



eco voice

Environmental and Conservation Organization ♦ www.eco-wnc.org ♦ 828-692-0385 ♦ January-March 2010
“Working to protect WNC’s natural heritage since 1987.”

Antique Apple Trees Reclaim WNC’s Apple Legacy



According to Tom Brown, a leading North Carolina “apple archaeologist” who has personally uncovered more than 900 varieties of apple trees throughout our

state’s wilderness, old-timey apples are part of our agricultural heritage, but they are rapidly being lost forever.

Antique Apple Tree Sale
Sat, Feb. 6th, 9 am - 12 pm
Hendersonville Visitor’s Center

ECO’s apple tree sale is a fundraiser, but it’s also a way of working to maintain our natural and cultural connection to the apple trees of yesteryear.

Our supplier of heritage apples had an agricultural disaster to his smaller trees, so this year ECO will be offering larger, older trees than usual. At the February sale, buyers will have access to two-year-old grafts, five-to-six feet tall, in five-gallon containers. Apple tree lovers may choose from more than 20 varieties of apple trees, few of which can be found anywhere else.

For the full list, go online to www.ECO-WNC.org. ■

ENVIRONMENTAL HEALTH BEGINS WITH WATER QUALITY

By Kara Raymond

The wise use of water will ultimately define our species more than anything else. Crises of water quality and quantity are global problems that must begin with local stewardship efforts. For 18 years, ECO has monitored the streams that define Henderson County to assess the impacts of development on water quality and guide future management decisions. How are we doing?

VWIN
Chemical Monitoring. ECO volunteers collect water samples every month

for chemical analysis. An analysis of our 2009 chemical data through October found four sites that did not meet the water quality standards for several chemical parameters. Mill Pond Creek had high levels of heavy metals, sediment, conductivity and ortho-phosphate. Boylston Creek had high levels of heavy metals and sediment. Mud Creek at North Rugby Road, and 7th Avenue demonstrated high levels of sediment, conductivity and ortho-phosphate. These results represent a trend of increasing degradation of

Mill Pond, Boylston and Mud Creek at 7th Avenue. ECO plans to continue monitoring these sites and investigate pollution sources.

Biological Monitoring. ECO volunteers systematically collect aquatic macroinvertebrates and assign water quality ratings to 26 sites twice a year. In 2009, ECO adopted a new protocol, developed by Clean Water for North Carolina in conjunction with ECO, which will lead to a greater correlation between ECO’s and Division of Water Quality’s biomonitoring results. Analysis of our 2009 biological data found water quality in Rock Creek and the



Clear Creek watershed has increased from Fair to Good/Excellent over the past five years. The North and South Branch of the Mills River have a consistent rating of Good. However, the two downstream sites on the Mills River show a trend of decreasing water quality with Fair/Poor ratings over the past two years.

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February Forum to Focus on Recycling

Since the public is hungry for information, and a bit confused by the local media's coverage of recycling, ECO will again partner with the League of Women Voters to present a public forum in February. The format will be similar to last year's successful event.

The new forum, Recycling: A Year of Progress – City & County, will be held on Monday, February 22nd, featuring a panel of experts to update the community on progress since last year. Representatives from the city, county and state will present and answer questions from the audience. See

the ECO calendar on page 6 for details.

Recently, County Commissioners voted to give the local waste haulers three years to comply

with the "adequate equipment" regulations that are now being enforced by the state. Also, the haulers were given one year to add recycling services to their garbage collection.

Phase one of the new transfer station upgrade will begin with the recycling center. Ground breaking is due to start early in 2010. The new center will accept household hazardous waste and electronic waste on a regular basis. Until then, e-waste is accepted every Wednesday from 9 am - 12 noon at the transfer station. Visit their website for a list of accepted materials. http://www.hendersoncountync.org/solid_waste/solidwastehhw-electronics.html.

