

# — PA — Environment Digest

*An Update on  
Environmental  
Issues in  
Pennsylvania*

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Edited By David E. Hess, Holston & Crisci

May 15, 2006

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## More Than 160 Attend West Branch Susquehanna River Symposium

The third major watershed conference this year attracted over 160 people interested in learning more about how they can protect and restore the West Branch of the Susquehanna River.

[Over 450 people](#) attended the Coldwater Conference and the Schuylkill River Watershed Congress earlier this year.

The Symposium featured presentations on cold stream restoration, lessons learned from over 10 years of working to treat mine acid drainage and restore strip mines in the Slippery Rock Watershed, techniques for treating abandoned mine discharges, an overview of work completed and planned in the Beech Creek Watershed and more technical sessions on water quality assessments, aquatic organisms and benthic communities.

Featured speakers Paul Swartz, Executive Director of the [Susquehanna River Basin Commission](#) and John Dawes from the [Western Pennsylvania Watershed Program](#) gave the group several challenges.

Paul Swartz challenged the group to make the most of all the “natural resources” in the West Branch by developing even more partnerships between state, local and federal officials, colleges and universities, medical facilities, watershed groups, state and federal agencies and county conservation districts to tackle the water quality problems in the West Branch.

The challenges facing the West Branch are major, said Swartz, noting that one-third of all the water quality impaired stream miles in the Susquehanna Watershed are in this area which makes up 25 percent of the stream miles.

But Swartz read off a list of local projects that in the last year have made a significant difference in water quality and reviewed plans SRBC has to treat and redirect the [Barnes and Tucker mine discharge](#).



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Susquehanna River

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The newly formed West Branch Coalition and the Project Wilds initiative by the state have been successful, he said, in focusing attention on the West Branch, but more effort and partners are needed.

SRBC and other agencies will be spending the next year developing a West Branch Remediation Strategy that will evaluate and prioritize the abandoned mine lands and discharges to develop an action plan for dealing with the most serious causes of water quality impairment in the watershed.

“My dream for the West Branch is one full of promise, and the message I would like to leave you today is one of hope for its future,” said Swartz. “The restoration efforts in which you are involved today will provide tangible benefits by improving the quality of life and economic viability of the region.”

John Dawes provided an update on [efforts to reauthorize the fee](#) supporting the federal Abandoned Mine Reclamation Fund which helps pay for state and local mine reclamation and mine drainage treatment projects and is now the largest source of funding for mine reclamation efforts in Pennsylvania.

Pennsylvania faces a daunting abandoned mine problem—184,000 acres of abandoned mines, 4,000 miles of impaired streams that will cost at least \$5 billion to cleanup. In addition, 25 to 30 people die every year in accidents related to abandoned mines and quarries, Dawes noted.

Dawes said the federal fee on every ton of coal mined that finances the Fund has been extended three times since 2004 and will likely be extended again when it is due to run out in June.

The efforts to save the fund got new momentum, Dawes said, with the introduction of [S. 2616](#) by Pennsylvania U.S. Senators Rick Santorum and Arlen Specter in April. The bill is supported by the [coalition of more than 200 environmental and conservation groups](#) in the state.

The Santorum/Specter bill would extend the fee for another 15 years and provide more federal funding for Pennsylvania’s mine reclamation efforts-- some \$926 million over the life of the bill. It would also increase the so-called 10 percent set aside to 30 percent to address many of the abandoned mine problems that affect water quality, rather than pose a health or safety hazard.

“The beauty of the West Branch is priceless,” said Dawes. “But there’s a price tag on restoring its water quality. Our message to members of Congress on reauthorizing the fee is simple – Don’t come home without it.”

He urged every group in the West Branch to contact their member of Congress to support S. 2616.

Scott Roberts, DEP Deputy Secretary for Mineral Resources, announced that DEP and DCNR would be providing an \$81,000 grant to Trout Unlimited to help further document the abandoned mine problems in the West Branch and come up with cost-effective solutions.

“This work funded by this grant will form a foundation of water quality data,” Roberts said. “We will then evaluate different scenarios to tell us where to invest our cleanup dollars so that we get the greatest water quality improvements and the biggest bang for our buck.”

“We applaud Gov. Rendell for his vision and leadership in support of the cleanup of the West Branch,” said Amy Wolfe, director of [Abandoned Mine Programs for Trout](#)

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[Unlimited](#). “This grant will provide a major boost to the comprehensive restoration effort. We look forward to working with DEP in its leadership role, as well as DCNR, the Fish and Boat Commission and many other partners to improve water quality and ultimately recover hundreds of miles of high quality trout streams.”

Roberts said DEP has created the [West Branch Susquehanna River Task Force](#) to advise DEP on overall cleanup efforts. The task force includes representatives of DEP, DCNR, the Department of Community and Economic Development, the Fish and Boat and Game commissions, Trout Unlimited, the Susquehanna River Basin Commission, [Western Pennsylvania Conservancy](#), [Western](#) and [Eastern](#) Pennsylvania Coalitions for Abandoned Mine Reclamation, Western Pennsylvania Watershed Program and the [Pennsylvania Environmental Council](#).

