own. Connect your existing interests to the environment!

CONSERVATION AND COMMUNITY

Quick Tip!

Getting involved in your community is a great way step into the role of active local citizen. And if an opportunity arises with a chance to give locally, perhaps the employees in your company will be moved to volunteer alongside you. Working together with your friends, family and coworkers, you can reap the benefits of strong community relations to your own life and natural environment.

2. **Learn About Your Local Environment**: Do you and your neighbors know the environmental quality of where you live? Is it safe to swim at your favorite beach? How can you help protect the local source of your drinking water? Find out more at EPA's community website.
3. **Restoration Projects:** Organize or join a community group to clean up a local stream, highway, park, or beach. For opportunities to do restoration work for a local organization, check out VolunteerMatch or talk to your employer about integrating environmental service projects into their social responsibility and sustainability initiatives.
4. **Buy Locally:** Not only does shopping locally reduce food miles and the pollution associated with transporting food, it also keeps resources circulating in the community. Plus, it's a great way to get to know your neighbors. When did you last chat with the person who grew your tomatoes? Sites like Local Harvest in the U.S. can help you locate suppliers and farmers markets. You can also often find unique or locally made gifts and home goods at smaller local retailers. Encourage your employer to give back to the community by using locally sourced items that include everything from office supplies to raw materials.
5. **Start a Community Garden**: If space or agricultural knowledge is an issue, consider joining a community garden. None in your area? Start one! The American Community Gardening Association web site has extensive resources on how to find or start your own community garden. Talk to your child's school or your employer about starting a garden on their property.
6. **Tree-Planting:** Form a tree-planting group with family, friends, neighbors and co-workers. Plan regular gatherings for tree-planting and watering. Be sure to record your contributions with the United Nations Billion Tree Campaign.
7. **Engage Your Employer:** From local businesses to multinational corporations, your employer and coworkers can be a powerful force for sustainability, both environmentally and socially. Learn more about and support or participate in socially and environmentally responsible initiatives and practices at work.
8. **Get Political:** Get involved in local politics and have a say in how your community is run. Whether you're campaigning against poorly planned development, to save a local farm, or seeking to influence local policy in a more positive direction, it is vital that you make your voice heard. A great way to do this is attend city or county meetings. Many are open to the public and residents of that community.
9. **Create a Monthly Swap Get-Together:** Arrange a once-a-month get-together with your friends and neighbors to exchange anything you're ready to part with. A monthly swap event in your home or at a local community center can help to divert countless amounts of unnecessary waste from landfills.
10. **Giving Back, Corporate Philanthropy:** Find out how your employer is engaging in philanthropy and encourage investment in environmentally and socially sustainable development both at home and abroad. Support ways for your business or employer to reach out and give something back to the local or world community and environment.

CONSERVATION AND COMMUNITY

Learn More

1. Get Involved with Conservation International.
2. Check out EPA's resources for concerned citizens.
3. See if there is a conservation project near you at Nature Serve's website.
4. Find o volunteer opportunities at Volunteer America.
5. If you are a home owner, join Community Green to get tips on environmental leadership through home owner's associations.

Quick Tip!

Getting involved in your community is a great way step into the role of active local citizen. And if an opportunity arises with a chance to give locally, perhaps the employees in your company will be moved to volunteer alongside you. Working together with your friends, family and coworkers, you can reap the benefits of strong community relations to your own life and natural environment.

GREEN AT WORK

Q: **Can I have an impact in my workplace?**

A: YES. In fact, it takes more than one person to make a difference! So the best way to make a positive green impact in your workplace is by forming a team. Green teams are a great way to be seen as a leader and make a difference by collectively increasing energy efficiency and reducing office waste. Here are a few ideas that you can use to launch a green team at your company and easy tips you can take to make a difference in the workplace.

How to Start a Green Team

Get the Go Ahead! Let management know about the new initiative in order to get approval and support. This is not only important for validity but also because certain courses of action may require an investment of time and money by your organization.

Recruit! Spread the word to fellow coworkers around your organization – ranging from executives to managers to interns – to get involved! This will ensure greater support and success and ultimately lead to greater results.