Included in phase one is a material recovery facility (MRF) to be built and operated by the county, which will increase the value and marketability of our collected recyclables. ■

DIRECTOR'S CORNER

Taking the Road Less Traveled

By David Weintraub



As I write this column, the sky has let loose once again with another rainstorm, and warnings have been issued

for floodways near Mud Creek that historically beckon for Noah's Ark. What a difference a year makes! As Mark Twain was fond of saying, "If you don't like the weather, wait a few minutes."

Our weather is certainly pretty changeable in the mountains and with climate change added into the mix, we can expect our weather to become increasingly volatile. NC State Climatologist Ryan Boyles suggests that 2010 could very well be another year of drought. How prepared are we since last year at this time, when our grass was brown and our trees wilting?

Thankfully, Henderson County now has an ordinance in place that ties development in rural areas to available water. No longer can a developer plead ignorance and begin construction before adequate due diligence has occurred to assess water availability.

Additionally, one of the results of the Etowah-Horseshoe small area planning work is the establishment of new restrictions against bringing public water to rural areas there.

But there's much work ahead of us. Henderson County is making a big leap in 2010 by drafting a storm water ordinance that would begin to regulate a major cause of watershed pollution. We need this ordinance to be as strong as possible, including standards for impervious surfaces in our rural areas. In the wake of the Carriage Park debacle, the need for steep slope protections was never clearer (for more on that story, see Regional News on page 4).

On February 2nd, ECO will be holding a forum on mudslides and landslides and our mountains (see calendar on page 6), which should help shed light on why steep slope protections are needed. With assistance from Land of Sky Regional Council, we hope to complete our "Green Map" to help guide increased protection of open space, including natural heritage areas, floodplains and farmland throughout the county and the region. Please join an ECO committee to help us move forward! ■

WELCOME OUR NEW WATER QUALITY ADMINISTRATOR!

Kara Raymond has joined ECO as our new Water Quality Administrator through AmeriCorp.

Kara comes with substantial experience researching the effect of land use management on stream channels and biotic communities while working toward her master's degree in Water Resources Science at the University of Minnesota. She also conducted research on water quality in streams adjacent to grazed pastures, which should greatly



assist ECO as we identify how agricultural interests can institute best management practices to protect our waterways.

Kara will focus on expanding ECO's water quality work to include bacterial testing on the French Broad River and to establish SWAT (stream watch action teams) to pursue problem areas in our rivers and streams. She also helps strengthen ECO's ability to advocate for policies to better protect our most precious resource. ■

EARTH DAY REACHES 40! COME CELEBRATE!

By David Weintraub

April 22, 1970 seems a lifetime ago. Political unrest rocked the nation. Smog and acid rain blanketed the country from coast to coast. The original organizers of Earth Day sought to tap into this rising tide of discontent by organizing a day of activism and celebration of the environment. A few months before the first Earth Day, The New York Times reported:



“Rising concern about the environmental crisis is sweeping the nation’s campuses with an intensity that may be on its way to eclipsing student discontent over the war in Vietnam.” ... “A national day of observance of environmental problems...”

is being planned for next spring...when a nationwide environmental ‘teach-in’... coordinated from the office of Senator Gaylord Nelson is planned...”

The result: 20 million people mobilized across the nation to show their support for environmental action. Eight years before, Rachel Carson’s *Silent*

Spring woke the nation to the fact that the environment had no watchdog, no paid lobbyist, and no governmental unit overseeing technology’s effect on our nation’s natural resources. In 1970, the EPA was born, followed shortly thereafter by passage of the Clean Air Act and the Clean Water Act.

ECO’s annual Earth Day celebration this year will celebrate the successes of Earth Days of yesterday through music, performance art, a Green Olympics, possibly a clean car race, displays of student projects, green vendors from across the region and a special benefit concert in the evening—all at Blue Ridge Community College. Given the size and scope of the event, volunteers are urgently needed to help organize, prepare and participate. Call us today: 692-0385. ■

WANTED!! Office Volunteers

We need volunteers to assist with data entry and other office tasks. No need to be fast, just accurate! Become a volunteer for the leading force for conservation and preservation in the mountain region! ECO’s efforts are long-term and ongoing and we need your help! Call today: 692-0385.

