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Land & Water

Kentucky Environmental and Public Protection Cabinet

Land Air & Water

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Public Protection Cabinet
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Hill named head of EPPC cabinet



On Sept. 7, Governor Ernie Fletcher announced the appointment of Teresa J. Hill as secretary of the Environmental and Public Protection Cabinet (EPPC). Hill replaces LaJuana S. Wilcher, who served as Governor Fletcher's EPPC secretary since December 2003.

"It has been my honor to serve the people of the Commonwealth and this administration in previous positions," said Hill. "I look forward to this new and challenging role and to helping Governor Fletcher continue to build strong communities across Kentucky."

Hill previously served as vice chair of the Kentucky Public Service Commission (within the EPPC) and also in the Commerce Cabinet.

"Teresa's experience in public service and in private practice as an attorney will serve her well in this new position," said Governor Fletcher.

Hill is taking command of one of the largest and most diverse cabinets in the state. Shortly after taking office in 2003, Governor Fletcher combined the former Natural Resources and Environmental Protection, Labor, and Public Protection cabinets to form the EPPC. The new cabinet encompassed many of Kentucky's regulatory agencies—those regulating the environment, coal mining, horse racing, banking, insurance, occupational safety and health, workers' compensation, alcoholic beverage control, charitable gaming and professional boxing and wrestling.

Hill is a native of Whitley County and a graduate of the Salmon P. Chase College of Law and Morehead State University. She was a partner of the law firm of Brown & Hill, PLLC in Corbin, where she practiced primarily in the areas of banking, business transactions and employment law.



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Umbrella magnolias (*Magnolia tripetala*) display brilliant fall foliage in the Red River Gorge. Photographed by Merle Wasson of Paris, Kentucky.



Restoring the giant

Tree in Adair County figures prominently in American Chestnut Project

By Chuck Wolfe
Office of Communications and Public Outreach

A remote pasture in Adair County has become a forward post in a battle to thwart an alien invader and re-establish a once-mighty giant of the Appalachian forest.

Here is to be found one of the last of the great American chestnut trees that once dominated and defined hardwood forests of eastern North America. It is about 90 years old, ravaged and gnarled. Lightning has taken a toll, as has an Asian blight fungus that nearly destroyed the species in the first half of the 20th century.

“This is the only tree in this part of the state that was here when the blight came through,” said Kenny Pyles, Kentucky Division of Forestry ranger for Adair and Russell counties.

Researchers want to learn why it survived. “It’s the healthiest of the large, surviving chestnuts,” said Mike French, a University of Kentucky graduate student and researcher. “It’s my favorite tree I’ve ever seen in the entire world.”

Foresters now pollinate the Adair County tree by hand and collect its own pollen for institutions such as the University of Kentucky, University of Tennessee, Penn State and Virginia Tech, all of which are trying to develop planting stock resistant to the blight.

The American chestnut, a tree ideal for so many uses that it became ingrained in Appalachian culture, was nearly wiped out after the killer blight was unwittingly ushered into the United States in imported trees around 1904. By 1940, nearly all of the great trees were gone, and eastern forests were transformed.

Adair County’s tree came to light when its landowner approached the Division of Forestry to report that he thought he had a full-grown American chestnut. Pyles, of the

Continued on Page 12

TOP: Kenny Pyles pollinates the Adair County “mother tree” using pollen from American chestnut trees in Christian and Metcalfe counties. Pyles and other foresters also collect the mother tree’s pollen for use in pollinating other trees. Researchers are trying to develop trees resistant to a blight that nearly wiped out the American chestnut trees in the first half of the 20th century.

FAR LEFT: Seth Dykes pollinates the tree from a bucket truck.

UPPER and LOWER LEFT: Once pollinated, the blooms are covered with waxed paper bags. Successful pollination will result in chestnuts.

Photographs by Chuck Wolfe



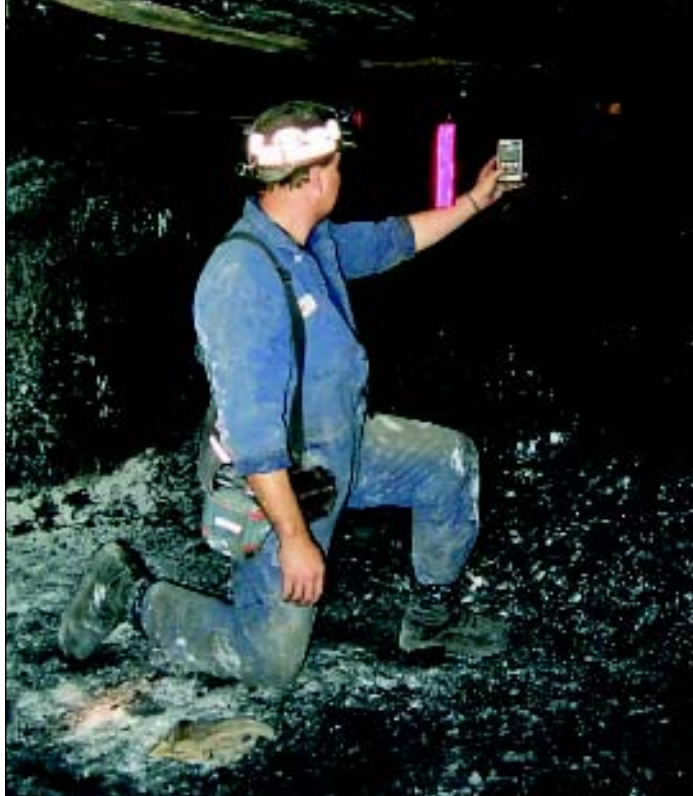
Emergency regulations enacted to implement new mine safety laws

By Linda Potter
Department for Natural Resources



These Harlan County miners are operating a roof bolting machine (left) to reinforce the mine ceiling and a gas monitor (right) to check for levels of methane, carbon monoxide and oxygen. Methane can build up, causing fires and explosions in mines.

Photos by the Department for Natural Resources



Two major pieces of legislation, Senate Bill 200 and House Bill 572 passed by the 2006 General Assembly, place Kentucky in the forefront of mine safety initiatives, including addressing the growing problem of substance abuse in the mining community.

Kentucky is the first state to require drug testing of miners as a condition of miner certification and to allow post-accident testing. Also for the first time, SB 200 grants the Department for Natural Resources (DNR) authority to assess penalties against mines for violation of roof control and ventilation plans. Both are critical to assuring mines remain safe. By law, the DNR commissioner can assess penalties up to \$5,000 for each violation. In addition, there are substantial penalties for mines that fail to report a serious mine accident within 15 minutes to authorities. The new authority granted mine safety officials by these new laws substantially increases Kentucky's ability to address mine safety concerns.

Both bills directed the DNR to develop regulations that address the manner and method of assessing penalties for violations of roof control and mine ventilation plans, and violations for failure to timely report a serious mine accident. In addition, the legislation directed the agency to develop regulations setting out an appeal process for mines that are assessed penalties for violation of mine safety laws and for miners whose

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OMSL Mine Emergency Hot Line

Senate Bill 200 amended KRS 352.180 to require mining entities to notify the Office of Mine Safety and Licensing (OMSL) within 15 minutes of having actual knowledge of a mine emergency and access to a communication system.

The Department for Natural Resources has established a toll-free telephone number, which is manned 24 hours a day, seven days a week to facilitate the reporting of a mine emergency. The following list describes those immediately reportable accidents, injuries and emergencies:

- Death of an individual at a mine
- Serious physical injury to an individual at a mine, which has a reasonable potential to cause death
- Entrapment of an individual for more than 30 minutes
- Inundation of a mine by water
- Inundation of a mine by gases
- Mine fire
- Explosion
- Other serious accident

Failure to notify OMSL of these emergencies within the specified time frame can result in significant penalties, ranging from \$10,000 to \$100,000.