The Symposium was organized through the efforts and sponsorships of Trout Unlimited, the Fish and Boat Commission, departments of Environmental Protection and Conservation and Natural Resources, the Western Pennsylvania Watershed Program and [Hedin Environmental](#).

For more information or to join the West Branch Coalition, download the [West Branch Task Force brochure](#), or contact Amy Wolfe, Trout Unlimited, at 570-726-3118 or send email to: [awolfe@tu.org](mailto:awolfe@tu.org).

Stay tuned for more opportunities to network with people interested in restoring and protecting their watersheds as the Eastern and Western Pennsylvania Coalitions for Abandoned Mine Reclamation prepare for their fall get-togethers and the Ohio River Watershed Celebration gets underway

**Links:** [West Branch Susquehanna Coalition Announced](#)  
[State of the West Branch Report 2005](#)  
[Heartland Coalition Works to Heal Middle/Upper Susquehanna Watershed](#)  
[Mine Water Could Help Provide Make Up Water in Susquehanna Basin](#)  
[Susquehanna Greenway Partnership](#)  
[West Branch Water Trail](#)  
[Trout Unlimited Cleanups Featured in WPSU Documentary](#)

### Session Schedule

The Senate returns to session on May 22 and the House returns on June 5

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- Game Commission Provides Wildlife Workshops for Teachers
- Local High School Students Will Compete in 2006 PA Envirothon May 22-23

### See & Hear

- Learn How to Integrate Wetlands into Watershed Protection in May 17 Webcast

### Feature

- Part I – Smart Growth Opportunities In PA - Small Steps Toward Smart Growth in Southwestern PA, *by Jonathan R. Farrell*

Go To the Watershed Awareness Month Events Section

[Go To: PA Environment Digest Calendar Page](#)

## On the Hill

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### On the Senate, House Agenda/Bills Moving

The Senate and House were not in session this week, but Gov. Rendell took action on several bills. Here's the rundown...

### Calendars

The House will start with these bills of interest on its June 5 Calendar-- [House Bill 1588](#) providing for the fluoridation of public water; and [House Bill 2067](#) setting limits on state spending through a constitutional amendment, and [Senate Bill 868](#) increasing the forest land in-lieu of tax payment.

### Committees

None. It's Primary Election Day May 16

## Senate/House Bills Moving

The Senate and House were both in session this week and as a result bills and resolutions were flying around. Here's the rundown.

### On the Governor's Desk

**Downtown Relocation Law:** [House Bill 218](#) (Reed-D-Indiana) which requires the Commonwealth to look at locating state offices in downtown areas was signed into law by Gov. Rendell.

**Community Facility Grants/Film Credits:** [House Bill 983](#) (T.Stevenson-R-Allegheny) revising procedures for Community Facilities Grants and making changes to the film production tax credit was signed into law by the Governor.

**Farmland Preservation:** [Senate Bill 723](#) (Wenger-R-Lancaster) providing for definitions and legislative report under the Agricultural Area Security law is with the Governor for his action.

## In Other News

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### Water Association Recognizes Rep. Carole Rubley with James McGirr Kelly Award



Rep. Carole Rubley (R-Chester) was presented this week with the James McGirr Kelly Award for Excellence from the Pennsylvania Chapter of the National Association of Water Companies (NAWC-PA) at the organization's annual meeting and awards luncheon in Harrisburg.

"It gives me great pleasure to present Carole Rubley with the Chapter's most prestigious award," said NAWC-PA Chairman Jeff Hines, vice president – engineering, The York Water Company. "As a member of the Pennsylvania Infrastructure Investment Authority (PENNVEST) Board, Representative Rubley has been very active in advancing the availability of safe and reliable drinking water in the Commonwealth and has played a leadership role in providing financial incentives for the repair and replacement of aging water and wastewater infrastructure."

"Rep. Rubley was also instrumental in making water and wastewater infrastructure funding part of Gov. Ed Rendell's economic stimulus package as a member of the House Consumer Affairs and Environmental Resources & Energy Committees," Hines said. "She subsequently played a key role in insisting that an additional \$100 million in unused bond authority, under the Small Water Systems Assistance Act of 1992, became available for existing water and wastewater infrastructure projects (Act 218 of 2004)."

"After September 11, 2001, Rep. Rubley recognized the need to help deter potential terrorist attacks at crucial facilities like water and wastewater treatment plants through the sponsorship of Act 51 of 2005, which authorizes PENNVEST to lend monies it receives

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from Federal and State sources to public and private water and wastewater systems for security-related infrastructure improvements,” said Hines.

In accepting the award for 2005, Rep. Rubley was quick to point out that the award is the result of hard work and many contributions by her colleagues in the General Assembly, the Department of Environmental Protection, the Public Utility Commission and PENNVEST.

