

TWELVE GREEN THINGS

Sustainability Tips for a Year

January

"Share Information on Sustainability" - AND Introduce Yourself!! -- DIY!

Share your information about helping the environment with others! --

By talking with co-workers, friends and family about how we can help the environment, we are doing one of the most important jobs of all. Teaching others and sharing about your joy in wildlife, habitats, ecosystems, weather and other natural phenomena is a great way to inspire caring about and understanding of the natural world.

February

"Up One, Down Two" Program AND "Trip Planning" – JOHN SEYMOUR & SHERI CLARK

The sustainability tip for February has two components

Coming just after the holidays, and combined with the fact that most of us don't get enough exercise in the winter, this month's tip, "Up one, down two" is just in time.

The Sustainability Team wants employees to start practicing this behavior during the month so that it becomes habit - we can get exercise while saving energy! Once you get the hang of it you'll be able to walk up two - or down four or five. It's an easy thing to do - changing the old, ingrained behavior is the hard part. But, like Nike says - Just do it!

For those of you whose offices are not in buildings with elevators and stairs, make an effort to save energy in other ways. Get out and walk those short trips - don't take the car.

Be an example wherever you go - take those stairs!

Calories burned by taking the stairs

in one minute, a 150-pound person burns approximately 8 calories walking up or down stairs.

If this person took the stairs 3x per day and it takes them 2 minutes each time, they would burn:

- in one day: 48 calories
- in one week, 336 calories
- in one month, 1445 calories (~1/2 pound weight loss) 3500 calories = 1 lb. weight
- in one year, 17,340 calories (~5 pounds weight loss)

The more or less someone weighs will increase/decrease the number of calories burned, respectively.

The second component of this month's tip is "**Trip Planning**".

Trip planning is a concerted effort to make the travel required for you job duties efficient. Trip planning should not stop at conferences and meetings. State employees should continually make efforts to travel efficiently during site visits, inspections, meetings, and other events. This might mean budding with others (even from other divisions and agencies) in a state car instead of everyone taking separate vehicles. It might mean that you plan site visits more efficiently to include several sites in the same location on the same day. There are many ways to accomplish this goal.

And remember January's tip - Share information on sustainability! Let others know how you work these efficiencies into your daily routine. The whole idea behind the efforts in DENR toward becoming more sustainable is so we can practice what we preach - preserving, protecting and enhancing our environment!

March

"Green Landscaping at State Facilities" (cord. w/ spring garden planning?) – JAN WEEMS

It is Spring Planting Time so GO NATIVE!

Why? What is the value of native plants for landscaping? As Mark Johns of the NC Wildlife Resource Commission succinctly states in his publication, Native Woody Plants for Backyard Wildlife in North Carolina and adjacent States of the Southeast, native plants:

1. Meet the food and cover needs of many species of **wildlife** while promoting **biodiversity**
2. Resistant to natural pests and diseases, which **decreases need** for certain pesticides
3. **Save energy** once established and require less attention from landowners
4. Usually **not invasive** like many exotic plants tend to be if their competition is controlled
5. Improve **water quality** when used as vegetative buffers along streams, ponds and wetlands
6. Provide a variety of colors, heights, shapes and textures in landscapes and backyards

7. Exist as a historical and cultural link to the past and a bridge to the future
8. Value as sources of food and medicine and many other domestic purposes

On the flip side, planting invasive non-native plants creates environmental and economical havoc. One study estimates that the total costs of invasive species in the United States amount to more than \$100 billion each year.

<http://www.invasivespecies.gov/impacts.shtml>

A Few Resources for the North Carolina Native Gardener:

North Carolina Botanical Garden

<http://www.ncbg.unc.edu>

North Carolina Botanical Garden Recommended Sources Native Plants

<http://www.ncbg.unc.edu/sources.htm>

Landscaping with Native Plants in Western North Carolina

<http://www.ncwildflower.org/natives/natives.htm>

Native Plant Vendor List for North Carolina Source in the Mecklenburg Co. area

http://faculty.ncwc.edu/mbrooks/pif/Home%20Page%20Links/native_plant_vendor_list_for_nor.htm

Native Woody Plants for Backyard Wildlife in North Carolina and adjacent States of the Southeast

<http://faculty.ncwc.edu/mbrooks/pif/Native%20Plant/natplant.htm>

Recommended Native Plant Species for Stream Restoration in North Carolina

<http://www.bae.ncsu.edu/programs/extension/wqg/sri/Recommended%20Native%20Plant%20Species.htm>

Native Wetland Plant Vendors in North Carolina

<http://h2o.enr.state.nc.us/ncwetlands/planters.pdf>

April

“Sustainable Purchasing” – THERESA WATKINS

Sustainable Purchasing

OBJECTIVE:

DENR will continue in the effort to empower other DENR divisions in the campaign to promote Environmental Sustainability as mandated by Executive Order 156 by:

- Assisting other divisions with waste assessments
 - Locating recycled commodities on State Term Contracts
 - Developing specifications for environmentally friendly products
 - Support the purchase of Alternative Fuel Vehicles
 - Assisting with leases, repairs/renovations and surplus in keeping with environmental sustainability.
1. Promoting among all end-users the recommendations of purchasing recycled construction surplus and other commodities for cost savings.
 2. Conduct Waste-Recycling Program Assessment by establishing a baseline of the quantities of waste generated associated management costs and purchasing practices of recycle commodities.
 3. Paper reduction verse electronic copy (this reduces copy time, paper use and distribution expenses.
 4. Promote cross-departmental collaboration in recycling commodities.
 5. Promote use of electronics forms and paperwork to reduce paper consumption and waste, cost savings in decreased paper purchase.
 6. Support the usage of telephone books on electronic websites. This reduces paper consumption through phone books that are not recycled.
 7. Continue to promote the reuse of office materials, which reduces waste and expenses for purchasing new materials.
 8. Continue to promote and support the State Surplus System within DENR agencies prior to placing on State Surplus. This increases usability of materials and reduces waste.
 9. Promote the purchase of office equipment (computers, copiers, scanners, fax machines are EPA Energy Star certified.
 10. Continue to promote the purchase of all new printers to print double sided.
 11. Continue to support Executive Order 156 in purchasing and using environmentally preferable products goods and services wherever feasible and practicable.
 12. Encourage faxing quote request instead of mailing wherever feasible.

13. Post bids on the IPS (Interactive Purchasing System) wherever possible instead of mailing RFP's.
14. Encourage DOA (Department of Administration Purchase and Contract Division) to post a list on State Term Contract website of products that are made of recycled materials.
15. Notify end-users of all products that are made of recycled materials on State Contract.
16. Identify equipment that can be remanufactured or refurbished instead of buying new.

May

“Ozone/Air Awareness” – MARK SMITH

Highway vehicle emissions account for 1/3 of ozone-forming emissions statewide and up to 70% in some NC cities. Do we can all do our share to clear the air!

- Drive less, especially on Air Quality Action Days. Carpool, vanpool, take the bus, walk or ride bikes.
- Combine errands into one trip. Cold starts are the most polluting.
- Don't idle. Walk into banks and restaurants. Idling more than a minute wastes gas and contributes to pollution.
- Keep cars tuned and tire properly inflated. Under-inflated tires cause more friction, making the engine work harder And wasting gas.
- Buying a new or used vehicle? Compare emissions at www.epa.gov/greenvehicles or www.edf.org/tailpipetally.

No matter what size vehicle you need, you may have greener options. Your choice of vehicle is probably your single biggest impact on air quality.

June

“Thermostat and Window Control” -- JOHN SEYMOUR

Thermostats

Slogan- “Do you know what a Thermostat can do to you?”

- Is the thermostat located in a good location? A coffee maker or a machine located too close can cause people in nearby rooms to freeze in summer and winter. A thermostat in the bright sun or in front of a much-used outside door can cause unnecessary costs and discomfort in all work areas. Space heaters in winter can confuse a thermostat and freeze out everyone in the other rooms.
- Is there zone control? – Buildings are often divided up into heating and cooling zones to compensate as the sun passes over, warming different parts of the building during different times of the day. If you have heating or cooling problems find out who operates and maintains the zone controls.
- Are controls automated or manually set? Many thermostats are part of a building wide computer controlled, automatic system. If you have heating or cooling problems find out who manages the automatic system. Manually set thermostats can sometimes be set so wrong that different thermostats end up fighting each other.
- Is window heat gain for time of day taken into account for thermostat controls? (Curtains left open in bright sun, etc.)
- Are controls calibrated every few years? Thermostats are mechanical and need to be calibrated every few years to save heating and cooling costs. The cost of calibration very quickly pays for itself.
- Are systems serviced or cleaned regularly? Thermostats need cleaning for their sensors to work accurately.

In any DENR building improperly used or broken thermostats not only can waste electricity or fuel, but also, create tons of unnecessary air pollution from burning fuel in a boiler or at the power plant.

Window Controls

Slogan – “Save the view use your window blinds.”

- Is there a window policy? Closing the curtains or blinds keeps summer heat out and winter building heat in, especially at night and on weekends.

- Can windows be opened? Windows left open in rooms with thermostats can cause problems for people in other rooms. Windows left open overnight and on weekends can cost electricity or fuel and create unnecessary air pollution from burning fuel in a boiler or at the power plant.
- Who is charged with ensuring correct window status? Windows can be used to save lighting. Windows can be used to save heating on sunny days. Window curtains and blinds need to be closed to keep at the right times to keep summer heat out and winter heat in.
- Who looks after window to ensure curtains are open or closed at proper times? Those who work in the room with a window have the best opportunity to make the difference in electricity or fuel costs and stop extra air pollution.

July

“Water Use/Conservation/Recycle” – JOANNE HARKE

Don't Be a Drip! Save water.

