



The Freshet

News from the Duck River Watershed Association

Vol. III No. 1

Spring 2009

It's Annual Meeting Time

The Annual Meeting of the Duck River Watershed Association will be held on Saturday, April 25, 2009 at the Henry Horton State Park Inn. The meeting will begin at 10:00 am. The primary action will be the election of the board of directors as proposed by the Nominating Committee.

We are pleased to announce that Doug Markham, TWRA Information and Education Coordinator for Region II, has been invited to be our guest speaker. Mr. Markham is the host of the popular radio program, "Outdoors with Doug Markham." He is author of *Boxes, Rockets, and Pens: A History of Wildlife Restoration in Tennessee* and co-author of *The Complete Tennessee Angler*. Mr. Markham is a 2004 inductee into MTSU's Journalism Wall of Fame. He is also the past president of both the Southeastern and the Tennessee outdoor writers associations. He was the Tennessee Wildlife Federation's Conservation Communicator of the Year in 2002. Recently, he has been producing a short film on the Duck River.

The Nominating Committee has selected a stellar slate of new Board members to present to the membership for election. The committee, which is comprised of Board members Doug Jones, Marshall Spencer, and Sherry Beard, has diligently sought new board members who have the knowledge, experience, wisdom, and love of the Duck River to help guide the organization through the next two years.

DRWA volunteers will also give updates on other activities, including the new Adopt-A-River program, the 2009 Tennessee

Watershed Summit to be held in the Duck River Watershed, and watershed restoration work.

Following the meeting, members are invited to join current and new Board members at a dutch-treat lunch at the Henry Horton restaurant.

Please plan to attend this meeting to meet your folks from all over the watershed who share your concerns about the Duck River and her tributaries. We look forward to seeing you there!



Freshet: Old-time folk name for spring rises on the Duck River.

No Stream is Too Small

The future of the Duck River watershed - along with every other watershed in Tennessee – is in the hands of legislators in the current session on Capitol Hill. Two sister bills, known in the House as HB1617 and in the Senate SB 633, seek to define a basic element of a watershed: the wet-weather conveyance (from here on I will refer to them as WWCs). Before going further into the pros and cons of this legislation, let's see how the state defines a WWC:

From the Notice of Determination, Tennessee General Aquatic Resource Alteration Permits, July 12, 2005:

Wet weather conveyances are defined in the Rules of Tennessee Department of Environment and Conservation (1200-4-3-.04) as "man-made or natural water-courses, including natural water-courses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and which do not support fish or aquatic life and are not suitable for drinking water supplies." Wet weather conveyances are not streams.

If the requirements of the permit to protect down gradient streams are met, then the division does not believe that there is a basis

for excluding any particular category of activity. The division is not proposing to change the scope of our regulatory program with the reissuance of this general permit, which has been in place for many years. By rule, the wet weather conveyances are not limited to only man-made conveyances.

The division frequently, when requested, conducts jurisdictional determinations to identify streams. The division believes that it is not necessary or practical to have notification for the alteration of wet weather conveyances. Since wet weather conveyances include any area with flow during a rain event, including curbs and gutters or any swale in an upland area, we cannot realistically be involved in alterations to them on a case-by-case basis. It is the burden of the applicant to choose to move forward under the coverage of the general permit or to request the guidance of the division for stream determination. An erroneous decision of the applicant, which results in the unauthorized alteration of a stream can result in enforcement action.

Applicants include government agencies, road builders, building contractors, developers, farmers, and land owners. Since it is the applicant who must request guidance and then suf-

fer the consequences of the decision, the supporters of HB 1617 and of SB 633 want a law to take the guesswork out of the process. To this writer, TDEC's method of determining the difference between a stream and a WWC is confusing, and changes are needed. But I urge caution.

The bills focus on whether or not a WWC has the right water chemistry to support aquatic life. Implied in the bills is the message that if there is no life in the water, then it has little value in-and-of-itself. There is a definite disconnect in that logic, and that's where I have a problem.

WWCs form - at least in part - the headwaters of every stream. The quality of the water there is typically higher than farther downstream. And there are WWCs all along the creek or river, and the condition of each of these directly determines the water quality in the larger stream. In combination, WWCs play a large role in water quality for every stream.