Rep. Rubley has traditionally sponsored the House Resolution designating the week of May 7 through 13, 2006, as “Drinking Water Week in Pennsylvania” to heighten awareness of drinking water treatment, monitoring, distribution and related costs. [House Resolution 679](#) urges all residents of this Commonwealth to protect our watersheds, conserve our precious drinking water supply and preserve its superior quality.

Carole Rubley was first elected to represent Chester County’s 157th Legislative District in the House of Representatives in 1992 and is now serving her seventh term. The district includes parts of Chester and Montgomery counties.

With expertise in environmental issues and years of local government service, Rep. Rubley’s background prepared her for the challenge of serving on the Governor’s 21st Century Environment Commission. Some of the commission’s conclusions were included in the Gov. Ridge’s Growing Greener program.

She was appointed by the House Majority Leader to the Green Ribbon Commission, which conducted an in-depth study of the diverse environmental challenges facing Pennsylvania and made recommendations that resulted in the passage of Governor Rendell’s Growing Greener II initiative to improve Pennsylvania’s environmental future.

Before her election to the House, Carole was a member of the Tredyffrin Township Board of Supervisors, the Eastern Chester County Regional Planning Commission and the Tredyffrin Recycling Committee. She served as the Chester County Department of Health’s solid waste coordinator and was employed as a project manager for an environmental services firm.

The award was named for the late James McGirr Kelly, a former Senior US District Court Judge for the Eastern District of Pennsylvania, Public Utility Commission member and the first recipient of the award in 1983, and is presented each year to the resident of Pennsylvania who most exemplified dedication to promoting the availability of safe and reliable drinking water in the Commonwealth.

The recipient of the award is chosen by the Board of directors of the Pennsylvania Chapter of the National Association of Water Companies. Other award recipients have included educators, engineers, three governors, and Pennsylvania environmental pioneers Dr. Maurice K. Goddard and Clifford L. Jones.

### **EPA Recognizes PA Schools for Protecting Schuylkill River**

The U.S. Environmental Protection Agency recognized seven schools in the Schuylkill River Watershed this week for developing environmental and educational projects that help to protect sources of drinking water.

Each school was presented a [Schuylkill Action Network](#) source water protection award in celebration of National Drinking Water Week.

Schools receiving awards included: Albright College, Reading; Boyertown High School, Boyertown; Germantown Friends Lower School, Philadelphia; Philadelphia



University, Landscape Architecture Program, Philadelphia; Spring Ford Area School District, Collegeville; Tamaqua Area High School, Tamaqua; and the Upper Dublin Environmental Studies Class, Maple Glenn.

“These schools have made valuable contributions to protect the Schuylkill River by incorporating environmentally sensitive property management practices and educational programs into their daily operations. This river is an important resource that provides drinking water for 1.5 million people,” said Donald S. Welsh, regional administrator for EPA’s mid-Atlantic region.

The awards were presented on behalf of the Schuylkill Action Network, which was formed in 2003 to create a team approach to cleaning up and protecting the Schuylkill River and its tributaries. Members include EPA, Department of Environmental Protection, Philadelphia Water Department, Delaware River Basin Commission; conservation districts, local, state and federal agencies, watershed organizations and other non-governmental organizations.

The award recipients span the entire watershed from Tamaqua High School (Schuylkill County) located in the headwaters to Germantown Friends School, located in the lower portion of the watershed (Philadelphia County). All the schools implemented source water protection programs such as adopting a local stream, designing educational wetland areas, planting native species on stream banks to prevent erosion, designing stormwater retention basins, and teaching students and members of the community about protecting water quality.

Source water is untreated water from streams, rivers, lakes, or underground aquifers that is used to supply private and public drinking water. The Schuylkill River and its tributaries are an important source of drinking water and fish habitat.

For more information, visit the [Schuylkill Action Network website](#).

### **Lafayette College Students Win EPA’s People, Prosperity and Planet Award**

The U.S. Environmental Protection Agency announced the winners of its [People, Prosperity and the Planet \(P3\) awards](#) this week that included a project by students from Lafayette College.

This national competition, sponsored by EPA's Office of Research and Development, enables college students to research, develop and design scientific, technical, and policy solutions to sustainability challenges. Sustainable solutions are environmentally friendly, efficiently use natural resources and are economically competitive.

The P3 award includes funding up to \$75,000 that gives the students an opportunity to further develop their designs and move them to the marketplace.

Winners of this year's awards included Lafayette College in Easton, Pa. for its Sustainable Water Systems in Honduras - a simple method to remove inorganic arsenic from groundwater sources;

The P3 Award competition was held at EPA's first National Sustainable Design Expo on the National Mall in Washington, D.C. The students exhibited their design projects while companies, non-profit organizations and government agencies exhibited their commercially successful sustainable technologies. Support for the competition

includes more than 45 partners in the federal government, industry and scientific and professional societies.

[A list and description of all winners is available online.](#)

### **Presque Isle Bay Event To Raise Funds for Youth Environmental Program**



*Presque Isle Bay, Erie.*

*Photo: Sea Grant Program - PA*

On May 20, students, educators and hundreds of area bicyclists will participate in the 4th annual [Bike Around the Bay](#) in Erie to raise funds for the non-profit organization Lake Erie-Allegheny [Earth Force](#) located in Erie and Pittsburgh.