Successful rescue efforts depend on rapid response. OMSL has taken another huge step in mine safety with the Mine Emergency Hot Line.

Wanted: brownfields

By Amanda LeFevre

Division of Compliance Assistance

We've all seen them—buildings that are vacant, run down and have a questionable environmental history. They dot the landscape of Kentucky from the lakes of the west to the mountains of the east.

Brownfields are properties that are abandoned or underutilized due to real or perceived contamination. They include factories, abandoned gas stations, former dry cleaning establishments, dumps, mine-scarred lands and illegal drug labs. There are an estimated 8,000 brownfields in Kentucky alone. The Kentucky Brownfield Program is looking at ways to inventory those properties in order to proactively market them and return them to productive use.

Creating an inventory is a monumental task, but when implemented it will serve as a resource to those wanting to locate a business in Kentucky, wishing to expand a current business or wanting to create a public use area. It will also be a tool for cities that seek to redevelop neighborhoods that have experienced decline. These areas are often blights on the community and do not contribute jobs for the surrounding neighborhoods or tax income for the city. However, by listing and redeveloping these target sites, a city can restore properties to active use, increase the job and local tax base, mitigate public health concerns and improve community image in areas that desperately need to be rehabilitated.

Properties on the inventory will be eligible for brownfield redevelopment incentives that can aid in the assessment and redevelopment of the property. The program staff will be actively marketing the sites to those interested in brownfield

BACKGROUND: *The Derby Tank Cars building in Meade County is one of many brownfields in Kentucky waiting to be redeveloped.*

INSET: *Herb Petitjean (center), Kentucky Brownfield Program coordinator, studies the map of a brownfield site with local officials who are interested in its redevelopment.* Photos by Amanda LeFevre

redevelopment. The objective is to create a climate in which brownfield redevelopment can become the norm rather than the exception to the rule.

The Kentucky Brownfield Program has a mechanism in place for voluntarily submitting a property to the inventory. The program Web site was updated to include a page for registering a brownfield, and the page includes information and forms for submitting a brownfield property. Property owners eventually will be able to register a brownfield electronically. A Web interface is being designed that will streamline the process and make it easier for all parties involved. A Web page is also being created for posting the inventory. Check out the brownfield inventory registration Web page at <http://www.dca.ky.gov/brownfields/>



Innovative conservation district creates big buzz in small town

By Connie Gray
Division of Conservation

Nearly 100 people came to celebrate the grand opening of the newly renovated Lyon County Conservation District office that was recently purchased by the district.

“This is a huge dream come true for us,” District Chairman Rod Murphy said.

The future of the conservation district was uncertain when the U.S. Department of Agriculture (USDA) decided to move its personnel and equipment out of Lyon County and relocate it to the adjoining county.

“There were some tough decisions to be made and a lot of hard work to make this happen,” Murphy added. “We as a conservation district wanted to keep our legacy going.”

The Lyon County Conservation District was organized in 1950 and is a subdivision of state government. The district has a special purpose—to assist landowners and land users in solving soil and water resource problems, setting priorities for conservation work to be accomplished, coordinating the federal, state and local resources needed to accomplish this work, providing leadership at the local level, and providing a means for interested local citizens to work together.

The local board of supervisors has been seeking a permanent site for the district since 1996 when the USDA decided to relocate its personnel to Princeton. Currently, all programs and services offered through the Natural Resources Conservation Services (NRCS) are available through the Lyon County Conservation District. NRCS staff is in the office at least two days per week and can be found in the county assisting landowners and land users on a daily basis.

With much coordination and partnerships with various local, state and federal agencies, the dream of a permanent office became a reality. Federal programs are available through the Lyon County Conservation District as are state and local



The new Lyon County Conservation District office at 650 Trade Avenue in Eddyville.
Division of Conservation photo

cost-share programs. Sign-ups for the state cost-share program, commodity storage and forage improvement programs have been offered.

The district’s mission is to advise and assist Lyon County residents in wisely managing and using their natural resources through education, information and technical assistance.

Across the United States, nearly 3,000 conservation districts—nearly one in every county—are helping people with water, forests, wildlife and related natural resource concerns. In 56 years of existence for the Lyon County Conservation District, the landscape of rural America has changed dramatically. Farmers use new technology and increase productivity while practicing environmentally sound conservation management. Crop residue management and no-till planting are now the norm. Land managers have altered their practices—to the land, to the crops they plant and how much chemicals and fertilizers they use—to protect the natural resources we all enjoy and depend on.

Challenges still exist to properly manage livestock waste and fertilizers to protect soil and water resources.

A special thanks ...

The Lyon County Conservation District owes its success to an innovative board of supervisors.

Board members are Chairman Rod Murphy, Vice Chairman Tommy Dyer, Secretary-Treasurer Sandra Rudolph and members Tom Jones, Brian Dunning, Kenneth Cotton and Bob Austin.

Conservation efforts are also focused on preserving wildlife, wetland management, flood prevention and urban expansion.

“I enjoy working with the land users in Lyon County, and I am especially proud of having local expertise available in our office and wish to express my sincere appreciation to the Kentucky Soil and Water Conservation Commission for providing financial assistance to make this project a success,” Murphy said.

While in Lyon County, stop by and visit the new facility at 650 Trade Avenue in Eddyville.



Voting for license plate a big draw at exhibit

By Cindy Schafer

Office of Communications and Public Outreach

The Kentucky State Fair offers many things to many people. Some go solely for the food and carnival rides, while others enjoy browsing through sections that exhibit creative talents—like baked goods and quilting—on display throughout the South Wing.

However, many visitors choose to walk along “Main Street” where they can learn about their government and other topics such as energy conservation, agriculture, education and health. Along the “street,” fairgoers fill their bags with informational brochures and freebies aplenty.

This year at the Environmental and Public Protection Cabinet (EPPC) exhibit, fairgoers picked up those plentiful brochures and also voted for their favorite design for the next “Nature’s Finest” license plate.

A state-of-the-art, touch-screen voting machine made it easy to choose from 11 prospective designs for the special plates, sales of which contribute \$10 each to the Kentucky Heritage Land Conservation Fund.

“I love gardening,” said Susan Smith of Lexington. “I chose the coneflower design because it represents native plants in Kentucky that have endured and



survived despite vehicle usage and pollution,” she said.

Wanda Harbin, of Louisville, chose plates depicting two of Kentucky’s natural wonders—Cumberland Falls and Natural Bridge. “I think these particular plates depict Kentucky more than any of the others,” she said.

Other proposed designs—besides Smith’s favored orange coneflowers and the now-familiar cardinal, bobcat and Viceroy butterfly—are hummingbird, mallard, Kentucky bass, dragonflies and lady slippers with salamander.


Voting on the nature plate designs was just one of the informative activities at the EPPC booth.

Firefighters from the Division of Forestry were on hand to talk about arson and fire prevention around the home.

A water conservation house was constructed by the Division of Water, which illustrated the amount of water that is used and simple ways to reduce consumption.

Boys and girls also registered to win a new bike, donated by the Division for Air Quality, by answering questions about how to keep the air clean.

The EPPC’s Department of Public Protection, which

regulates the horse industry in Kentucky, invited renowned Hall of Fame jockey Pat Day to sign autographs, while children experienced the thrill of being a jockey by riding the Equicizer. Fairgoers also “walked the line” with fatal vision goggles provided by the Office of Alcoholic Beverage Control. 

TOP: Susan Smith takes a moment to vote for her favorite license plate design.

BOTTOM (left to right): Former jockey P.J. Cooksey helps a youngster ride the Equicizer. Jockey Pat Day spent a few hours signing autographs for the public. The water conservation house provided measurements of water commonly used for daily tasks.