Not every wet-weather conveyance leads to a creek, river, or lake. But all bodies of water are connected to wet-weather conveyances. So what comes through them has a direct impact on a stream's water quality. Wet-weather conveyances serve important – and often overlooked - functions:



1) They are places for storm runoff to accumulate before it enters streams. This allows for a more gradual rise in stream flow than if runoff flowed directly from a graded lot or paved surface. Absence of WWCs in watersheds leads to rapid runoff into creeks, quickly causing flooding and the associated erosion and property damage.

2) A large percentage of the sediment in runoff is filtered by the plant material in the WWC; this keeps the sediment from being carried into the stream, where it clogs habitat for aquatic organisms. Despite what the bill states, if the WWC is eliminated, the filtering capacity is gone, and sediment will be carried into the creek.

Aquatic habitats that can be negatively-affected by the passage of HB1617 and SB 633 include the following:

Drought-stricken streams: During the summer of 2007, many free-flowing streams in Tennessee dried up. During drought conditions, the bills would view these as “wet-weather conveyances” or “limited-resource waters”. These habitats could be legally be modified resulting in severely-compromised water quality downstream.

Wetlands: Wetlands perform a variety of functions: protec-

tion from flooding; filtering and purifying of surface waters; and serving as habitat for a variety of aquatic species, ranging from macro-invertebrates to mammals and birds. Many wetlands are seasonal in nature, swelling in size after rainfall, and shrinking during dry periods. If a wetland were to dry up in summer, for example, the bills would view these as “limited-resource waters”. The wetland could then be regraded, losing its ability to hold water. Then the runoff would find its way directly into a stream, quickly raising the water level and contributing to flash flooding.

Ephemeral streams: These are watercourses which flow only after rain or snow-melt and have no base flow component. They are typically found just below ridges and hilltops. In Tennessee, ephemeral streams are abundant in the Highland region of Middle Tennessee (including the Duck-River watershed); on the Cumberland Plateau; and in the Appalachian Mountains. They also occur near streams in West Tennessee. When it rains, the precipitation is gathered by ephemeral streams which take the water to free-flowing streams. The bills propose to separate the ephemeral streams from “waters of the state”, which

are the free-flowing creeks and rivers. The fact remains that they are not separated at all. Nearly all of the runoff in the rivers starts in the ephemeral streams. They may be in the woods or they may be at the edge of a parking area. And although ephemerals are unable to support aquatic life due to the terrain, they have great worth as recreational, natural, and scenic areas. Examples of this are found in the Duck-River watershed’s many waterfalls that flow only after heavy rains.

In summary, you may not have to look very far to find a wet-weather conveyance – the ditch that runs along the edge of your driveway may only hold water during-and-after it rains, but where does the runoff go? If you follow the flow, it probably leads to a free-flowing stream. Those little places are important, because they are what make a watershed. So there you have it. Yes, Tennessee does need a simpler method to guide planners, developers, and builders. But legally chopping off these parts of our watersheds would be a big step backward regarding Tennessee’s water quality. Instead, let’s work together with all the stakeholders in each watershed to ensure that, whatever the job is, it gets done right.

—Marshall Spencer
DRWA President



THE ACCIDENTAL OUTDOORSWOMAN

Rites of Spring

I LOVE the rain for our watershed but it is playing havoc with my outdoor time! I FINALLY got my raised garden bed built, filled with compost and topsoil, and planted seeds before the heavens opened up again. But it didn't take long for little lettuces, chards, onions, and herbs to make their appearance. It seems they almost sprouted overnight. The yard is looking faboo as well. Haven't the azaleas been lush this year? And the grass is the greenest that I have seen it since forever. Alas, my lilacs were blooming just as the last frost blew through.

I hope that you will take a while to enjoy the spring; it's one of my favorite times. Here are a few suggestions:

Take a walk in your neck of the watershed to check out the bountiful spring wildflowers and budding trees. Everything is simply gorgeous this year with the warmer temps and all the rain we have had. The redbuds and dogwoods look like Mother Nature has brand new lacy garments. And the birds are EVERYWHERE! A couple of weekends ago, I added four new birds to my life list in just a matter of hours. I watched a robin the other afternoon as I was getting out of the car carry a twig almost as big as she to a nest. And they have been keeping an eye on the compost heap as the wigglers make their escape only to be scooped up for lunch or dinner.

And the fish are just rearing to jump on a hook. Renew your license; get a pole and CATCH YOU SOME FISH! Take them home with you for dinner. Or send them back to their homes if they aren't ready or if you are a catch-and-release fisher. Either way, I cannot think of a better way to spend a couple of hours than sitting on a creek or river bank casting a line into the water. And we have some of the finest fishing in all of Tennessee right here in the Duck River watershed!