ENVIRONMENTAL HEALTH, *continued from page 1*

Bacterial Monitoring. ECO began a bacterial monitoring program in July of 2009 in response to plans by the Hendersonville drinking water facility to start obtaining water from the French Broad in addition to its current intake at the Mills River. The plan is driven by the necessity to have a reliable drinking water source, especially during times of drought. This has shed light on concerns about the quality of the water in the French Broad. Every month, ECO monitors *Escherichia coli*, an indicator of fecal contamination, at five locations on the French Broad River. Samples taken during the summer showed high *E. coli* levels, nearly four times the water quality standard. However, recent samples had very low levels of *E. coli*, possibly due to rainfall over the past two months. Continuing bacterial monitoring will allow us to identify trends.

Stream Watch Action Teams. The Stream Watch Actions Team program (SWAT) is the next step in ECO’s water quality monitoring strategy. The more information we have on the causes of the decreasing water quality, the more quickly and efficiently problems can be remediated. When monitoring results indicate low water quality, trained SWAT volunteers will be sent to investigate and determine possible sources of pollution. Their results will lead to proactive work by ECO with willing landowners and regulatory agencies to implement projects that improve water quality.

Water Quality Master Class. Explore your watershed in 2010! ECO is hosting a Water Quality Master Class taught by Diane Silver, the Mud Creek Watershed Coordinator. The class will give you an in-depth understanding of the problems facing

the streams in your backyard, management strategies, and the role that governmental agencies, businesses, nonprofits and citizens play to protect our water resources in Henderson County.

The six-week class will be held on Tuesdays at 6 pm at the ECO office on 4th Avenue, running January 12th through February 16th. A \$20 fee covers all class materials.

Following the master classes, a **SWAT team training session** will be held on **Tuesday, March 2nd at 6 pm.** **Biomonitoring training** for new and veteran biomonitoring volunteers will be held at the biology laboratory at Blue Ridge Community College on **Saturday, March 13th at 10 am.**

To take the plunge and protect our streams, call ECO today at (828) 692-0385. ■

Mudslides, Landslides and the Blue Ridge Mountains

“No matter how sophisticated you may be, a large granite mountain cannot be denied—it speaks in silence to the very core of your being.” Ansel Adams

In Western North Carolina, mountains surround us. They make our hikes challenging and our backyards picturesque, but there is more to them than meets the eye.

Did you know the Blue Ridge Mountains are the world’s oldest mountains? They started forming about 400 million years ago and contain the 6,684 foot Mt. Mitchell, which is the highest peak east of the Mississippi. Millions of years later, we see them in a more subtle and gentle light.

To appreciate the Blue Ridge Mountains as they are today you must first know their past. Luckily, ECO is holding a forum on the mountains: their history and what can be done to preserve their looming spirit and integrity.

Mudslides, Landslides and the History of the Blue Ridge Mountains will be held on February 2nd at 7 pm at the Hendersonville County Public Library. Speakers will include Rick Wooten and Bart Cattnach from the

North Carolina Geological Survey (NCGS).

Topics of discussion will include: Blue Ridge Mountain orogeny (the process of mountain making), Henderson County’s geological history, landslides, the NCGS landslide mapping of Henderson County, steep slopes and their regulation, and conservation practices.

Landslide Hazard Mapping conducted by the NCGS has been completed for Macon, Watauga and Buncombe counties. Mapping for Henderson County is in the first stages of completion.

NCGS research concludes that landslides pose a significant risk in areas of steep slope development and disturbance. There will also be time for a short question-and-answer session following the speakers. For further information, please contact Green Infrastructure Committee member Britney Dunnebacke (828) 692-0385 or at BooneyBakes@gmail.com. ■

Wind Power Update

Should commercial wind power be permitted in Western North Carolina? The NC State Legislature will consider that question in the coming months as it considers whether to permit commercial wind turbines on WNC mountaintops. In a bill that passed the Senate last year, wind turbines were limited to residential use, which is a missed opportunity on several levels. Not only do North Carolinians lose out on generating more of their power from sustainable resources, but state and local governments lose out on tax



revenues they could generate through viable green businesses. In addition, private land owners under pressure to sell to large residential developers have one less option: selling only a small portion of their land for wind use while retaining the majority for farming, recreation and other uses.