Bicyclists will have the option to bike 10, 30 or 50 mile routes and an opportunity to learn more about the Lake Erie Watershed at

various rest stops and enjoy beautiful views of the lake and bay.....areas where Earth Force students work each year to protect and

positively impact the quality of water in our streams, bay and lake

Pat Lupo, OSB, Director of Earth Force Programs, said “using our most precious resource, water, as a backdrop for the bike tour, will remind people that it is up to each and everyone of us to protect our waterways.”

Earth Force is a process that challenges the students to solve real world problems by exploring and implementing policies and policy-making processes which will create lasting changes in their community.

Earth Force directly benefits the community twofold: youth in schools and after-school programs are empowered to become active citizens and environmental concerns are addressed with sustainable solutions.

The Bike Around the Bay event goal is to raise funds to provide Erie area youth the opportunity, resources and innovative tools to engage them as community leaders and environmental problem solvers in keeping Erie a healthy community.

For more information, visit the [Lake Erie-Allegheny Earth Force webpage](#).

### **Innovative Dairy Program Improves Impacts on Water Quality**

Dairy farmers can reduce their impact on water quality, while maintaining or increasing profitability, through an innovative project called [Precision Feeding](#), conducted by the Chesapeake Bay Foundation, the University of Pennsylvania School of Veterinary Medicine, Penn State University, and the Department of Agriculture.

These project partners are helping Pennsylvania dairy producers to adjust feed rations, so that cows are fed nitrogen and phosphorus according to their needs. As a result, fewer nutrients will end up in the manure.

Cows’ nutritional requirements fluctuate over time due to age, size, pregnancy and milk production. In addition, hay, silage and other feeds have inconsistent nutrient levels, due to diversity in soil type, weather, time of harvest, and many other factors.



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The Precision Feeding project will analyze the nitrogen and phosphorus levels in feeds on the farm, as well as in the milk and manure, and work with the farms' nutritionists to adjust the diets to meet the cows' needs more precisely.

This is expected to lead to a 30 to 40 fold reduction in the nitrogen and phosphorus content of the farm's manure. The reductions will greatly reduce the farmers' manure management challenges and lead to lower nutrient contributions to local streams and, ultimately, the Chesapeake Bay.

The Chesapeake Bay Commission named precision feeding as one of the most efficient strategies for reducing nutrient loads in its report, *Cost-Effective Strategies for the Bay: 6 Smart Investments for Nutrient and Sediment Reduction*.

Precision feeding is already widespread in swine and poultry production, where feed inputs are provided by scientific analysis. CBF foresees the dairy initiative leading to adoption by about 4,000 Pennsylvania dairy farms, with reductions of approximately 24 million pounds nitrogen pollution and 9.5 million pounds of phosphorus pollution.

CBF staff will be visiting with some of the farmers in the program to follow the progress of the study. [Check the CBF-PA website](#) for updates, photos and interviews with farmers in the coming months.

### **Mingo Creek Well-Head Protection Workshop May 22**

The Friends of Mingo Creek and other partners in Montgomery County will hold a special workshop on well-head protection May 22 in the [Upper Providence Township](#) Meeting Hall from 7:00 to 8:30 p.m.

The workshop will feature presentations on how property owners can protect local and regional water resources.

For more information, contact Alice Lang, 610-792-1017 or send email to: [MingoWatershed@aol.com](mailto:MingoWatershed@aol.com).

### **Next Rachel Carson Forum on Dam Removal and River Restoration**

The next Rachel Carson Forum on the Future of the Environment features a program on dam restoration problems and opportunities on May 18 at noon in the second floor auditorium of the Rachel Carson State Office Building in Harrisburg.

The speaker will be R. Scott Carney, Chief of the newly established Division of Habitat Management with the Pennsylvania Fish and Boat Commission. Carney is one of the leaders of modern dam removal in Pennsylvania, having created the Commission's highly successful Consultation and Grant program for Fish Passage and Habitat Restoration 10 years ago.

He has raised more than \$6 million to date and helped to remove more than 100 dams statewide, and has partnered with a large number of federal, state, nonprofit, municipal and private-industry partners.

Pennsylvania currently leads the nation in the removal of unwanted dams, with more than 120 dams removed over the past decade. With an estimated 5,000 dams still in the state, there is still plenty to do.

The presentation looks at the issues surrounding dam removal, particularly ecological and economic considerations. Though still controversial, dam removal has

gained a good measure of acceptance in the past 10 years as an efficient and effective means of stream restoration.

Dam removal can also be a catalyst for developing long-term partnerships, for citizen monitoring and restoration efforts, and for larger ecosystem restoration projects. Learn the issues behind dam removal, the biological impacts, and the partnership opportunities involved with removal projects.

The program will also address habitat restoration efforts being developed by the Pennsylvania Fish and Boat Commission and partnership opportunities open to DEP, DCNR and other groups.