Plant something. Dig a little bed and plant some sweet peas. They will reseed year after year and are so pretty. If you have children, let them plant something and watch it grow and produce. When my youngest nephew was little, we planted one of his mama's flower beds every year with something – sunflowers one year, mini pumpkins another. One year, we had the best crop of watermelon vines you ever saw – alas, only two tiny watermelons resulted but they were delicious! Or help them plant a small tree and

watch it grow as they do. Take their picture beside it each year and put it in a little album for them.

It matters not what you do, just that you savor the spring-time – the renewal of the earth after dormancy.

I DO want to tell you about a new Adopt-a-River initiative that DRWA has launched this year. The Adopt-a-River will expand on the many clean-up activities already in



place along the Duck River. We hope to have the entire river adopted before the end of two years. The Adopt-A-River program encourages individuals, neighborhoods and organizations to “adopt” a section of the Duck River by performing river cleanups in assigned areas. The overall objectives of the program are to keep the river free of litter while educating the public on the effects of nonpoint source pollution. Nonpoint source

pollution enters our waterways when rainfall washes oil, lawn fertilizers and clippings, litter and other trash into our storm drains. These pollutants are then washed into the nearest body of water, usually a neighborhood creek, and then to the Duck River – not to a water treatment facility like most believe.

Community organizations, fishing or boating clubs, school groups, businesses, associations or any environmentally concerned citizen can adopt a section of the Duck River or its tributary streams. Organized groups will pick up trash and debris along the river banks. Each group must commit to a minimum of one cleanup per year for two consecutive years. Groups may also choose to monitor their adopted section for pollution incidents and take “bug” samples to check the health of the river.

Adopters will receive assistance in how to conduct a safe river clean-up and publicizing their activities, as well as recognition in *The Freshet* and recognition at DRWA meetings in addition to a certificate of participation in the program. For more information, please email info@duckriverwatershed.org.

—sherryb

Volunteers Make a Difference

Forty-Two Plant Trees at Spring Hill's Harvey Park

Forty-two volunteers assembled with shovels and picks in hand to plant trees on the banks of McCutcheon Creek at Harvey Park in Spring Hill. McCutcheon Creek is listed as an impaired stream by TDEC (303d List). The City of Spring Hill has partnered with the Tennessee Environmental Council to help restore its streams and tributaries to ecological health. Spring Hill Storm Water Coordinator, Beau Herring, and City Parks and Recreation Director, Kevin Fischer, have done an excellent job in identifying property located next to streams and creeks throughout the City that need water quality restoration. The City leadership has welcomed the expertise and assistance of the Council to help improve water quality in the Duck River Watershed, which is one of the most biologically diverse watersheds in the United States. Together, the City of Spring Hill and the Tennessee Environmental Council are making a difference for the sake of our environment and public health.



The park has severe erosion at a storm water conveyance that discharges near the creek banks. The erosion was also caused by the rush of storm water that flowed down the steep slopes surrounding the drainage conveyance. Volunteers planted fifteen Indigo bushes (*Amorpha Fruticosa*) on the creek bank, which are excellent shrubs for heavily eroded stream banks. The shrub like trees will stabilize the bank, help stop erosion into the creek and improve water quality... Volunteers also planted trees around the rim of a storm water detention area. This site is prime for establishing a rain garden -- a future project planned for Harvey Park provided by the Council.

—Kyle Duvall, Tennessee Environmental Council

RIVERWATCH

Lewis County Landfill Unlikely to be Established

An industrial landfill proposed for the outskirts of Hohenwald will not likely be established, after the state determined a private act passed by the county and the state legislature prohibited landfills within five miles of the Buffalo River, the largest tributary of the Duck River.

Two Mount Pleasant aluminum processors had made repeated attempts to establish a landfill for salt cake, a by-product of their operations. While salt cake is not classified as hazardous waste, it does react by releasing ammonia and heat if exposed to water. The company had sought to establish landfill sites at Mount Pleasant and Columbia before making plans to use a site south of Hohenwald owned by Lewis County Mayor Kenneth Turnbow.

Lewisburg Approves Landfill Expansion

The Lewisburg City Council approved expansion of a Waste Management, Inc. landfill on Fountain Creek in a 4-1 vote on November 18. The expansion plan will now be taken under review again by the Tennessee Department of Environment and Conservation.