Photographs taken by Cindy Schafer



Caves offer potential for rare species

By Mary Jean Eddins
Kentucky Heritage Land Conservation Fund

Metcalfe purchase will protect caves and springs at Dry Fork Gorge

Metcalfe County Fiscal Court has purchased a unique 80-acre tract using funds awarded from the Kentucky Heritage Land Conservation Fund Board.

Known as Dry Fork Gorge, this project has the potential to be a very exciting and valuable asset to the county and surrounding area.

Dry Fork Gorge is situated at the headwaters of the Little Barren River, an important tributary of the Green River. Protection of such sites not only enhances the water quality of the watershed but helps protect aquatic species



endemic to these waters.

“Dry Fork Gorge represents an excellent opportunity to protect an important part of the upper Green River landscape,” said Dr. Richard Kessler, board member representing the Kentucky Academy of Science.

Possibly the most interesting and exciting attributes are four caves found on the property. The caves and springs have not been given common local names, indicating they were not widely known or used. Because the caves indicate very little disturbance and are in pristine condition, it is possible that they provide habitat for very rare cave species.

“In addition to the caves and springs on the property, which are significant natural features in their own right, the site is also a source of water for the Little Barren River, a tributary of the biologically rich upper Green River,” added Kessler.

Preliminary inspections by cave experts have indicated the



Heritage Land Conservation Fund Board members visit the Dry Fork Gorge area to explore the streams and caves found on the property. Board photos

presence of bats and a multitude of cave invertebrates.

Scientists are excited about the possibility of finding species unique to the caves.

Formal inventories for both natural and cultural resources will begin soon. Currently, there is no public access to the property as inventory work is ongoing, and trails have not been mapped or installed. Eventually, public access will be available on a restricted basis.

The fund board, partially supported by proceeds from the sale of nature license plates, awards grants for the purchase and preservation of selected natural areas and wildlife habitat across Kentucky. Dry Fork Gorge is just one example of how the proceeds are used.

For more information contact Mary Jean Eddins at (502) 573-3080 or mary.eddins@ky.gov.



Ambient air quality report is released



LEFT: A facility performs a stack test to assess emissions, under supervision of Kentucky Division for Air Quality staff.

Division for Air Quality photo

BELOW: Air pollution sources include industry, vehicle emissions and energy production.

harmful to public health and the environment. There are two types of standards—primary, which protects the health of sensitive populations like children and the elderly, and secondary, which protects animals, crops, vegetation and buildings.

In response to the Clean Air Act, the Kentucky Division for Air Quality produces an annual Ambient Air Quality Report. The report's data, compiled

The state has operated an air quality monitoring network since July 1967. Last year's network included 114 monitors in 37 counties. Monitoring locations are selected with EPA guidance and in general are established near high population areas or air pollution sources. Each year, locations are reviewed to ensure adequate coverage is being provided.

Because it is imperative that the air monitoring data be accurate and precise, the Division for Air Quality has an extensive quality assurance program. Staff members audit every monitor quarterly to ensure that each is operating properly. Monitoring data is used to demonstrate compliance with and/or progress made toward meeting ambient air quality standards, to identify pollution trends, evaluate public health impacts and determine the need to initiate emergency control procedures.

The report contains sections on each criteria pollutant with monitoring data contained in a table arranged alphabetically by county. Wet deposition, toxics and industrial data are presented separately.

The report is composed and arranged in an attempt to make it user friendly. It includes a National Ambient Air Quality Standards table, a listing of monitors by county and maps indicating locations, and pollutant trends graphs. It can be accessed at <http://www.air.ky.gov/programs/airmonitoring/>

For questions concerning this report, e-mail Andrea.Keatley@ky.gov or telephone (502) 573-3382.



By Andrea Keatley Division for Air Quality

Ambient air quality affects nearly everyone in Kentucky. Poor air quality can cause lung disease and worsen already existing cases of heart and lung ailments. Ambient air pollution comes from automobiles, outdoor burning, industrial emissions and small engines like lawn mowers.

In Kentucky, people living in cities and around metropolitan areas feel the effects of air pollution more often than those individuals living in a more rural setting. However, regardless of the surroundings, Kentuckians should be aware of the air that they breathe.

The Clean Air Act requires that the U.S. Environmental Protection Agency (EPA) set National Ambient Air Quality Standards for pollutants considered

by the Technical Services Branch, presents a summary of results from monitoring outdoor concentrations of air pollutants in the Commonwealth.

The primary source of data is the Air Quality Surveillance Network operated by the Kentucky Division for Air Quality. The report also contains monitoring data collected by the Louisville Metro Air Pollution Control District, the National Park Service and some industries.

The public can access air quality information daily on the Division for Air Quality Web site at www.air.ky.gov.

Transportation and air quality conference a success

By Elizabeth Robb
Division for Air Quality



A little short on cargo space, perhaps, but you can't beat the exhaust control.

Segway, the self-balancing "human transporter" conceived as a nonpolluting alternative for personal urban transit, was among "green" vehicles examined at an air

quality conference hosted this summer in Frankfort by the Kentucky Transportation Cabinet and the Kentucky division of the Federal Highway Administration (FHWA). Local, state and federal officials gathered together to learn what is happening in various government programs to mitigate air pollution due to transportation.

The conference addressed FHWA and Environmental Protection Agency (EPA) policy, new SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act) regulations, new particulate matter standards and hot spot analysis, CMAQ (Congestion Mitigation and Air Quality) issues, modeling, alternative fuels, air quality outreach and new technology. Speakers included national, regional and local experts. The conference also had several break-out sessions, providing the opportunity for roundtable discussions that allowed air quality professionals to share "best practices." Best practices are transportation initiatives that have a beneficial environmental impact.

Transportation Conformity Expert Lynora Benjamin of EPA Region 4, gave

a regional update on transportation conformity. The goal of transportation conformity is to bridge the gap between air quality and transportation planning. Transportation conformity was established by the Clean Air Act and applies to areas that have been designated as nonattainment or maintenance of the federal ambient air quality standard for ozone, carbon dioxide, particulate matter and oxides of nitrogen.

Lona Brewer, with the Kentucky Division for Air Quality, highlighted toxic air pollutants (TAPs), the contribution of transportation to TAPs in Kentucky's air and the upcoming TAP regulation anticipated by the division.

The conference had multiple speakers and exhibitors. In addition, conference attendees got some experiential education, with the opportunity to ride Segways and get closer looks at hybrid electric vehicles.

For more information, contact Elizabeth Robb at (502) 573-3382 or Elizabeth.robbs@ky.gov.



Kentucky Division for Air Quality's Elizabeth Robb gives the Segway a spin around the parking lot to test its maneuvering capabilities. Photo by Bernadette DuPont, FHWA

Emergency regulations enacted to implement new mine safety laws

Continued from Page 2

certifications have been suspended for violation of their drug/alcohol free condition of certification.

Both bills became effective on July 12. Therefore, DNR had to implement emergency regulations that would become effective on the same day. These new emergency regulations address both the penalty assessment process and the appeal process as required by both bills.

The method of assessing penalties takes into account the violation history of the mine, both in Kentucky and in other states; the level of cooperation with investigators by the company, severity of the violation and whether it placed miners in imminent harm, as well as any mitigating or aggravating circumstances related to the violation. In the event that a violation of the roof control or mine ventilation plan results in the serious physical injury or death of an individual, the maximum penalty of \$5,000 will be imposed.

The Mine Safety Review Commission has authority to impose penalties of not less than \$10,000 nor more than \$100,000 for failure of a mine to timely report a serious accident to the Office of Mine Safety and Licensing. In setting the amount of the fine, the Mine Safety Review Commission will consider the size of the mine, the violation history of the mine, the degree of negligence and the gravity of the company's actions putting persons at risk of serious physical injury or death. The Mine Safety Review Commission also has the authority to revoke, suspend or probate a mine license for this offense.