Mountaintop wind is a win-win for everyone. ECO urges you to contact your state representatives to encourage their votes for wind power in 2010. They can be reached at: www.ncga.state.nc.us. ■

DEBACLE AT CARRIAGE PARK POINTS TO NEED FOR REGULATIONS

The successful lawsuit against a developer and builder at the Carriage Park subdivision in Henderson County demonstrates in stark terms the value of steep slope regulations.

According to lawsuits filed by six prospective residents, they were never informed about the hazards of building on steep slopes in the subdivision, were not aware of the increased costs required to build retaining walls, and the builder and developer were never required by the county to shore up the slopes before construction.

According to local engineer Bill Lapsley, the homes in question had severe problems, including foundation walls that were built too high and were cracked and in danger of failing, settling of the town homes causing wall cracks, and shifting doorways and windows out of square—all attributable to building on steep slopes.

Geologists with the North Carolina Geologic Survey have mapped more than 2,000 historic slope failures in the region since records have been kept, as well as hazard zones that could result in

catastrophic mudslides should the region face intense storms such as those in 2004. In Buncombe County, landslide mapping suggests that 10 percent of the county—roughly 660 square miles—is high hazard



for soil instability and another 19 percent is a moderate hazard. Henderson County is currently being mapped, which should provide policymakers with enough evidence to move forward with regulations that protect potential buyers and current homeowners from construction in these hazard zones.

Henderson County stands alone as one of the few areas in WNC without adequate regulation. Buncombe County, Asheville, Lake Lure, Polk County, Haywood County and Jackson County have all implemented rules that protect residents and waterways from development in places where nature will ultimately take its course. ■

Spotlight on Local Green Business: Comfort Central

There’s a new energy comfort business in town, although the owners are no strangers to energy efficiency issues.

With 40 years’ combined experience dealing with heating, cooling and indoor environmental issues, Kevin and Laurie Schumann have opened Comfort Central to help homeowners and small businesses become more energy efficient, have greater comfort and protect their indoor air quality.



Although there are many local businesses that offer energy audits and inspections, few take the “house as a system” approach, which deals with increasing the efficiency of the HVAC system as well as resolving indoor-pollutant problems that may effect the health of the residents.

Comfort Central’s typical energy assessment includes a combustion

analysis to check both the carbon monoxide levels in appliances and their efficiency, a blower door test to evaluate air infiltration, duct blasting to determine the level of duct sealing, and a review of energy bills to come up with a savings to investment ratio so that customers can

determine how much an investment in energy efficiency is going to pay back over time. According to Laurie Schumann, Comfort Central’s energy savings preventative maintenance program will typically save homeowners 25 percent on energy bills.

Comfort Central can be reached at (828) 483-4040 or online at www.Comfort-Central.com. ■

Check out our new and improved website!

Visit us today, at www.ECO-WNC.org

Get informed. Give us feedback. Pitch in.



ECO CALENDAR OF EVENTS

January - March 2010

Board meetings are held the fourth Thursday of each month, 12:00 - 1:30 pm. Committee meetings are as follows:
Recycling Committee: 2nd Tuesday, 4:30 pm ♦ **Water Quality Committee:** 2nd Wednesday, 4:30 pm
Energy Committee: 2nd Thursday, 4 pm ♦ **Green Infrastructure Committee:** 3rd Thursday, 4pm
All meetings are held at the ECO office. Visitors and volunteers are welcome. Contact ECO for details.