The current landfill is nearly full, and without expansion, will have to cease taking garbage within a year. Opponents protest expansion of the commercial facility, arguing Marshall County should not be a "dumping ground" for out-of-county waste.

New Hohenwald Treatment Plan Results in Cleaner Waters

The City of Hohenwald has upgraded its municipal treatment plant to include a new lagoon treatment facility with spray irrigation on 200 acres. As a result, the city is no longer discharging effluent into Rockhouse Creek. DRWA applauds the city for its efforts to improve water quality in the watershed.



Bedford County "Stimulus Bill" Projects Will Affect River

Several highway projects proposed for partial funding under the American Recovery and Reinvestment Act and state bond issues.

TDOT is proposing further widening of U.S. Highway 41a between Shelbyville and Tullahoma; this will entail construction of a second Duck River Bridge at Mullins Mill, new bridges at Thompson Creek and Shipmans Creek, and new culverts for small tributaries.

Replacement of the Belmont Avenue (Tennessee Highway 130) Bridge is also a part of the request.

The largest project would be construction of a bypass around the northeast side of Shelbyville, between US 231 and US 41a. This would affect Butler Creek and 8 of its tributaries, six tributaries of Little Hurricane Creek, and a wetland.

Columbia Unveils Contract to Sell Water to Spring Hill

The Columbia Power & Water System unveiled a contract to sell water from the Duck River to the City of Spring Hill. The ten-year contract would authorize the sale of 1 million gallons a day to Spring Hill. CP&WS General Manager Jim Clark termed the amount "miniscule" at work session of Columbia's Board of Public Utilities, adding the withdrawal would pose no threat to the river.

Some attending the meeting asked about the need for the contract. Spring Hill is currently selling water to the Hillsboro, Burwood & Thompsons Station Utility District, so the need for additional water was in question. The contract does specify that the it can be cancelled if Spring Hill sells additional water to other utilities, but the current need is uncertain.

Columbia council member Debbie Matthews wondered why the city utility would be wanting to sell water when only a year earlier, it had been urging customers to conserve water.

Mr. Clark reported that water usage in Columbia had declined, and this could result in higher rates for customers. The sale to Spring Hill could generate \$675,000 annually in revenue for the utility, which has recently upgraded its wastewater treatment capacity from 15 million gallons per day to 20 mgd.

The contract will have to be approved by Spring Hill's Board of Mayor and Aldermen to take effect.

F L O T S A M

NRCS Adds Additional Incentives for Wetlands Restoration

The U.S. Department of Agriculture (USDA) has made restoring wetlands more attractive for private landowners under several initiatives and programs.

Additional payment incentives are now available through the Conservation Reserve Program (CRP) wetlands and bottomland hardwood conservation practices. Under an ongoing (continuous) signup, participants can apply for 10 to 15 year contracts on eligible lands for the CP23 Wetlands Restoration-Floodplain, CP23A Wetlands Restoration-Nonfloodplain, and CP31 Bottomland Timber Restoration on Wetlands practices. In addition to the standard 50% cost-share for habitat restoration costs, they can now also receive a 40% Practice Incentive Payment on eligible restoration costs, a \$100 per acre up-front Signing Incentive Payment, and an extra 20% added to the annual rental payment.

In addition, new State Acres for Wildlife Enhancement (SAFE) practices were announced including three CP38B "Wetlands for Wildlife" practices. These SAFE wetlands practices have the same incentives as the above-mentioned practices except for the additional 20% extra on the annual rental payment.

Land eligible for any of the CRP or CRP-SAFE practices must meet certain cropping history criteria. Check with your local USDA Service Center for eligibility.

In the new Farm Bill passed by Congress in May and effective as of Oct. 1, 2008, lands enrolled in the Wetlands Reserve Program (WRP) under permanent easements, 30-year easements, or restoration agreements will receive compensation rates that are significantly higher than they were prior to Oct. 1. The WRP also pays for 100% of the restoration costs for permanent easements and 75 percent for 30-year easements and restoration agreements. To be eligible for WRP, the land must have been owned for at least seven years.

"This is a significant move towards achieving wetlands acreage goals set by TWRA for adequate management of the many wildlife species that use wetlands, wetland buffer areas, and bottomland hardwoods," said TWRA Executive Director Gary Myers. "The USDA and private landowners are essential partners in increasing wildlife habitat on private lands."