Questions about this series should be directed to Don Brown, Pennsylvania Consortium for Interdisciplinary Environmental Policy, at [brownd@state.pa.us](mailto:brownd@state.pa.us).

### **River Connections Newsletter Now Available Online**

The Susquehanna Greenways Partnership's spring 2006 [River Connections newsletter](#) is available online.

The newsletter features articles on Trout Unlimited's restoration efforts on the West Branch, the PA Wilds Initiative, a new riverfront plan in Sunbury, Expedition Susquehanna and resources and contacts for more information on the Susquehanna Greenways Partnership.

The vision of the Susquehanna Greenway is to develop an interconnected corridor linking cities, towns, and suburbs with natural areas, working forests and countryside over nearly 500 miles along the Susquehanna River in Pennsylvania.

For more information, visit the [Susquehanna Greenway Partnership website](#).

### **New Group To Study Proposal to Mandate BioFuels Use in PA**

Gov. Rendell this week announced the creation of a stakeholders group to develop a legislative initiative that would mandate the use of biofuels in gas and diesel vehicles and in heating oil for homes.

<http://www.depweb.state.pa.us/news/cwp/view.asp?a=3&q=505298>

Gov. Rendell charged the departments of Environmental Protection and Agriculture with forming a stakeholder group with the General Assembly, trucking associations, refiners and fuel retailers, farming organizations, conservation groups and others to draft legislation by July 31.

The Governor unveiled his "PennSecurity Fuels Initiative" while inaugurating the first publicly-available E85 ethanol blend fueling station in Pennsylvania. Worley & Oetz's WoGo service station in Lititz, Lancaster County, is the first publicly available refueling station in the Northeast to dispense fuel that is 85 percent ethanol and 15 percent gasoline.

Among the key elements of the Governor's PennSecurity Fuels Initiative:

- Mandate 17 percent of transportation fuels sold at retail in Pennsylvania contain eligible fuels by 2018. Eligible fuels include ethanol, biodiesel, coal-derived sources, methane gas derived from landfills or coal-mine methane used in transportation, and biodiesel used as a replacement for petroleum engine lubricants. Substitution of biofuel for petroleum-based home-heating products also will receive credit;

- Replace 900 million gallons of the state's transportation fuels over the next decade with alternative sources, such as ethanol and biodiesel, or with fuels derived from coal liquefaction processes equipped with carbon offsets. The 900 million gallons represents the forecasted amount of fuels that will be imported from the Persian Gulf to Pennsylvania 10 years from now;
- \$30 million from the state's Alternative Fuels Incentive Grant program would be dedicated over the next five years to build re-fueling and production infrastructure to support the standard for alternative fuel distribution to consumers;
- Create incentives that open new markets to Pennsylvania farmers who grow the feedstock to produce ethanol and biodiesel, and encourage clean technology that puts to use the state's vast coal reserves to reduce foreign fuel dependency, create new jobs and economic growth, improve the environment and build a diversified energy base. Extra credits will be provided for fuels derived from Pennsylvania feedstock; and
- Provide safeguards against price increases by allowing alterations or delays in the compliance schedule if prices of eligible alternative fuels rise above conventional fuels by a certain level for a prolonged period. Additionally, a credit trading system will be set up to further enhance the suite of compliance options.

"This initiative will do for transportation fuels what our Alternative Energy Portfolio Standard is doing for electricity production: restore Pennsylvania's environment by ensuring more fuel comes from clean, renewable resources and promote economic development by encouraging investments in advanced technologies," Gov. Rendell said.

Four other states – Hawaii, Minnesota, Montana and Washington – have implemented fuel standards. Other states are proposing similar transportation fuel portfolios.

**NewsClip:** [Governor Unveils PennSecurity Fuels Initiative](#)  
[PA Pumped Over Ethanol](#)  
[Rendell Wants Alternative Fuel in Each Gallon of Gas](#)  
[Brewing Biofuel Gains in Popularity in Pittsburgh Area](#)

### **New Landfill-Gas-to-Energy Project Dedicated in Lancaster County**



PPL, the Lancaster County Solid Waste Management Authority and Turkey Hill Dairy this week dedicated a new landfill-gas-to-energy project at the authority's Frey Farm and Creswell Landfills.

This project captures landfill methane and converts it to electricity and steam that will be sent to the boiler system at Turkey Hill Dairy. Two Caterpillar engines fueled by landfill gas will produce 3,200 kilowatts -- enough electricity to power about 4,000 homes. The electricity will be exported into the utility grid for use.

"PPL is pleased to partner with the Lancaster County Solid Waste Management Authority, Turkey Hill Dairy and the Commonwealth of Pennsylvania to be part of a green energy project that reduces methane, a major greenhouse gas," said Paul T. Champagne, president-PPL EnergyPlus. "We are excited to be part of an effort to bring renewable technology and associated projects to Pennsylvania."

The project was funded in part by a \$650,000 grant from the Pennsylvania Energy Deployment Authority.