Launch! Once you've developed a strategy, organize a meeting with the "green team". Encourage participation by accepting suggestions from any employee, as each department may have different ideas or ways they could make a difference.

Quick Tip!

When negotiating your benefits package, ask about opportunities to telework from home and save on fuel and time commuting.

9 Easy Ways to Be Green at Work

1. **Energy Conservation:** Fully utilize power save settings on computers, monitors, and copy or fax machines. Using power strips with a central "turn off" on power hungry machines and switching it off when not in use can save on energy use.
2. **Printing:** Be sure to set printers and copiers to double-sided printing, and check with procurement or operations to see if printer or copy paper has post-consumer content. Strive to make sure office publications, forms and surveys are distributed electronically to save on paper and ink.
3. **Green Purchasing:** Switch out old and inefficient incandescent light bulbs with new and energy efficient fluorescent light bulbs. Meet with janitorial staff, office management and procurement to make sure they are adopting the use of environmentally friendly cleaning supplies.
4. **Recycling/Waste Reduction:** Encourage recycling by making sure every room in your facility has the appropriate recycling containers. Raise money for company sponsored re-usable water bottles to reduce on plastic bottles and cups.

GREEN AT WORK

Quick Tip!

Celebrate Earth Day at work and other various green holidays in order continue to stress the importance of involvement.

1. **Cafeteria:** Meet with your organization's cafeteria staff to discuss ways to increase sustainability by setting up a compost bin and purchasing biodegradable utensils, plates and cups and avoid the use of Styrofoam.
2. **Transportation:** Telecommute, ride a bike or take public transportation to work. If this is not possible, consider a carpool system with fellow coworkers. Convince management to install bike stands. Start an annual or monthly alternative transportation day (e.g. ride your bike to work day.)
3. **Green Competitions:** Encourage participation by promoting in-house competitions that reward the department that has made the most progress in energy efficiency. Put up a poster board to track progress and update it weekly.
4. **Spread the Knowledge:** Set-up training sessions for all employees not in the Green Team by working with the EHS or Sustainability department in order to further engage employees in greening your workplace.
5. **Distribute Material:** Make sure everyone has a copy of this TIPS guide so that they can truly understand the relevance of these little steps to a big solution. NAEM is also a valuable resource as our members have a wealth of information on "Green at Work" initiatives and successful "Green Teams."

Learn More

1. Read the Business case for employee engagement and training at www.neefusa.org
2. Conduct an Environmental Audit of Your Office at sustainability.duke.edu
3. Print tip cards or awareness posters for your office at www.energystar.gov
4. Check out a Green Team tool kit at www.fs.fed.us/sustainableoperations
5. Suggest your procurement staff to purchase green office supplies: www.thegreenoffice.com

GREEN GLOSSARY

Aerodynamics — the study of how air and other gases flow, including the forces that act on an object as it moves in air. The more **aerodynamic,** or streamlined, a moving object is, the weaker the air resistance that slows it down, thereby increasing fuel efficiency in vehicles.

Backyard Wildlife Habitat — the use of plants, water and shelter that makes it possible for wildlife to live, play and utilize your yard as a habitat.

Biodegradable — The ability of a material to decompose through natural processes and eventually be reabsorbed by the natural environment. Biodegradable products include all plant and animal material, paper, food waste and fibers. Plastic, glass and metals are not biodegradable. Composting provides optimal conditions for biodegradation, while landfill conditions slow or prevent it.

Biomass — The total quantity or mass of organic material derived from living organisms in a particular area, at a given time. In terms of energy production, wood or other plant materials that may be burned to produce energy.

Carbon Dioxide — a colorless, odorless gas that naturally exists in the earth's atmosphere. The major source of man-made CO2 emissions is from the combustion of fossil fuels. Carbon dioxide is the primary greenhouse gas and is known to contribute to global warming and climate change.

Carbon Footprint — The calculation of an individual's, factory's, or other entity's impact on the environment (climate change), often expressed as tons of carbon dioxide or tons of carbon emitted, usually on an annual basis.