Interested landowners can apply for these programs and find out more information at their local USDA service center. The TWRA has several wildlife biologists that can provide technical assistance to landowners on both wetlands and uplands habitats and assistance on navigating conservation programs. Visit www.TWRAPrivatelands.org and click on the county the land is in for their contact information.

Trout Conservation License Plate Nears Release

Trout Unlimited has announced that more than 1,000 specialty license plates for trout conservation have been presold, and that the Tennessee trout conservation license plate should be available from county court clerks' offices later this spring.



The plate features Tennessee's only native trout, the Brook Trout. Some funds from the sale of each plate will go to Trout Unlimited for conservation of trout streams.

TWRA Names New Executive Director

Ed Carter has been named the new executive director of the Tennessee Wildlife Resources Agency. Carter was selected by the 13-member Tennessee Wildlife Resources Commission in February.



Carter, the current Chief of the TWRA Boating Division, assumed his new duties on March 1. Carter replaces the retiring Gary Myers, who has served as TWRA Executive Director since 1978.

CALENDAR

IMPORTANT EVENTS THROUGHOUT THE WATERSHED

ADDITIONAL INFO ONLINE AT DUCKRIVERWATERSHED.ORG

APRIL

April 25. Duck River Watershed Association Annual Meeting, Henry Horton State Park, Chapel Hill, 10 AM. Invited speaker: Doug Markham, Tennessee Wildlife Resources Agency.

MAY

May 23. Revetment Work/Stream Restoration, Harvey Park, Spring Hill. Sponsored by the Duck River Opportunities Project. For more information, contact Kyle Duvall at 615 414-3217.

May 23 & 24. Archaeoskills Weekend, Old Stone Fort State Park, Manchester. Discover the significance of Old Stone Fort, the culture and lifestyles of Woodland Indians and the goals and techniques of archaeology. For more information call: (931) 723-5073.

JUNE

June 6. 33rd Annual Duck River Member-Guest Float. Sponsored by Tennessee Scenic Rivers Association. Paddle a scenic section from Lillards Mill to Hardison Hill. Meet at Henry Horton State Park at 9 AM. For more information, contact Frank Fly at 615 896-3600.

June 27. Duck River Cleanup, Shelbyville and Bedford County. Meet behind the Shelbyville Power and Water System at 7:30 AM.

June 27. Revetment Work/Stream Restoration, Jerry Erwin Park, Spring Hill. Sponsored by the Duck River Opportunities Project. For more information, contact Kyle Duvall at 615 414-3217.

JULY

July 25. Revetment Work/Stream Restoration, Wyngate Estates, Spring Hill. Sponsored by the Duck River Opportunities Project. For more information, contact Kyle Duvall at 615 414-3217.

Do you know of an event that should be included in our calendar? Please send it to our email address, info@duckriverwatershed.org.

Saving Water in the Lawn and Garden

Everyone wants a beautiful lawn or garden, but that doesn't mean one has to use a lot of water. There are ways to make a great display while saving water...and money!

✓ Water deeply, but not too often. Don't water in the middle of the day, as much of the water will evaporate. Use a soaker hose or drip irrigation if possible.

✓ Mulch around plants to conserve moisture. This will also keep down weeds!

✓ Capture rainfall for garden use in a rain barrel or a cistern.

✓ Choose the right plants for your soil conditions, amount of sun, and which are pest-resistant. Consider using native plants; they're used to our conditions and usually require little water.

✓ Compost garden wastes and food scraps, and add the finished compost to your garden. Compost is rich in nutrients, and plants do better and need less water in healthy soil.

✓ After clearing your garden in the fall, plant a cover crop like winter rye to enrich the soil and to prevent soil erosion. Till it in in the spring.

✓ Aerate and de-thatch your lawn in spring to make water more available. Don't cut your grass short, which causes stress. Mulch-mow to help naturally fertilize your lawn and conserve moisture.

✓ Use fewer herbicides and pesticides, and choose the least toxic ones possible to reduce pollution of streams caused by runoff. Don't apply chemicals during or shortly before a rain.

WATER, WATER, ANYWHERE?

It's not often that I want to rewrite a story. This case is the exception. When we began working on this edition of *The Freshet* early this winter, reports from the Tennessee Valley Authority's Normandy Reservoir were mixed. The good news was that the water level in the reservoir is five feet above the point it was at the same time last year. The bad news was that it was five feet below where it should be.