These emergency regulations will remain in effect for 180 days or until the ordinary regulations become effective. Ordinary regulations implementing these same provisions were filed at the same time the emergency regulations were filed. The ordinary regulations are currently out for public comment.





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By Don Dott
Kentucky State Nature Preserves Commission

The year 2006 marks the 30th anniversary of the Kentucky State Nature Preserves Commission (KSNPC). Its mission is to protect the biological diversity of the Commonwealth and to educate Kentuckians as to the tremendous values of these living resources. The commission engages in three primary functions to achieve these goals—it employs a group of biologists to inventory Kentucky for rare species and intact natural communities; natural heritage data specialists to compile, manage and distribute the collected biological information and stewardship experts to care for the nature preserves that are acquired to serve as biological refuge. The commission is a small agency but since 1976 has grown from an initial staff of three to the current staff of 24.

Kentucky State Nature Preserves

Botanists, a terrestrial zoologist (birds, mammals, reptiles and amphibians), an invertebrate zoologist, an aquatic zoologist and ecologists comprise the biological inventory section. These staffers are tasked with determining what species and natural communities are rarest in the state and most in need of protection and recovery. Their information has enabled the commission to publish a series of seven scientific books, with the most recent being “A Guide to the Freshwater Mussels of Kentucky.” A biodiversity atlas for Kentucky is now being written, which will be more approachable for the general public, and is due out in 2007. The commission also provides natural heritage data over the Internet. The Web site includes a rare plant database, the commission’s list of state rare and extirpated species, an ecological communities list and a nature preserves directory, among other resources.

The natural heritage data staff compile and maintain the information gathered by the inventory biologists and ecologists in a GIS-compatible database known as Biotics. This information is used to publish the state list of rare species and is fed into an international biological database, under the auspices of NatureServe, which is utilized in all 50 states, Canada and Latin America. Information collected by the commission’s biologists from field surveys, literature reviews and public and private collections is used to provide the most accurate and complete rare species and natural communities database in Kentucky.

The stewardship staff are entrusted with the care and management of the state-wide system of nature preserves. The commission currently has 23,187 acres in 56 dedicated state nature preserves and conservation easements scattered across the state. The preserves are found from the forests along the Virginia border on Pine Mountain to the wetlands and cypress/tupelo swamps along the Mississippi River and from the riparian forests and glacial outwash cliffs in northern Kentucky to the barrens and glades in the counties bordering Tennessee.

State nature preserves are provided the highest level of protection given to any state land—to protect these living treasures for perpetuity. Their stewardship is a difficult and continuous task, involving natural community





Commission celebrates 30 years

1976-2006

restoration, battling invasive exotic species and guarding against varied forms of damage and vandalism.

The nature preserves are the biological jewels of Kentucky, which the commission strives to safeguard and perpetuate for current and future generations.

Since the KSNPC can't simply purchase enough nature preserves to protect all the threatened species and diverse natural communities of Kentucky, it also must work with private landowners for biodiversity conservation.

The commission has 4,653 acres in 57 sites enrolled in the Natural Areas Registry program. This voluntary program provides official recognition to property owners with rare species or other natural values on their land to encourage them to provide proper management. KSNPC also utilizes the federally funded Landowner Incentive Program to work with private landowners for rare plant protection. It can provide expert advice, guidance and financial incentives through matching funds for practices benefiting rare species, such as invasive plant control.

Over the span of 30 years there have been quite a few positives in the conservation arena. Among other gains, the commission has witnessed a rebound in the number of Great blue herons (*Ardea herodias*), which allowed its removal from the special concern list, and Eggert's sunflower (*Helianthus eggertii*) was delisted from its federally threatened status and is now under a five-year monitoring plan.

In 2005, the KSNPC observed an increase in the number of federally listed endangered Indiana bats (*Myotis sodalis*) for the first time in 15 years, and it has protected 21 of the state's 60 known vegetation communities, 86 rare animal and 117 rare plant species in the nature preserves system.

On the less positive side, in some areas the commission has seen a continued decline of freshwater mussels, despite concerted

Opposite page: (top left) *Eggert's sunflower (*Helianthus eggertii*)*, photographed by Heather Housman, KSNPC; (center left) *Stone Mountain State Natural Area and Wildlife Management Area in Harlan County*, photographed by Marc Evans, KSNPC; (bottom left) *Indiana bat (*Myotis sodalis*)*, photographed by John MacGregor.

This page: (top) *Cypress swamp in Carlisle County*, photographed by Greg Abernathy, KSNPC; (bottom) *Great blue heron (*Ardea herodias*)*, photographed by Lana Hays.

efforts at watershed protection; the arrival of the hemlock wooly adelgid, and a close call last year with Sudden Oak Death syndrome.

The threat of invasive exotic species remains a close second to the outright conversion of land as the two major threats to biological diversity protection—not only in Kentucky but on a global scale.

The commission has accomplished a great deal in 30 years due to the committed work of its biologists, preserve managers, data managers and the administrative staff who provide grease



to the wheels of this agency.

Thus far, it has protected 23,187 acres of land. However, in a state of approximately 25 million acres, work remains to be done. A great deal of inventory work remains, and the KSNPC needs to expand into areas not now covered. It also needs to increase its stewardship staff and add a public education position.

Big challenges remain, but with dedicated staff and an increasingly aware and supportive population, Kentucky's outstanding biological heritage will continue to enable and enrich our lives and those of future generations.



Kentucky Pride Fund is evolving

State will offer recycling grants

By Division of Waste Management staff

The Kentucky Pride Fund was established in 2002 by the General Assembly to address three solid waste issues—roadside litter abatement, cleanup of open dumps and remedial work at old, closed landfills or historic landfills.

Projects, in partnership with local governments, are funded by an environmental remediation fee of \$1.75 per ton paid by generators of waste disposed at municipal solid waste landfills. In addition, money for work at historic landfills comes from a \$25 million bond issue. The fund is administered by the Environmental and Public Protection Cabinet’s (EPPC) Division of Waste Management.

Under legislation passed this year, the fund is undergoing some changes:

Illegal dumps—Counties will get an upfront grant rather than a reimbursement. They also agree to provide a 25 percent match for dump cleanups costing less than \$50,000. The EPPC now has the option of waiving the 25 percent match on a single dump costing more than \$50,000 to remediate. In August, Governor Ernie Fletcher announced the awarding of more than \$2.8 million in grants from the Kentucky Pride Fund for cleanup of 475 illegal open dumps in 56 counties (see shaded box).

Significant progress has been made in addressing the illegal dump issue, due in large part to a statewide cleanup and an education campaign by local, state and federal agencies, said R. Bruce Scott, director of the EPPC Division of Waste Management.

“Partnering with counties and providing these important state cleanup dollars has proven highly successful in ridding our hillsides and waterways of illegal dumps over the last decade,” said Sara Evans, manager of the Recycling and Local Assistance Branch, which is part of the Division of Waste Management. “Kentucky is well on its way to being one of the cleanest states in the nation, receiving calls from other states to learn more about our program’s success.”