Carbon Offset – The payment of a fee to fund projects that reduce overall greenhouse gas emissions, thereby "offsetting" the greenhouse gas emissions you produce from your activities including transportation and energy use.

Carpool — An arrangement in which two or more people share a vehicle for transportation.

Climate Change — Defined by the United Nations Convention on Climate Change as "change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods" and includes The long-term fluctuations in temperature, precipitation, wind, and all other aspects of the Earth's climate.

Community — An interacting population of individuals living in a specific area. Design and building practices enhancing and supporting community ideals and functions are considered as factors influencing sustainable building and development.

Compact Fluorescent Light (CFL) — Energy-saving light bulbs designed to last longer and use far less energy (up to 70%) than traditional (or incandescent) light bulbs for the same level of light intensity.

Compost — The relatively stable humus material that is produced from a composting process in which bacteria in soil mixed with degradable materials break down the mixture into organic fertilizer.

Contaminant — A substance that is either present in an environment where it does not belong or is present at levels that might cause harmful effects to humans or the environment.

Deforestation — The conversion of forested land to non-forested land as a direct result of human activities.

Ecosystem — A basic unit of nature that includes a community of organisms and their non-living environment linked by biological, chemical and physical processes.

Energy Efficiency — Energy Efficiency occurs when you use less energy to accomplish the same task, for example heating your home or washing clothes, resulting in less pollution and lower costs.

EPA Energy Star — A joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy designed to save money and protect the environment through energy efficient products and practices. Introduced in 1992, the labeling program is designed to identify and promote energy-efficient products, and ultimately reduce greenhouse gas emissions.

Fair Trade — Crops produced according to principles in which poor farmers in developing countries receive fair prices for their products, workers enjoy safe working conditions and fair wages, communities receive development assistance and investment in social programs and crops are grown with sustainable farming methods and without the use of pesticides or genetically modified organisms.

Fair Trade Certified — Products labeled as "Fair Trade Certified" are verified and audited by an independent certifier. Fair Trade Certification is currently available in the United States for coffee, tea and herbs, cocoa and chocolate, fresh fruit, sugar, rice and vanilla.

Food Mileage — the distance that a food travels from its point of production to its point of consumption. The greater the distance travelled, the more fuel consumed and pollution generated, the less environmentally friendly.

Fossil Fuels — Fuels found in the earth's crust that are derived from the fossilized remains of animal and plant matter over millions of years. Fossil fuels include oil, natural gas, and coal. They are burned to generate power for many different applications, from electrical power plants to home furnaces to automobiles. When fossil fuels burn, they give off carbon dioxide, the primary greenhouse gas contributing to global warming. Fossil fuels are considered to be non-renewable since they are consumed faster than their natural production.

Genetically Modifies Organisms (GMO) — Are created by inserting a gene from one organism into another organism. This alters the recipient's genetic makeup to produce new and different traits, such as pest resistance or faster growth.

Geothermal Energy — A geothermal heat pump uses water and antifreeze in pipes to move heat from the stable warmth of the earth underground to heat your home in the winter; in summer, it can remove heat from your house and store it underground. The process is extremely energy efficient, allowing geothermal systems to run on 25 to 50% less electricity than other heating systems.

Green Landscaping — Landscaping strategy that uses native plants. Provided the natives are placed in the proper growing conditions; such plantings can have low, or zero supplemental water needs.

Greenhouse Effect — Greenhouse gases in the earth's atmosphere permit solar radiation to pass through but prevent most of the reflected infrared radiation from the earth's surface and lower atmosphere from escaping into outer space. This process occurs naturally and has kept the earth's average surface temperature at approximately 60°F. Life on earth would not be possible without the natural greenhouse effect, but environmental scientists are concerned about the increased emissions of greenhouse gases from human activities, leading to climate change and its consequential adverse effects.