2008 was a wetter year than 2007, but rainfall was still been a bit below average. (as of November 30, rainfall recorded in Nashville was 1.17 inches below normal). There had been even less rainfall in the upper part of the Duck River Watershed. And if rainfall doesn't fall in the 195 square-mile catchment area for the reservoir, it doesn't reach the lake. The lower part of the watershed was listed as "abnormally dry" on the U.S. Drought Monitor, and parts of the upper watershed were listed as being in a "severe" drought.

TVA began drawing down the reservoir in late summer to provide for flood control storage. On December 1, the agency reduced the flow from the reservoir from 155 cubic feet per second to 120 cfs, a standard operating procedure.

Water has to be continually released from the reservoir to dilute pollution downstream and to provide enough water to maintain water quality and aquatic life. The biologically-diverse Duck River is home to hundreds of species, including a number of endangered mussels. These species, as well as the quarter-million Tennesseans that live and work in the watershed, depend on clean water flows.

If adequate rainfall doesn't replenish the water level in Normandy Reservoir, utilities along the river may be forced to institute water restrictions when the drier summer months arrive. To help prevent this situation, utility systems and the Duck River Agency asked TVA to reduce winter releases from Normandy Dam even further. However, the Tennessee Department

of Environment & Conservation indicates more research is needed before it can grant approval to the request. Specifically, it will require TVA to complete an Environmental Impact Assessment to determine the affect of the reduced flow on water quality, the stream's native species, and water-based recreation. As the dam is a federal installation, an EIA is required under federal law for a change in operations.

During last year's extreme drought, several utilities along the river enacted voluntary water restrictions. Continued drought may force them to be enacted again, and if conditions deteriorate, mandatory restrictions could be imposed. But conservation practices, though helpful, cannot solve the problem by themselves. Even if every spigot in the valley had been turned off last year, the water level in Normandy Reservoir would have fallen. As long as releases from the reservoir are required to dilute pollution downstream, the water supply in the Duck River Valley will remain uncertain.

Now here's the part of the story I've been happy to rewrite. As of the moment, as we prepare to send this newsletter out, the water level in Normandy Lake stands at 869.46', just six inches or so below normal winter pool level. And it's raining. Heavy rains in January actually dropped so much rain that TVA had to release ten times the normal flow of water. [*cont'd next page*]



During last year's drought, water levels in Normandy Reservoir dropped so low that boat ramps no longer reached the water.

WATER, WATER, ANYWHERE?

[cont'd]

As of this writing, the lower part of the watershed is back to normal precipitation, though the upper part is still listed as “abnormally dry.”

Does this mean we’re in the clear, and the water crisis is over? No, it means we’ve only been spared for a year. The rainy weather we’re having now could come to a halt, and if another prolonged drought sets in, we’re going to be facing water shortages again just as we did last year.

While the immediate pressure may be off, this is actually an excellent time to make our concerns known regarding long-range water planning for the entire Duck River watershed. We know the Tennessee Duck River Development Agency has selected a firm to begin a water supply plan for its five member counties. Our watershed association of course supports planning for water supply and water quality for

ALL the counties along the river, not just those that are members of the development agency. We’re interested in sustainable, long-term solutions, and believe this is the time for new ideas. We want to assure adequate water for all the residents of the watershed, as well as our amazingly diverse aquatic life. The time is past for old ideas like damming up the river or its tributaries, a “solution” that would have a negative effect on many of the river’s species. Instead, we need to look at water allocation for the whole region, improved conservation procedures, strict enforcement of regulations against interbasin transfers, and the possibility of supplementing water from Duck River with water from other sources. All of you in the watershed--farmers, residents, sportsmen, and utilities--need to be heard. Your Duck River Watershed Association will see that you are.

--Richard Quin

Rain Gardens: Your Personal Contribution to Cleaner Water

Rain gardens are a way for homeowners as well as businesses to participate in the reduction of polluted runoff, simply by planting a specialized garden. Rain gardens are an infiltration technique - water is captured in a garden planted with wild flowers and other native vegetation, and the water has a chance to slowly filter into the ground rather than run off into the storm sewer. It is a popular way to reduce nonpoint source pollution and protect our lakes and streams. The rain garden fills with a few inches of water after a storm and the water slowly filters into the ground rather than running off to a storm drain. Compared to a conventional patch of lawn, a rain garden allows about 30% more water to soak into the ground.