JANUARY

- Sat. 9 **20th Annual Hendersonville Christmas Tree Recycling Project.** 9 am - 2 pm, Jackson Park. Make this your seasonal gift to the earth.
- Sat. 9 **Guided Bird Walk.** 9 am, Jackson Park. Cosponsored by ECO and Henderson County Bird Club.
- Tuesdays **Water Quality Master Classes.** 6:30 pm - 9:30 pm at ECO Office. Six-week course hosted by ECO and
Jan 12 - led by Diane Silver, Mud Creek Watershed Coordinator. Looks at local streams, management strategies
Feb 9 and the role of government, businesses, nonprofits and citizens in protecting water. \$20 materials fee.
Call to reserve your spot: (828) 692-0385.
- Tues. 26 **North Carolina's Rich History of Heritage Apple Trees,** a lecture by Tom Brown, NC's leading "apple archaeologist," about the 900+ varieties of apple trees he has uncovered through his trailblazing work over several decades. Cooperative Extension Director Marvin Owings will discuss the care and planting of apple trees. Henderson County Public Library at 7 pm.

FEBRUARY

- Tues. 2 **Mudslides, Landslides and the History of the Blue Ridge Mountains,** a forum at Henderson County Library, 7 pm. Topics will include a geological history of Henderson County and the Blue Ridge, landslide mapping and hazards, plus steep slope regulations and education.
- Sat. 6 **Heritage Apple Trees Sale.** 9 am to noon. Hendersonville Visitors Center, 201 S. Main St. Pre-ordered trees must be picked up between 9 am and noon. Those not picked up will be sold at noon. Go online to www.eco-wnc.org for tree list and ordering details.
- Sat. 13 **Guided Bird Walk.** 9 am, Jackson Park. Cosponsored by ECO and Henderson County Bird Club.
- Mon. 22 **Recycling: A Year of Progress — City & County,** 7 pm at the City Operations Center, 305 Williams Street. A public forum on the many recent changes in recycling at the city, county, and state levels. A panel of experts from all areas of government will report on what has happened since the county announced its 20-year Solid Waste vision more than a year ago. Audience questions are encouraged. ECO and League of Women Voters are co-sponsors.

MARCH

- Tues. 2 **Stream Water Action Team Training.** 7 pm - 9:30 pm at ECO Office. The Stream Watch Actions Team (SWAT) program is the next step in ECO's water quality monitoring strategy. Participants will be trained on how to identify possible sources of water pollution in streams that are degrading in quality. Call to reserve your spot: (828) 692-0385.
- Sat. 13 **Biomonitoring Training Session for Volunteer Stream Monitors.** 10 am - 4 pm at Blue Ridge Community College. Designed for new volunteers and as a refresher for current volunteers, covering aquatic insect morphology, identification and sampling protocol. Includes lab and field work. Call to reserve your spot: (828) 692-0385.
- Sat. 13 **Guided Bird Walk.** 9 am, Jackson Park. Cosponsored by ECO and Henderson County Bird Club.



COMING SOON: 40TH Anniversary of Earth Day Celebration April 24 at Blue Ridge Community College!

Check out "Earth Day Reaches 40! Come Celebrate!" in this issue for more info and ways you can pitch in!

Join Us!



**Help make a difference,
join our committees! It's a
great way to get involved!**

- | | |
|----------------|--------------------------|
| ___ Energy | ___ Fundraising |
| ___ Recycling | ___ Water Quality |
| ___ Events | ___ Green Infrastructure |
| ___ Membership | ___ Marketing |

Please check your category of membership:

Corporate \$ _____	Maple _____ \$65
Chestnut _____ \$500 or more	Hemlock _____ \$40
Sycamore _____ \$250	Oak _____ \$25
Dogwood _____ \$100	Redbud(student) _____ \$10

Please contact me about special funding opportunities

Phone number _____ (day) _____ (night)

Name _____ email _____

Address _____

Clip and mail with your check to: **ECO, 121 Third Avenue West, Suite 4, Hendersonville, NC 28792 (828) 692-0385 or join online at www.eco-wnc.org**

Energy Committee Update & Greening of Downtown

Hendersonville businesses are getting a little greener, and it wasn't just the Christmas decorations. ECO's Energy Committee is spearheading an initiative in conjunction with Downtown Hendersonville, Inc. (DHI) to be better environmental stewards. At DHI's quarterly meeting in September, David Weintraub got the message out that:

*** Green sells.** Many recent studies have shown that even in a recession, people will go out of their way to purchase products and services from businesses that follow green practices.