Greenhouse Gasses — Gasses in the atmosphere which reduce the loss of heat into space. Greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, halogenated fluorocarbons, ozone, perfluorinated carbons, and

GREEN GLOSSARY

hydrofluorocarbons. Changes in the concentration of certain greenhouse gases, due to human activity such as fossil fuel burning, increase the risk of global climate change.

Groundwater — Water beneath the Earth's surface in the spaces between soil particles and rock surfaces.

Habitat — The location and environmental conditions in which a particular organism normally lives.

Hazardous Waste — Harmful substances that have been released or discarded into the environment.

Hybrid Vehicle — A vehicle that utilizes both an electrical motor and a gas powered engine which work in tandem to decrease fuel consumption, resulting in higher gas mileage and lower air emissions.

Hydroelectric Power — Electricity that is produced when falling water turns generators. It is a renewable energy source derived from gravity and rain and is most often employed in dams.

Landfill — Engineered facilities where household and industrial waste can be buried and disposed of.

Leadership in Energy and Environmental Design (LEED) — A rating system for commercial buildings, residences and neighborhood developments, and the nationally accepted benchmark for high-performance green buildings. Ratings reflect sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

Life-Cycle Cost (LCC) — The total cost of acquiring, owning, operating and disposing of a building or building system over its entire useful life. LCC includes the cost of land acquisition, construction costs, energy costs, the cost to maintain, service and repair the building and its systems, costs of system replacement, financing costs, and residual or salvage value at the end of the building's useful life.

Light Emitting Diodes (LEDs) — Energy-efficient lights that consume 80 percent less energy than conventional, incandescent bulbs. Common in digital clocks, remote controls, watches and appliances, they are now being produced in bulb form as a home lighting alternative.

Organic — Refers to agricultural methods designed to sustain soil life and biodiversity. Organic regulations forbid the use of pesticides and fertilizers, genetically modified organisms, irradiation, sewage sludge, antibiotics and hormones (in livestock) and other practices. Organic foods and personal care products are labeled "100% organic," "USDA Organic" for items containing 95% or more organic ingredients, and "Made with Organic Ingredients" for items that contain 70% or more organic ingredients.

Organic Waste — waste originating from plant or animal sources, which may be broken down by other living organisms. Examples include fruit/vegetable peels, skins and husks.

Photosynthesis — The process by which plants use solar energy to convert water and carbon dioxide into carbohydrates and oxygen.

Pollution — Generally, the presence of a substance in the environment that, because of its chemical composition or quantity, prevents the functioning of natural processes and produces undesirable environmental and health effects.

Post Consumer Recycled Content — A product composition that contains some percentage of material that has been reclaimed from the same or another end use at the end of its former, useful life.

Recycling — Process by which materials that would otherwise become solid /liquid wastes are collected, separated/ processed and returned to the economic mainstream to be reused as raw materials or finished goods. Commonly recycled items include cans and bottles, paper and industrial solvents.

Renewable Energy Sources — Energy sources that replenish themselves naturally within a short period of time. Sources of renewable energy include solar energy, hydroelectric power, geothermal energy, wind power, ocean thermal energy, wave power, wind power and fuel wood.

Sustainability — Meeting the needs of the present without compromising the ability of future generations to meet their own needs. Practices that would ensure the continued viability of a product or practice well into the future. A state in which society does not systematically undermine natural or social systems within the biosphere.

Sustainable — Adhering to practices that would ensure the continued viability of a product or practice well into the future.

Water shed — the entire geographical area drained by a river and its tributaries; an area characterized by all runoff being conveyed to the same outlet.

Xeriscaping — Landscaping design for conserving water that uses drought-resistant or drought-tolerant plants.

Acknowledgements

We would like to acknowledge and thank the following members for assisting in the content development, review & editing of this guide:

Maribel Crespin
Jill Davidson
Mike Morgan
Anita Dawson
David Newman
Larry Deeney
Don Offinger
Melinda Edwards
Mike Pisarcik
Bruce Karas
Celia Spence
Barbara Lemos
Paul Vitello

Additional acknowledgements:

Dan Banks & Amy Cesal, Project DC – Design
Mike Aloi, Tara Millington & Dan Preiss – Research