Continued on next page



Illegal dump grants awarded by county	
Barren County Fiscal Court	\$20,771.87
Bell County 109 Board	\$41,287.50
Bracken County Fiscal Court	\$36,412.06
Breathitt County Fiscal Court	\$11,643.72
Breckinridge County Fiscal Court	\$24,408.00
Butler County 109 Board	\$3,642.92
Calloway County Fiscal Court	\$40,030.71
Carroll County Fiscal Court	\$2,091.75
Carter County Fiscal Court	\$42,758.86
Casey County Fiscal Court	\$99,667.50
Christian County Fiscal Court	\$6,888.76
Clark County Fiscal Court	\$2,475.00
Crittenden County Fiscal Court	\$4,439.52
Edmonson County Fiscal Court	\$19,824.75
Fleming County Fiscal Court	\$2,072.87
Grayson County Fiscal Court	\$3,712.50
Hardin County Fiscal Court	\$33,926.29
Harlan County Fiscal Court	\$103,968.45
Hart County 109 Board	\$12,591.45
Henderson County Fiscal Court	\$7,902.82
Henry County Fiscal Court	\$4,417.61
Johnson County Fiscal Court	\$4,055.98
Knott County Fiscal Court	\$15,377.07
LaRue County Fiscal Court	\$21,235.57
Laurel County Fiscal Court	\$28,875.00
Lewis County Fiscal Court	\$42,765.30
Lincoln County Fiscal Court	\$597.03
Livingston County Fiscal Court	\$19,836.00
Logan County Fiscal Court	\$13,559.10
Madison County Fiscal Court	\$16,222.77
Marion County Fiscal Court	\$74,698.09
Marshall County 109 Board	\$13,897.07
Mason County Fiscal Court	\$2,393.56
McCracken County Fiscal Court	\$1,000,000.00
McLean County Fiscal Court	\$371.60
Meade County 109 Board	\$18,551.02
Muhlenberg County Fiscal Court	\$51,266.06
Northern Ky. Solid Waste Management Area (Boone and Kenton counties)	\$167,994.15
Ohio County Fiscal Court	\$5,954.11
Oldham County Fiscal Court	\$22,500.00
Owen County Fiscal Court	\$100,000.00
Owsley County Fiscal Court	\$99,861.06
Pike County Fiscal Court	\$13,313.85
Rockcastle County Fiscal Court	\$129,248.22
Shelby County 109 Board	\$52,300.00
Spencer County Fiscal Court	\$11,523.00
Taylor County Fiscal Court	\$16,957.50
Trigg County Fiscal Court	\$11,381.10
Trimble County Fiscal Court	\$21,018.75
Union County Fiscal Court	\$759.62
Warren County Fiscal Court	\$49,018.67
Washington County Fiscal Court	\$26,340.27
Wayne County Fiscal Court	\$226,109.22
Webster County Fiscal Court	\$17,291.72
Wolfe County Fiscal Court	\$33,613.74
Woodford County Fiscal Court	\$15,000.00

LEFT: *These drums, tires and appliances from a dumpsite in Mercer County near Salvisa were cleaned up using Kentucky Pride Fund money.* Division of Waste Management photo

OPPOSITE PAGE: *Recyclables are being baled at the Mason County Recycling Center.* Photo by Dara Carlisle

Restoring the giant

Continued from Page 1



Eric Gracey (left) and Mike French discuss Kentucky's reforestation initiative, in which hardwood trees are planted on strip-mined land.

Photo by Chuck Wolfe

Two American chestnuts, probably 10 to 15 years old, were found in Russell County in 2004. "We had high hopes for those trees," Pyles said. "But I went back the next year, and they'd both died."

It is an irony of the American chestnut that its seedlings abound in the wild. They spring from the ground but with rare exception die quickly. Each year Division of Forestry personnel transplant seedlings to the state nursery in Morgan County. The seedlings all will die, but the idea is to get them big enough to produce a nut. "We hope to get 10 to 12 years out of them," Eric Gracey, a division forester, said.

Division of Forestry district office in Campbellsville, had heard such things before. "I don't know how many we've looked at," he said. "Very few turn out to be American chestnut" – and the few that do almost invariably die young.

The only hope of re-establishing the species lies in breeding for blight resistance because the blight is still here – it lives in oaks – and cannot be eradicated.

The Americans are being crossed with Chinese chestnuts, which have the desired resistance but lack the American's size and straight form. "We would like to breed out as many of the Chinese characteristics as possible," French said. "My ideal is to create a tree that can fill the role that the American chestnut once played in our forests."

A long-term restoration effort, the American Chestnut Project, is cultural as well as biological. Its many partners include Kingdom Come Settlement School in Letcher County, where students stage an annual chestnut festival and take oral histories of older residents who remember the great trees.

"It is each generation's responsibility to take care of our natural resources," said Betty Caudill, the school's principal. "Our students have seen firsthand that unintentionally a valuable resource can be almost wiped out by the actions (of) human beings, and hopefully, through their efforts and many others working together, this resource can be restored."

Brenda Richardson, a Berea College education professor, videotaped the pollination of the Adair County tree in late June. "I love it because of its tenacity – the fact that it just keeps throwing up shoots from the roots," she said.

Richardson shows prospective teachers how to turn the great tree's story into classroom lessons. "It's a good way to teach everything they need to teach," she said. History, science, culture – even literature. "There's poetry in this tree," she said.



Kentucky Pride Fund is evolving

Continued from previous page

Recycling grants—Grants will be available under the newly expanded fund. Kentucky's recycling rates have improved over the last several years. However, the state is behind the national average of 28 percent. The low recycling rate could be attributed to several factors including:

- Lack of recycling infrastructure and education. Only 27 percent of Kentucky households have access to curbside recycling.
- Cheap landfill rates. At \$28 per ton, Kentucky's disposal rates are approximately \$3 per ton less than the average of surrounding states.
- Absence of state-funded recycling grants. Former EPPC Secretary LaJuana S. Wilcher made recycling a priority. Using recycling grants and other strategies under a recycling implementation plan, the cabinet hopes to achieve a 35 percent recycling rate by 2010 and nurture a

recycling economy that will attract green businesses to Kentucky.

Recycling already plays a significant role in the state's economy. The recycling industry is estimated to provide at least 10,000 jobs. A number of companies that use recycled materials locate here due to the centralized location for shipping in recyclables and shipping out the end products.

Household hazardous waste collection—The U.S. Environmental Protection Agency estimates that the average home can accumulate 100 pounds of household hazardous waste. Under another expansion of the fund, the state will continue to sponsor local collections



of mercury and other hazardous materials.

For more information, contact the Recycling and Local Assistance Branch at (502) 564-6716, visit www.recycle.ky.gov or www.waste.ky.gov or e-mail Sara.Evans@ky.gov





Educators study abroad



For several Kentucky educators the classroom got much bigger this summer. Led by Dr. Joe Baust, from Murray State University, 26 educators studied sustainable development and environmental education during a two-week professional development program in Austria, Germany and Switzerland.

“It is important that people have first-hand experiences that reinforce that the way to improve the land, air and water through individual efforts,” stated Baust, program director. “We observed and interacted with individuals in Austria, Germany and Switzerland who understand the importance of their efforts as a collective, to sustain their environment through individual contributions and by being civically engaged,” he said.

Program participants toured a green

school and community center in Vorarlberg, Austria. Both facilities use passive and active solar. In Switzerland, participants observed how the owner of a building supply store used his computer to open and close second store windows at night to trap cool air at a second store 60 kilometers away. The Vorarlberg recycling center,

Hausle, processes what Kentuckians typically recycle but at a much greater rate. The facility also produces roof tiles and pavers on site with collected plastic.

The group also visited an international biosphere reserve in the Austrian Alps, where several farmers have committed to learning, practicing and teaching others about organic agriculture.