Two boilers on the engine enclosures will make steam that will go to the boiler system at Turkey Hill Dairy. Enough steam will be provided to offset about 85 percent, or more than 225,000 gallons of diesel fuel, used annually in Turkey Hill's boilers. Turkey Hill uses the steam to clean its equipment.

Enough landfill gas will be used through the landfill authority project to save 400,000 barrels of oil, offset the use of 800 railcars of coal and provide greenhouse gas reduction benefits equal to planting 48,000 acres of forest.

All of the state's landfill-gas-to-energy projects reduce emissions equivalent to taking 47,027 cars off the road, offset the use of 1,202 railcars of coal, prevent the use of 570,332 barrels of oil and equal the beneficial effect of planting 72,448 acres of forest.

For more information, visit the [Landfill Gas Outreach Program webpage](#).

### **Good Compost Made Better Aim of Rodale Institute Project**

[The New Farm website](#) by [The Rodale Institute](#) teaches farmers practical steps to more effective and sustainable ways to convert agricultural waste from animals and crops into a resource that will build healthier soil with more balanced fertility.

The challenge is to keep nutrients such as nitrogen and phosphorus in compost for crop use and to prevent those nutrients from entering waterways, where they can damage aquatic ecosystems.

This goal is being realized through the addition of ingredients in the composting process recipe that more fully mimic natural soil-forming processes. Dissemination of this knowledge to agricultural operations, particularly in areas like Lancaster County, can have very positive effects on water quality and the health of the Chesapeake Bay.

Funded by a Growing Greener grant, The Rodale Institute has performed a detailed comparison of composting processes using a variety of recipes. The comparison included the nutrient content of the finished composts, nutrient losses in run-off, bacterial populations, crop response and textural qualities.

It has been shown that a standard mix of leaves and manure amended only with clay, calcium and humic acid can improve the composting process by reducing nitrogen losses by up to 90 percent and phosphorus losses by up to 75 percent.

The finished compost also displays lower pathogen counts and matures more quickly than compost recipes lacking similar amendments. Improved textural quality, aggregation, and odor reduction are added process benefits.

Despite these small but valuable additions to the compost recipe, the composting process has remained unchanged and is still the simplest method to recycle agricultural waste. The use of quality compost can significantly improve the organic matter content of soil over time whereas field applications of synthetic fertilizer or raw manure can only support competitive crop growth and lack this soil-enhancing feature.

Fields treated with compost displayed 4.5 times more nitrogen remaining in the soil after harvest than synthetically fertilized soils, and 1.5 times higher than fields fertilized with raw manure.

In addition to nutrient benefits for crops, organic matter in soil improves performance by retaining moisture during drought conditions and minimizing nutrient run-off in wet conditions.

For more information, visit [The New Farm website](#) with its farmer-to-farmer know-how on how to take advantage of new, environment friendly farming techniques.

### **Wilson College to Host Farm-Based Composting Workshop May 13**

The [Richard Alsina Fulton Center for Sustainable Living](#) at Wilson College, Chambersburg, Franklin County, is hosting a free farm-based composting workshop May 13, from 10 a.m. to 12 p.m., and an educators' workshop on biodiesel production, also on May 13 from, 1 p.m. to 4 p.m.

"Composting is a great way to reduce our contributions to landfills and to create a beneficial soil additive," said FCSL Program Director Matt Steiman, who will lead the program with DEP Solid Waste Program Specialist Patricia Olenick.

While the composting program will concentrate on large-scale composting, Steiman also plans to cover the basics of home composting, food-waste composting and vermiculture, which uses worms in the composting process.

The "How to Make Biodiesel Fuel" workshop for teachers will lead participants through a science class laboratory exercise and provide class handouts and a CD-ROM. Biodiesel is a clean-burning alternative fuel produced from vegetable oils.

For more information on either program, contact Steiman at 717-264-4141 or [msteiman@wilson.edu](mailto:msteiman@wilson.edu) or visit the [Richard Alsina Fulton Center for Sustainable Living website](#).

### **Dauphin County to Hold Electronics Recycling Event May 20**

Dauphin County is conducting its tenth semi-annual Community Recycling Day May 20, from 9 a.m. to 1 p.m. at Harrisburg Area Community College.

The event will be along Industrial Road at HACC's parking lot entrance W2.

Dauphin County's e-cycling event has been a tremendous success, collecting 366 tons of waste since it began in 2001.

Potentially dangerous heavy metals, including lead, mercury, silver, chromium, zinc and cadmium, are the reason electronic equipment needs to be disposed of properly, not just put out with other garbage. Computer monitors and televisions contain leaded glass, making them one of the largest sources of lead in our municipal waste stream. Other electronic equipment contains mercury, a neurotoxin linked with mental retardation in infants, and vision loss and high blood pressure in adults.

Compounding the risks posed by such heavy metals is the relatively short product life of many consumer electronic products. It is estimated that Americans will have disposed of more than 500 million obsolete computers by 2007.