*** Green Saves!** Every dollar saved is equivalent to \$3 in profit. Making your business more energy efficient can create substantial savings to your bottom line while saving energy.

*** Green affects the local economy!** When property owners take steps to tighten up their building envelopes, retailers re-evaluate the products they sell, and we all buy from more local/regional sources, we can help turn around our local economy by driving more dollars back home.

As a follow-up to the September meeting, energy audits were provided at no cost through a joint effort of ECO and Waste Reduction Partners. Seven businesses already have a written report from George Tregay and Larry Schwake of WRP. "Too hot in the front and too cold in the rear" was a common dilemma for these businesses.

Even a new heat pump won't distribute air efficiently if the ducts are not sized properly.

Cash for Energy Clunkers is here! Everyone knows by now that their old car was an energy waster, but did you know that your HOUSE is most likely wasting 15 to 25 percent of the energy that you pump into it? Many homes in our area waste an average of \$500 per year on utility bills. Some waste as much as \$3,000!

ECO held a Project Green Light workshop on November 21st at the Henderson County library to identify all of the financial incentives now available to residents who want to take energy saving measures to reduce those losses. About 30 people received first-hand information from Advanced Thermal Solutions, Endless Supply and ECO's Rick Bayless.

Tax credits at the federal and state levels can be combined to offset more than half the cost of some improvements. More dollars are available from Duke Power, Progress Energy and PSNC, as well as equipment manufacturers.

If you missed this money-saving program, you can get the handout online at www.eco-wnc.org, titled "Learn More about Cash for Energy Tax Credits." ■

The Wizardry of Home Inspections

Dorothy was bewildered by the situation she found herself in. On her way to Emerald City, Dorothy asked, "Where should I start?" At the beginning, of course!

When you decide to reduce the amount of energy you consume, a great place to start is in your own home. A lot of energy is consumed at home with heating, cooling, refrigeration, hot water use, clothes drying, dehumidifying, lighting, fans, pumps, sight and sound devices. Where do you start? A home energy inspection.

But with home energy inspections, as it was in Munchkinland, things are not always as they appear. More accurately stated, a home energy inspection most likely would not be as all-inclusive as it should be.

A home energy inspection might not address issues with the home's central heating/cooling units. An inspection will often not give attention to a safety or air quality and health issues in the home or an annoying comfort issue.

How do you safely find your way to Energy-Savings City? Start with an ECO-sponsored, Project Green Light home energy inspection. A local home energy expert will conduct a broad "House-as-a-System" analysis. You might be surprised at the long list of energy-savings issues that are discovered. Save energy effectively, smartly, neatly, and oh, so sweetly, call ECO today to set an appointment. ■

**THE ENVIRONMENTAL AND
CONSERVATION ORGANIZATION**

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Thank you for your continued support!

ECO Voice cover photo by Rob Travis.com.

Help ECO reach the next mountaintop!

Join our Mountaintop Fund Campaign today!

ECO has launched major initiatives to make sure our land-use regulations protect sensitive habits, our waterways remain pristine and recycling becomes a county-wide practice. (Isn't it about time?) Pledge your support today so ECO can reach new heights!

Total Pledge Amount

Mount Mitchell \$30,000
Mount Pisgah \$10,000
Pinnacle Mountain \$ 5,000
Bearwallow Mountain \$ 1,000
Sugarloaf Mountain \$ 500
Stone Mountain \$ 100
Name Your Mountain \$

Pledge Frequency

Lump sum Annually Quarterly

Enclosed is a first gift of \$ _____ Begin installments on: _____

Enclosed is a single gift of \$ _____

Yes! I want to protect WNC's natural heritage!

Name: _____ Company: _____

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In Honor/Memory of: _____

Mail to: ECO, 121 Third Avenue West, Hendersonville, NC 28792 • Or donate online: www.eco-wnc.org