Continued to Page 16

By Elizabeth Robb, Division for Air Quality, and Kate Shanks, Office of Communications and Public Outreach

TOP LEFT: *The PassivHaus in Chur, Switzerland, demonstrates many aspects of passive solar technology. The wetland at the front of the building provides thermal mass, which helps to keep the building cool in the summer and warm in winter. The building also uses automated outdoor shades that open and close depending on heat conditions, and recycled newspaper insulates the walls.*

CENTER LEFT: *The Vorarlberg recycling center forms recycled plastic into pellets to make pavers, which can be used in place of concrete sidewalks. They are more permeable than concrete and are softer under foot.*

CENTER RIGHT: *This hybrid electric-bicycle-car is street legal.*

BOTTOM: *This massive active solar array is tied to the electric grid. Whenever the building creates excess energy, it is sold to the utility.*

Photos provided by Elizabeth Robb and Kate Shanks

Planning for healthy watersheds

By Brooke Shireman
Division of Water

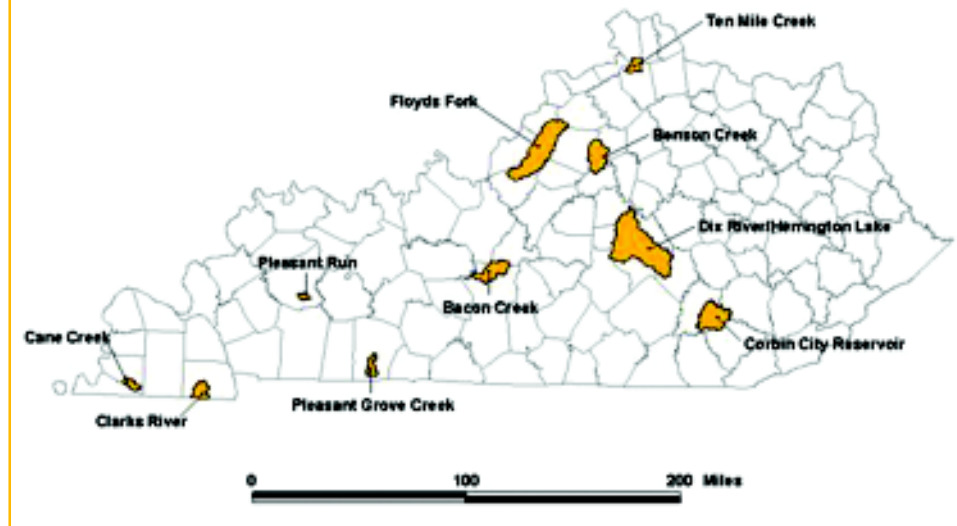
The Clean Water Act (CWA) was enacted in 1972 to provide guidance and authority to address all pollutants affecting water quality. Over the years, government agencies and the private sector have successfully addressed a multitude of point source pollutants—pollution that comes from a single, identifiable source, such as an industrial plant.

In subsequent years, it has become obvious that nonpoint source pollutants affecting water quality must also be addressed. Nonpoint source (NPS) pollution is contamination carried into streams and lakes by runoff from rainfall and snowmelt. In 1987, Congress amended the CWA to establish the Section 319(h) Nonpoint Source Management Program and grant program to address runoff pollution.

Until recently, the focus of the NPS grant program's pollution control efforts precluded any watershed planning efforts. The focus of the grants was on implementation—putting best management practices on the ground as quickly as possible. When the majority of the projects failed to improve water quality, EPA listened to states' concerns and amended the rules to allow watershed planning.

Today, watershed plans have become an integral component of the Nonpoint

319(h) Nonpoint Source Funded Watershed Plans



Source Pollution Control Section 319(h) grant program. Developing a watershed plan requires an integrative approach. Watershed plans document how, when, who and what. All aspects of the watershed should be considered when evaluating pollutant sources, problems and solutions. The plans must include a detailed assessment of the watershed so that implementation efforts (restoration and protection) are directed to the most problematic sources.

The plans provide a comprehensive analysis of the watershed by addressing both point and nonpoint sources of pollution. In addition, the plans identify both regulatory and nonregulatory management measures to address these problems. The 319(h)-funded watershed plans are required to contain a minimum of nine elements, ranging from load reduction estimates to public outreach and education.

A comprehensive watershed plan provides a holistic approach for restoration and protection throughout the watershed. To be effective it should also be dynamic. As water quality improves or new threats emerge, the plan must be adapted to compensate for changes.

Kentucky has 10 watershed projects funded by 319(h) (see map for details).

Most are still under development. Once the plans are complete and submitted to the Division of Water for review and acceptance, 319(h) funds can be used to implement management measures outlined in the plan.

Management measures should result in a reduction of nonpoint source pollution and lead to water quality improvements.

We encourage your participation in identifying causes, sources and solutions to the state's water quality problems. What can you do to help? If you live in one of the areas identified on the map, contact the basin coordinator for your watershed. Contact information for basin coordinators is located at http://www.watersheds.ky.gov/people/bc_contacts/default.htm

EPA has developed guidance for this type of watershed planning, and a Kentucky-specific guidebook is being developed. An electronic copy can be downloaded at http://www.epa.gov/owow/nps/watershed_handbook/. To learn more about the Kentucky Nonpoint Source Pollution program and 319(h) funding visit <http://www.water.ky.gov/sw/nps/> or contact the Nonpoint Source Section Supervisor John Eisiminger at (502) 564-3410.



The nine elements of 319(h)-funded watershed plans

1. Identify causes and sources of pollution that need to be controlled.
2. Develop the load reductions needed to achieve water quality goals.
3. Develop management measures to achieve goals.
4. Identify the technical and financial assistance needed to implement the plan.
5. Develop an information/education component.
6. Develop an implementation schedule.
7. Develop interim milestones to track implementation of management measures.
8. Develop criteria to measure progress toward meeting watershed goals.
9. Develop a monitoring component.

Kentucky NBA chapter holds inaugural meeting

By Amanda LeFevre
Division of Compliance Assistance

The Kentucky chapter of the National Brownfield Association held its first meeting this summer in Bowling Green, serving as a gathering place for brownfield professionals to discuss current trends and issues facing brownfield redevelopment in Kentucky and across the nation.

Brownfields are abandoned or underutilized industrial or commercial properties where development is hampered due to the real or perceived presence of environmental hazards.

Every state has brownfields, and Kentucky is no exception. It is estimated that Kentucky has about 8,000 brownfield sites. However, the state also offers some brownfield success stories that now bring economic benefits and environmental improvements to their surrounding communities—Papa John’s Cardinal Stadium, Louisville Slugger Field, Home of the Innocents and the Historic Trolley Barn site, which will be the new home of the Kentucky African-American Heritage Museum. These properties became redeemed, revitalized and reused—while saving Kentucky’s precious greenfields in the process.

The chapter meeting provided attendees with workshops on the Voluntary Environmental Remediation Program, the marketing of municipally owned properties, environmental deed restrictions as well as techniques for using risk-based screening levels for brownfield sites.

A panel of brownfield specialists was on hand to provide helpful insight on how to successfully complete a brownfield redevelopment deal. This panel consisted of private sector representatives and government officials who presented information on private and public funding venues, liability issues and common mistakes that communities often make in brownfield redevelopment.

(Left to right): Speaker Jody Richards, Bowling Green Mayor Elaine Walker, former EPPC Cabinet Secretary LaJuana S. Wicher and Maysville Mayor David Carmell attend Kentucky’s first NBA chapter event.

Photo by Amanda LeFevre

“I work for state government, and we’re here to help you.”

*LaJuana S. Wilcher, former secretary
Environmental and Public Protection Cabinet*

The chapter meeting also provided a sounding board for those involved in industry. In Kentucky, companies interested in brownfield redevelopment have had to deal with many barriers—from inadequate liability protections to a lack of incentives that make brownfield redevelopment as desirable as developing a greenfield.

LaJuana S. Wilcher, former secretary of the Environmental and Public Protection Cabinet, opened the session for discussion by stating, “I work for state government, and we’re here to help you.”

Participants voiced both frustrations and ideas for improvement regarding brownfield redevelopment. Among the suggestions were expanded liability coverage, increased incentives, simplified state processes and the creation of a Brownfield Redevelopment Authority.

“We are pleased to announce that property owners will soon be able to voluntarily submit information on their brownfields so they eventually can be included in the state inventory,” Wilcher

added. (See *Wanted: brownfields* on Page 3.)

The Kentucky Brownfield Program is taking those suggestions under advisement and looking at ways that policies and procedures can be changed to make the process more user friendly.