Dauphin County's collection focuses on electronic wastes, such as computers, mobile phones, televisions, radios and the like. The electronics will be recycled by EnviroCycle Inc. of Hallstead, Susquehanna County. Other items will be accepted for reuse, including wearable clothing and miscellaneous household items.

There is no charge for the collection, except for tires. The charge is \$2 per passenger tire, and \$4.50 per truck tire.

Household hazardous wastes, such as pesticide or paint, will not be accepted, but Dauphin County residents can call toll-free 1-800-449-7587 for free curbside pickup.

For more information, call Dauphin County's recycling hotline at 717-780-6351.

### **Growing Greener II Supports Lehigh Valley Brownfield Redevelopment**

Gov. Rendell announced this week the state is investing \$2.3 million to support revitalization projects in Bethlehem and Easton that will restore underutilized buildings and bring new jobs and new housing opportunities for the Lehigh Valley.

The investment, made through the Redevelopment Assistance Capital Program and Growing Greener II funds, will restore the former Pomeroy's Department Store building in Easton to a mixed-use retail and housing complex in the heart of the downtown business district.

The property has been mostly vacant and poorly maintained since 1976. The RACP and Growing Greener II funds will be used to develop the 86,000-square-foot site to include 19,000 square feet of retail space on the first floor, 26 condominium style units on the second and third floors, a four-story annex tower, and a residential parking garage in the basement.

The state's investment will leverage an additional \$9.25 million in local funds and private equity to cover the cost of this \$11 million project.

In Bethlehem, Gov. Rendell announced a \$550,000 investment through the Growing Greener II program for redevelopment of the former Alphagraphics building on historic Main Street.

The three-story building was virtually destroyed by fire and is currently in a state of demolition. Ashley Development purchased the 120-year-old building in April 2005, and will rebuild all three floors incorporating historic details similar to the original structure. The facility will be leased and converted into a restaurant.

For more information on the RACP and Growing Greener II, visit [www.newpa.com](http://www.newpa.com) or call 1-866-GONEWPA (1-866-466-3972).

**NewsClip:** [PA Receives EPA Brownfield Grants](#)

### **PA Receives \$2.5 Million in Brownfields Funding for Communities**

The U.S. Environmental Protection Agency announced this week that Pennsylvania will receive \$2.5 million in brownfield assessment grants, more than any other state in this EPA Region.

"Brownfields reclamation is one of the great environmental success stories of the past decade. The grants announced today will help reclaim Pennsylvania properties that have been unused for years, and turn those sites into assets for the community, the environment, and the economy," said Donald S. Welsh, U.S. EPA regional administrator for the mid-Atlantic region.

The grants will fund assessments of sites that have potential for reuse, but are perceived to contain environmental pollution. The following recipients will conduct community-wide assessments for sites with hazardous substances or petroleum:

- The City of Philadelphia - \$200,000;
- Palmerton Borough, Carbon County - \$200,000;
- Allegheny County Redevelopment Authority - \$200,000;



## PA Environment Digest – Holston & Crisci

- West-to-West Coalition, 21 local governments in Western Pennsylvania's Monongahela River Valley - \$200,000;
- Redevelopment Authority of the County of Washington - \$400,000;
- Bucks County Redevelopment Authority - \$400,000; and
- Taylor Borough, Lackawanna County - \$350,000 - to assess the Taylor Colliery site.

In Pennsylvania, EPA has also awarded cleanup grants to:

- Washington County Authority - \$200,000 - for the Sherwood Towers property;
- Washington County Authority - \$150,000 - for the Maintenance Shops property; and
- Johnstown Redevelopment Authority - \$200,000 - for the Rosedale KOZ/Ore Yard site.

For more information, visit [EPA's Brownfields Grant webpage](#).

### DCNR to Resume Spraying Woodlands to Combat Gypsy Moth Damage

The Department of Conservation and Natural Resources will again begin spraying to control gypsy moths in at least 8 counties whose moth population have grown recently despite a virtual collapse in numbers of the woodland insect a few years ago.

Daily updates on spraying activities can be found on the [Forest Pest webpage](#).

Suppression efforts will be conducted over nearly 82,000 acres of private and public forestlands and state game lands in Pike, Lackawanna, Wayne, Luzerne, Monroe, Lycoming, Tioga, and Franklin counties. Spraying is scheduled to begin early this week in Franklin County.

DCNR opted not to undertake aerial spraying in 2003, 2004 and 2005 because of sharply declining gypsy moth populations, during which a naturally occurring fungus proved deadly to the insect that defoliates certain hardwoods.

Gypsy moth defoliation also has dropped sharply. During spring 2002, a total of 55,798 acres of Pennsylvania forestland were defoliated by the gypsy moth. That was a 76-percent reduction in defoliation from 2001's total of 237,559 acres. In 2000, almost 837,600 acres were defoliated.

Four helicopters and two fixed-wing aircraft will be used to complete this spring's aerial suppression project. Again all areas will be treated with the biological insecticide, *Bacillus thuringiensis* (Bt), comprised of naturally occurring *Bacillus* spores. In some areas, the bureau also will be applying using Gypchek, a naturally occurring virus specific to gypsy moth larvae.