We use a lot of water every day. As a matter of fact, the average individual uses 50 gallons of water per day! You can conserve water by fixing leaky faucets. Did you know that a dripping faucet could waste 2,000-3,600 gallons of water a year?

Water is not a renewable resource -- the same water the dinosaurs used is around today in some form.

August

"Turn Them OFF!" - TAD BOGGS

Energy is central to virtually every aspect of modern life, so much so that we're prone to take it for granted. Yet many of the most serious challenges to air and water quality and healthy ecosystems stem from energy use -- and misuse. Air quality across North Carolina suffers during late summer from a combination of factors, but we all can help in our offices and homes.

Most of us wouldn't think of leaving our homes without turning off all optional electrical devices. After all, energy isn't free, but neither is the effect of energy consumption on the health and well being of our families, our communities and ourselves.

Lights, computers and other implements of the workplace consume a significant amount of electricity. Especially at night and on weekends, **WHEN YOU'RE NOT USING THEM, TURN THEM OFF!** And even if you're only going to be away from your desk for a part of the day, your office and its equipment aren't afraid of the dark.

September

“E-mail and Paper Recycling” – MARTY WIGGINS - Save Money-Save Resources-Reduce Waste

Use email for memos in place of written correspondence when possible, especially with interoffice business and messages.

Consider how much you will be saving: A ream of paper (one packet) costs about \$2.50 or more. A standard letter through Mail Service Center is about 27¢. It adds up! Plus, you'll be saving natural resources and reducing the waste stream.

Reuse Your Backsides!

Another tip to save on paper is to print drafts of letters, reports, or documents on the clean side of used paper. This system has worked well in the Office of Environmental Education:

1- Get a small letter box and mark it "Clean One-Side Reusable." A small box helps to keep the paper straight. Educate the office workers about saving clean backsides and putting them in the box. Make sure the paper is clean, not wrinkled, and does not staples or labels. It only takes a couple of days to get in the habit.

2- If you have a two-tray printer, load the reused paper in the top tray-this is usually everyone's default, so drafts, etc. will automatically print on the backs.

3- Load the bottom tray with clean paper to use for final copies. We manual feed letterhead and labels.

If you have questions about how this works, call or email Marty.Wiggins@ncmail.net 733-0711

we have been doing this for three years. It works great for us and has saved a lot of money and resources!

When you do recycle paper and have questions, please feel free to call or email the Facility Management Division (919-733-3855)

<http://www.doa.state.nc.us/doa/facility/recycling.htm> they are very helpful and can answer your questions. There are more tips on office and work place sustainability at the **Sustainability Team Web** site:

Office Sustainability Checklist

<http://www.sustainablenc.org/DENR/SustainabilityTips/OfficeSustainabilityChecklist/OfficeSustainabilityChecklist.htm>

Office Sustainability Practices

<http://www.sustainablenc.org/DENR/SustainabilityTips/OfficeSustainabilityPractices.htm>

Workplace Tips

<http://www.sustainablenc.org/DENR/SustainabilityTips/WorkplaceTips.htm>

October

“VOTE!” – BETHANY GOODWIN

What can you do to ensure that our natural resources will be viable for generation to come? **DO YOUR ENVIRONMENTAL HOMEWORK** then **VOTE!!!** November 2, 2004 Your Vote Counts! - DENR Sustainability Team 2004

November

“Sustainable Food/Party Tips” – HOLLY DENHAM

All the Taste With Zero Waste

(Reducing Waste at Lunch and Office Gatherings)

- Use a reusable lunch box/bag, plastic containers, and utensils when you bring your lunch. Avoid single-serving, prepackaged foods.
- When eating out, choose a restaurant that uses dishes and glasses rather than throwaway packaging.
- For office get-togethers, make zero waste a priority. Ask Co-workers to bring their own reusable plate, cup, and utensils. Make your own party platters of fresh veggies and cheese and serve them on a reusable tray. Lastly, avoid individually wrapped refreshments altogether.

December

“Holiday Sustainability” -- JOHN SEYMOUR & SUSAN TILLOTSON

Slogan = “Holidays feel better with Sustainability.”

ENJOY YOUR GIFTS; RECYCLE THE WRAP

After opening holiday gifts (or gifts at any time of the year!), remember to recycle any boxes and paper gift wrap.

COOKIE, CAKE, AND POPCORN TINS

What to do with all those cookie, cake, and popcorn tins left over after holiday parties or receiving gifts? Recycle them!

CHRISTMAS TREE RECYCLING

Christmas trees are given a new life after being composted or chipped for mulch, so keep the tree in a natural state. Please remove the stand and all decorations, including lights, ornaments, tinsel and garland. Be sure there is no metal attached to the tree. You can also recycle branches and needles at home by placing them under trees and shrubs as a temporary winter mulch--or chop them up and add them to your compost pile! Recycled Christmas trees can also provide protective structures for fish. Strategically placed at public fishing piers, these submerged trees provide cover for many fish species. Check with your local city, county, and state parks to see if Christmas trees are being recycled for this purpose.