The highlight of the two-day event was a guided bus tour of brownfield sites and redevelopment projects currently under way in Bowling Green. The tour provided real-world examples of properties once considered urban blight, but which will one day provide the area with many productive and economic advantages.

The National Brownfield Association, based in Chicago, was established in 1999 as a nonprofit, educational organization dedicated to stimulating the responsible redevelopment of brownfields. It is the premier association for government, businesses and individuals involved in the redevelopment of brownfields. Kentucky’s chapter was established last year. The conference marked the first of many brownfield-related events to come. ❖



Educators study abroad

Continued from Page 13



International biosphere reserves are places where partnerships are formed that can strengthen the economic structure of a relatively undeveloped area. These partnerships, new agricultural practices, and the tourism draw of an international biosphere reserve have allowed local farmers to continue existence as farmers.

While at a farm within the international biosphere reserve, program participants were treated to a short hike along a farm road with views of the Austrian Alps. The hike led them through grazing cattle and goats to a small building where farmers produced cheese that they sold within the community.

Knowledge gained about sustainable development and environmental education was not the only benefit. The cultural immersion was just as important. Participants traveled throughout Austria, Germany and Switzerland learning about the culture. They stayed with host families in Austria, which allowed them to experience day-to-day living.

At one of the homes that hosted participants, the “haus frau” would wrap her food waste in newspaper each day and take it to the organic waste bin on the corner of her street. There, it would be picked up for composting at the Vorarlberg



TOP: Mader Elementary School was designed as a glass cube, minimizing the number of resources needed to build, heat, cool and light the building. The learning environment is considered just as important as educational content at the school. All classrooms feature daylighting, carbon monoxide sensors and windows that open. The school is completely free of volatile organic compounds or other indoor air quality contaminants often found in building supplies and furnishings.

ABOVE: This solar array, at Mader Elementary, was purchased by a cooperative of interested citizens. Each year the mayor hosts a community event, using funds saved from purchasing grid power, for the citizens who helped purchase the panels. The gathering features displays designed to raise awareness about other environmental issues.

Photos provided by Kate Shanks

recycling center. She didn't have a clothes dryer—preferring instead a clothes line in the backyard. Two rabbits, in mobile cages, were her lawnmower.

The majority of participants were kindergarten through 12th-grade classroom teachers. This experience broadened teaching opportunities in the classroom.

“It was probably one of the most valuable experiences in my entire life,” said Craig Morris, science teacher at Livingston Central High School.

“Living as a part of the culture for two weeks allowed me to look at the world in a different way, and different perspectives are always useful in the classroom,” he said.

Jessica Watkins, kindergarten teacher at Benton Elementary School, said the trip “enabled me to see the world from another perspective and learn about another culture.”


“This experience will allow me to educate my students on the importance of taking care of our environment. I want them to understand that it is a global responsibility, not just an issue in our small part of the world,” she said.

A few participants were nonformal educators who teach about the environment to people of all ages.

“The people of Bregenz, Austria, and the other areas we visited in Switzerland and Germany are making an environmental difference because they are committed to sustainability,” said Sr. Amelia Stenger, of Mt. St. Joseph.

“This experience has made me even more committed to doing something in our part of the state to help educate people about good stewardship of Earth,” she said.

Shortly before leaving Europe, Baust asked all participants to share their experiences with students and others in their communities back home.

“The Bregenz, Austria, Environmental Program has made a lasting impression on all who have participated, but the challenge is to return home and remember it takes each of us contributing and working together to make a difference to an earth that is asking us to do our part,” Baust said. 



Watershed receives acid mine drainage abatement treatment

By Rosetta Fackler, Division of Water, and Mark Carew, Department for Natural Resources

Two state agencies—the Kentucky Division of Water and the Division of Abandoned Mine Lands—are working together in Hopkins County to save a watershed that once seemed hopelessly damaged by acid drainage from long-ago coal mining.

Approximately 2,400 acres of the ironically named Pleasant Run Watershed is “pre-law” mined land—meaning that mines in the area ceased operation before Congress enacted a landmark law to protect public health and the environment—the Surface Mining Control and Reclamation Act of 1977.

Up to then, there wasn’t anything pleasant about Pleasant Run. Thirty percent of the watershed has been disturbed by mining, most of which occurred between 1920 and 1958. Huge refuse piles, abandoned machinery, abandoned highwalls and structures, open shafts and inadequate vegetation are visible in the watershed. With every rainfall or snowmelt, large amounts of sediment from the refuse piles are carried as runoff into nearby streams. The result is streams that have very low pH (i.e., are acidic) and are not able to support aquatic life.

Pleasant Run is a classic example of

TOP:
Limestone dosing in an impaired tributary of Rock Creek.

RIGHT:
Acid mine drainage in the headwaters of Pleasant Run.
Photos by Ben Enzweiler



impairment caused by acid mine drainage, which typically includes concentrated sulfuric acid and may contain high concentrations of metals, especially iron, manganese and aluminum. The two agencies are working together on projects in the Pleasant Run Watershed using EPA funding under Section 319(h) of the Clean Water Act and Abandoned Mine Land funds, which are derived from a fee on current coal production. From 1980 to 2005, 400 acres of pre-law mine sites in the Pleasant Run Watershed were reclaimed at a cost of \$4.1 million. In 2006, an additional 60 acres are being reclaimed, including 13 acres of toxic coal-processing refuse in Nortonville and 47 acres of

reclamation in the headwaters of Pleasant Run.

The estimated cost to reclaim the remaining acreage and treat the acid mine drainage discharges in the Pleasant Run Watershed is \$20.8 million.

Bringing aquatic life back to Pleasant Run was proving to be a daunting task with limited funding dictating the rate of reclamation in the watershed.

But in 2000, in the lower Rock Creek Watershed in McCreary County, Kentucky adopted a process known as limestone dosing. Limestone fines, or small sand-sized pieces of limestone, are placed in the upper reaches of the impaired watershed. As water rushes down the stream it picks up and carries the limestone to the far reaches of the watershed. The fines continually turn and interact with the acid-forming refuse that had previously washed downstream.

The result was dramatically lower acidity and a resurgence of aquatic life in

the lower Rock Creek Watershed.

This year, the Pleasant Run project is testing the limestone dosing technique on a low-gradient stream in the western Kentucky coal field. If the practice proves successful, it may mean hope for restoring aquatic life to the more than 200 miles of low-pH-impaired streams in Kentucky.

“Limestone dosing is not a cure for acid-mine drainage-impaired streams,” said Mark Meade, Abandoned Mine Lands agronomist, “but it may stop the bleeding until adequate funding can be found to perform the necessary reclamation in a watershed to cure the impairment.”



“What good is a creek if you can’t wade or fish in it?” That was the question Winchester Mayor Dodd Dixon and his four sons asked after getting information from the samples they collected for the Licking River Watershed Watch.

They found that Strodes Creek and other creeks that drain into it in Clark County are polluted with bacteria, sediment and other things that make it unsafe for human contact. They also learned that the pollution is causing problems for plants and animals that naturally occur in streams. Armed with that information, Dixon assembled a group of citizens, city of Winchester staff and representatives of various agencies to form the Strodes Creek Conservancy. He then contacted Pamla



What good is a creek?

**By Lajuanda Haight-Maybriar
Division of Water**

Wood, former Licking River Basin coordinator, to ask for assistance in applying for a 319(h) nonpoint source grant to address problems in the creek.

The conservancy was awarded a \$680,000 grant in 2004, and its project will continue until 2010. The city of Winchester and other conservancy partners will provide \$460,000 in matching funds to complete the project.

With the grant funding, the conservancy has hired a coordinator to manage the project and is conducting a number of activities that will be of benefit to

homeowners and landowners while improving the water quality conditions in the Strodes Creek watershed.