Why are rain gardens important? As cities and suburbs grow and replace forests and agricultural land, increased stormwater runoff from impervious surfaces becomes a problem. Stormwater runoff from developed areas increases flooding; carries pollutants from streets, parking lots and even lawns into local streams and lakes; and leads to costly municipal improvements in stormwater treatment structures. By reducing stormwater runoff, rain gardens can be a valuable part of changing these trends. Rain gardens can be any size from tiny to large. The size depends

on how much time you have to invest and how much money you are willing to spend on plants. Rain gardens work for us in several ways:

- They increase the amount of water that filters into the ground, which recharges local and regional aquifers;
- They protect communities from flooding and drainage problems;
- They protect streams and lakes from pollutants carried by urban stormwater – lawn fertilizers and pesticides, oil and other fluids that leak from cars, and numerous harmful substances that wash off roofs and paved areas;
- They enhance the beauty of yards and neighborhoods;
- They provide valuable habitat for birds, butterflies and many beneficial insects.

A free publication, *Rain Gardens: A How-to Manual for Homeowners*, by the Wisconsin Department of Natural Resources, provides guidelines to get you started on your own rain garden. The publication may be downloaded by going to their website: <http://www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/rgmanual.pdf>.

Commodores in the Community

Vanderbilt Students Contribute to Watershed Restoration

They reside in places like New York, Chicago and Washington, DC, and in cities and towns in Virginia, Georgia, Alabama and good ole “Rocky Top Tennessee”... What is the common thread that binds these bright eyed and energetic young adults together? All of these young leaders of tomorrow are Vanderbilt students... A couple of times a year, Vanderbilt students volunteer their time, energy and helping hands to help make the Metropolitan Nashville area a better place to live by assisting a diverse group of charitable organizations, as well as citizens in need of a helping hand... On a sunny day in August, these energetic commodores chose to spend their Saturday working with the Tennessee Environmental Council to benefit the environment and public health.

Students drove “earth anchors” into a stream bank along a stretch of approximately 40 feet of a tributary to Grassy Branch, and then secured cedar revetments to the embankment to stop soil erosion from occurring during storm water runoff... Some History: When the Wyngate Estates community in Spring Hill was in the process of development, the developer knocked down trees in the riparian natural area all the

way to the stream bank on Grassy Branch, a Duck River/Rutherford Creek tributary listed on TDEC’s “impaired (polluted) streams list” (303d list)... Tennessee Environmental Council staff identified at least 80 points of erosion on Grassy Branch -- the result of a greatly reduced riparian natural buffer zone, due to development.

It is important to note that the city of Spring Hill has taken action in passing a “Water Quality Buffer Zone” ordinance to assure that riparian natural zones are protected during all present and future construction/development projects, and should be commended for working to protect the ecological health of aquatic environments in the city of Spring Hill for the sake of the environment and public health. However, the damage is done, and mitigation, which includes attaching cedar revetments to stream banks to reduce the threat of erosion, and planting trees to stabilize stream banks and filter pollutants found in storm water runoff, will continue to be a challenge for the City of Spring Hill for several years to come.

—Kyle Duvall

Tennessee Environmental Council



Student volunteers pose with Kyle Duvall (r), TEC’s Organizational Advancement Director



TEC River Restoration Assistant Kami Bruner supervises mulching around newly planted trees.

Help Save the Piney River Stream Gage!

The U.S. Geological Survey has listed the stream gage on the Piney River at Vernon in Hickman County as one of 262 stream gages nationally that it plans to discontinue or convert from continuous recording to stage-only recording. The Piney River gage is one of the original gages in Tennessee and has been collecting water flow data for 83 years.

USGS is discontinuing these gages because of a lack of funding to support their operation. The Tennessee Department of Environment & Conservation had been providing match funding for state gages, but cut off funding for 24 gages as part of state budget cutbacks. Without the

match funding, USGS will cease to operate and maintain these gages.

These gages are important to scientists for the monitoring of water levels and quality. Fishermen check them to see if it's safe or worthwhile to fish a stream, and paddlers check them to see if there is enough water.

Please take a moment to urge TDEC to reconsider the funding cuts. Email TDEC Commissioner Jim Fyke at jim.fyke@state.tn.us and Deputy Commissioner Paul Sloan at paul.sloan@state.tn.us. And please contact your state representative and state senator for their support.

Spring Hill Official Recognized as "Storm Water Coordinator of the Year"

Beau Herring, Storm Water Coordinator for the City of Spring Hill, received the first annual "Storm Water Coordinator of the Year" award from the Tennessee Environmental Council at the Summit for a Sustainable Tennessee in November.