These activities include cleaning out approximately 120 septic systems (a major source of fecal coliform bacteria) with minor repairs on several systems, and the installation of three miles of fencing along creeks in the watershed to keep out livestock. In addition, the conservancy is providing alternative water supplies for livestock.

Sixty acres of streamside riparian land that was once pastureland along Strodes Creek and one of its tributaries has been purchased and will be permanently

protected from any activities that would cause pollution to enter the creeks.

Strodes Creek receives runoff from approximately half of Clark County. It is part of the Licking River Basin and is a headwaters stream for the South Fork Licking River. The conservancy is receiving assistance from the Licking River Watershed Watch volunteer organization to sample Strodes Creek and streams that flow into it.

Sampling will be conducted before and after the project to gauge the extent to which pollution has been abated through best management practices adopted by landowners in the watershed. The sampling information will be used by the Kentucky Division of Water in calculating the amount of pollution the stream can safely accommodate.

For further information about the Strodes Creek Conservancy or its project, contact Shanda Cecil, conservancy director, at (859) 745-4042 or the Licking River Basin Coordinator Lajuanda Haight-Maybriar at (502) 564-3410. ❖



These photos show typical erosion caused by cattle that have been allowed access to the stream. Photos by the Division of Water

Awards

Conservation districts hold annual meeting, recognize

By Martin Bess
Division of Conservation

The Kentucky Association of Conservation Districts (KACD) recently held its 63rd annual state convention. The assembly brought together supervisors from across the state to discuss topics such as the 2007 Farm Bill, state cost share, conservation district operations and various conservation success stories.

The annual conference keeps attendees up to date on environmental issues, federal and state programs and new technologies available to deal with the future of conservation.

In addition, the convention emphasizes the importance of conservation and environmental efforts by recognizing individuals that go above and beyond the call of preserving the state's natural resources. It also honors producers who take the initiative to implement sound, innovative and cost-effective conservation

techniques and best management practices, while demonstrating and educating other members of the community about the problems and solutions associated with soil and water conservation.

The following individuals were recognized this year:

- State Rep. Adrian Arnold, who for years sponsored legislation for protection and stewardship of agricultural land, received the 2006 Conservation Person of the Year Award.

- Susan C. Bush, commissioner of the Kentucky Department for Natural Resources, was presented with the 2006 Distinguished Service Award for her strong support of conservation districts, which has included advocacy of their programs with the General Assembly and Kentucky's congressional delegation.

- Kathy Ponsoll, who teaches third and fourth grades at Woodlawn Elementary School in Boyle County, was named Elementary Teacher of the Year.

Continued to next page



LEFT: Department for Natural Resources Commissioner Susan C. Bush was presented the Distinguished Service Award for supporting Kentucky's conservation districts and their various programs.

LOWER LEFT: Rep. Adrian Arnold (left) was recognized by the conservation districts for championing legislation to protect the state's natural resources.

All awards were presented by Kevin Jeffries, president of the Kentucky Association of Conservation Districts from Oldham County. Photos provided by the Division of Conservation



Mark your calendar

This year's Governor's Conference on the Environment will include some energizing changes.

Day 1 will feature an evening reception followed by an awards dinner with a keynote speaker. A members-only event for the KY EXCEL program will precede the conference during the afternoon of Day 1.

Day 2 will include sessions focusing on "Environmental Leadership—Past, Present and Future."

WHEN: November 29-30

WHERE: Hyatt Regency, Lexington, Ky.

Additional information will be available soon by visiting <http://www.eppc.ky.gov/events/govconference/>

awards recipients

- Jeff Deener, a Taylor County farmer whose family has been practicing good soil and water management for more than a century, received the Outstanding Conservation Cooperator Award. Zack Saufley, owner of Church's Grove Farm in Franklin County, was the state's runner-up.

- Woodford County Conservation District won the Outstanding Conservation District Environmental Education Award. Its most important and far-reaching educational activity is an annual farm tour, which has been held annually for more than 40 years.

- Todd County Conservation District and Fleming County Conservation District received the Outstanding Conservation Districts Awards for the western and eastern regions, respectively.

- Marion County Conservation District and the Division of Forestry's south central district office received the Forestry Award.

- Pendleton County Conservation District received the Soil Stewardship Award.

- Shannon Wade and Shelley Wade of Harrison County received the KACD Auxiliary Natural Resource Scholarship.

- Brittany Gusler of Larue County received the KACD Auxiliary George Crafton Scholarship.

- DuPont Manual High School, Jefferson County, won the Kentucky Envirothon.



Jefferson County team travels to Canada

By Kelly Shouse
Division of Conservation

Despite rooms with no air conditioning, a Norovirus outbreak and hot cross-country running, the duPont Manual High School Envirothon team braved a week at the University of Manitoba in Canada to compete in one of the toughest environmental competitions of its kind. Winning the Kentucky Envirothon placed the five-member team among other top state competitors at the Canon Envirothon competition earlier this summer. Fifty-two teams from Canada, the United States and U.S. territories competed for scholarship money and other prizes donated by Canon USA and other sponsors.

The five team members included Boris Yelin, Jenny Feng, Jocelyn Yuen, Li Zheng, and Sharon Li. Their team coach, Cheryl Bersaglia, a program coordinator with the Jefferson County Conservation District, spent months preparing the teens in the subjects of forestry, water quality, soils and wildlife. The competition consisted of hands-on and applied knowledge of environmental science concepts in each category. The team was allowed only 10 minutes at each of the 25 competition stations along a trail that stretched nearly six miles.

The Louisville team was sequestered for 10 hours in a room to prepare a 20-minute presentation in response to a scenario on "Water Quality in a Changing Climate," which was to be presented before several judges the next day. The team scored well for their first effort. Veterans of the competition claimed it was the toughest competition in the Envirothon's history. Virginia took first place, followed by Pennsylvania.

It wasn't all work and no play. The teens traveled around Canada touring museums and local attractions, including the headquarters for Ducks Unlimited and a Winnipeg Goldeyes baseball game. They also spent time with students from all over the country.

"The kids had a blast," said Bersaglia. "It was an experience they will remember for the rest of their lives!" To learn more about the Canon Envirothon competition visit its Web site at www.envirothon.org.



Mark your calendar for Commonwealth Cleanup Week 2007

The 9th annual Commonwealth Cleanup Week, including cleanup activities and a poster contest, will be March 25-31, 2007.

Poster contest rules and additional information are available online at the Division of Waste Management's Web site—www.waste.ky.gov—or by calling (502) 564-6716. Entries must be submitted to a county extension service agent by Friday, Feb. 9, 2007.

The 1998 Kentucky General Assembly designated the fourth week in March as an opportunity for Kentuckians to participate in activities that highlight the natural beauty of their communities.

Volunteers clean up Kentucky River

By Cindy Schafer
Office of Communications
and Public Outreach

If people realized that the water they drink comes from the same river where they throw their trash, chances are they would stop polluting the river.

The Kentucky River supplies about 800,000 people with drinking water.

This year, approximately 200 volunteers lined the banks of the Kentucky River to clean up trash along 47 miles of shoreline.

Armed with gloves and garbage bags, volunteers picked up bottles, cans, tires and appliances.

In an interview with the Richmond Register, Madison County Solid Waste Coordinator Bob Rasmusson stated, "These items are very predictable."

As the organizer of the event along the Boonesborough Beach area in Madison and Clark counties, Rasmusson said that on the shoreline of the state park



Garbage picked up from the Kentucky River cleanup event. Photo provided by Bob Rasmusson

area you won't find as much as a cigarette butt.

"I think we've picked this area clean from here to Clays Ferry," he said.

There were a lot of families this year involved in the cleanup.

"It was a family affair," said Rasmusson. "You have to start early teaching children about the proper disposal of waste."

The cleanup was a success, and everyone's efforts were appreciated.



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Environmental and Public Protection Cabinet

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