Herring was recognized for his efforts to stop pollution in Spring Hill for the sake of the environment and public health. Spring Hill passed a storm water ordinance in November 2007 to protect streams and to establish riparian buffer zones, and Herring has worked tirelessly to enforce the ordinance and to educate landowners and developers about protecting streams. Soon after the ordinance went into effect, he issued 21 citations in a single day. A year later, he issued only two in a single month.

Spring Hill resident Kyle Duvall, who supervises watershed restoration work on the Duck River and its Rutherford Creek tributary for the Tennessee Environmental Council, nominated Herring for the award. Duvall called Herring "a tremendous role model for stormwater coordi-

nators throughout the state to emulate; he is a deserving recipient of the Storm Water Coordinator of the Year Award."

--from TEC



*Spring Hill Stormwater Coordinator
Beau Herring [TEC photo]*

KNOW YOUR WATERSHED

Leipers Creek

Rising on the Tennessee Valley Divide in southwestern Williamson County, Leipers Creek is the principal tributary of the Duck River in northwestern Maury County and passes through some of the richest farmland in the state. This perennial stream is not to be confused with *Leipers Fork* just to the north; that stream is a tributary of the Harpeth River, part of the Cumberland River drainage.

Leipers Creek starts as a small trickle at Mobley's Cut, where the short-lived Middle Tennessee Rail Road cut through the Tennessee Valley Divide. It runs generally south southwest, crossing into Maury County and emerging into its plain near the old community of Bethel.

Bethel was located in the old North Carolina Military Reservation, and many families in the area trace their land grants back to land grants given by North Carolina to Revolutionary soldiers. One of the earliest settlers here was Capt. Joseph Wakefield, and many of his descendents still live in the neighborhood.

Two miles further downstream the old village of McKnight is passed. There's not much here but an old railway depot, a reminder that the old Middle Tennessee Rail Road once followed the Leipers Creek Valley.

Four miles further down the creek passes through Fly, Tennessee, which again formed around a Revolutionary War grant to John Fly, an early preacher and faith healer. His descendent, Wilson Fly, runs

Fly Store, the hub of commerce in the community.

Four miles south, Leipers Creek runs through Water Valley. The town here took its name after an 1874 flood that swept the valley virtually clean. The area around is some of the finest farmland in southern Middle Tennessee; the valley is not particularly wide so fields are not immense, but the soils are extremely fertile, and the farms are among the most prosperous in the region.

No named creeks flow into Leipers Creek, but named tributaries are (listed from the headwaters to the

end of the creek) Skelly Branch, Sulphur Springs Branch, Sparkman Branch, Fox Branch, Smith Branch, Sewell Branch, Hastings Branch, Adkisson Branch, Indian Camp Branch, Hill Branch, Elam Branch, Page Branch, Kinderhook Branch, Oakley Mill Branch, Pigg Branch and Holmes Branch.

Leipers Creek, like Leipers Fork to the north, takes its name from an early settler and not surprisingly, another Revolutionary War soldier, Hugh Leeper, who settled in the vicinity. How the spelling of the name changed over time is not recorded.

--Richard Quin



BACKWATER

The Duck River Watershed Association has revamped its internet website, and now offers much new content, including river and association news, a greatly expanded calendar of events, information on river access sites, copies of our newsletter, and much much more.



Check us out at

www.duckriverwatershed.org

DUCK RIVER WATERSHED ASSOCIATION

PO Box 141
Duck River, TN 38454

www.duckriverwatershed.org

Our Mission:

The Duck River Watershed Association works to preserve, protect, enhance, and restore the ecological health and biodiversity of the Duck River and the natural resources within its watershed for the people, fish, and wildlife who depend on it. We accomplish this through advocacy, education, community activities and involvement, and identifying and studying potential threats to the watershed system.



JOIN THE DUCK RIVER WATERSHED ASSOCIATION!

The Duck River Watershed Association wants your participation, and to encourage membership, we're offering an inexpensive introductory rate. You can join the DRWA for the year for just \$5 per household. That's right, just five dollars! Your early contribution will help us contact more interested parties and aid us with our organizational efforts.

NAME _____

OTHER PARTICIPANTS IN HOUSEHOLD _____

ADDRESS _____

CITY, STATE, ZIP _____

TELEPHONE (OPTIONAL) _____

E-MAIL (OPTIONAL) _____

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Questions? Contact us at info@duckriverwatershed.org