The 2006 Cooperative Gypsy Moth Suppression Project is expected to last approximately five weeks.

Forestry bureau experts identify the gypsy moth as one of the most destructive forest pests in Pennsylvania. Feeding while in the larval, or caterpillar, stage, gypsy moth caterpillars hatch and begin feeding from mid- to late April in southern Pennsylvania, and in early- to mid-May in the northern part of the state. Oak, sugar maple, beech and aspen trees are affected the most by the forest pest.

When populations peak, the insects may strip trees of foliage, leaving them weakened and susceptible to disease, drought, and attack by other insects. A tree begins to suffer when 30 percent or more of its leaves are lost.

Forest insect spray programs are a cooperative effort among DCNR's Bureau of Forestry, county and municipal governments, and the U.S. Department of Agriculture

Forest Service's Forest Health Protection Unit. County and municipal governments share the cost of treating private residential and local government-owned lands for gypsy moth suppression.

The gypsy moth was introduced to North America in 1869 at Medford, Mass., where it was used in a silk-production experiment. The gypsy moth first reached Pennsylvania in Luzerne County in 1932, and since then has infested every county.

For more information, visit the [Forest Pest webpage](#).

### **New Green Delaware Water Gap Welcome Center to Help State Save Green**

With just a few weeks until the grand opening of the [Delaware Water Gap](#) Welcome Center, Department of General Services Secretary James P. Creedon hosted a tour of the facility this week to outline its energy-saving design features.

The new, state-of-the art Pennsylvania Welcome Center, off Interstate 80 in the Delaware Water Gap, will feature environmentally-friendly, green-design initiatives designed to save energy and cut operating costs, part of the Commonwealth's goal to reduce energy costs by 15 percent in 2007.

In December 2004, Gov. Rendell placed DGS in charge of an energy management and conservation campaign that requires long-term planning for reduced energy consumption by every executive-branch agency.

From geothermal heating and cooling to a roof planted with landscaped shrubs, the new Center will show off a variety of green building techniques.

The new facility replaces a welcome center that was built in 1956 and is one of the oldest visitor centers in the state. Construction began on the new building in September 2004.

The new building was built to adhere to Leadership in Energy and Environmental Design standards, or LEED.

LEED represents the U.S. Green Building Council's efforts to develop a standard that improves environmental and economic performance of commercial buildings, using established and/or advanced industry principles, practices, materials and standards.

The project was designed by Maria C. Romanach Architects of Philadelphia. PennDOT will be responsible for operating the new 12,721-square-foot building once it opens.

For more information, visit the [Delaware Water Gap website](#).

### **May Environmental Education Newsletter Now Available Online**

The [May EE Connections newsletter](#) published by the Pennsylvania Center for Environmental Education is now available online.

This month's issue features these items:

**PCEE News:** PCEE Graduate Students Attended Creek Connections Symposium; PCEE Participated in Earth Day at the Polk Center; PCEE Graduate Assistant to Present at the National Aviary;

## PA Environment Digest – Holston & Crisci

**General News:** Pittsburgh's Three Rivers named DCNR's 'Rivers of the Year'; Source Water Protection Grants Help Communities; New 'Smart Watershed Benchmarking Tool' Now Available; Pa Senate and House Set to Recognize May as Watershed Awareness Month; Web Site Educates the Public; Whole Foods/Pa Resources Council Partnership President Bush Presents Youth Environmental Award; EPA Publishes New Watershed Training Opportunities Booklet; NAAEE is looking for Input; May 11 is Endangered Species Day;

**K-12 News:** Penn State Science Workshops for Educators; KidScience at the Pittsburgh Zoo; 2006 Pennsylvania Envirothon; New Book: Designing a Communication Campaign: The 4-P Workshop; Education Atlas Online; New Aldo Leopold Poster;

**Higher Education:** PA Colleges, Universities Get Help to Reduce Greenhouse Gasses Pymatuning Laboratory of Ecology; Wild Resources Education Workshop;

**Professional Development:** Watershed Stewardship Guide Workshop; Information Sessions Set on Nutrient, Sediment Trading Benefits; Urban Watersheds Revitalization Conference Set for May 18-19; Funding Municipal Recreation and Parks Workshops Urban Sustainability Forum Series; Workshop on Riparian Buffers and Invasive Plants Green Building Workshop; Wilkes University Training Course; Online Environmental Science Courseware; and

**Grants/Awards:** Chesapeake Bay Trust Soliciting Proposals for Pioneer Grants; Educational Improvement Tax Credit Program; Project Earth Environmental Education Grants; Scholarships Available to Attend Wind Energy Conference; Coca-Cola Foundation Grants; 2006 Kodak American Greenways Awards.

To receive your own copy of [EE Connections](#) by email, fill in the online request form or send email to: [info@PCEE.org](mailto:info@PCEE.org). Visit the [Pennsylvania Center for Environmental Education website](#) for more on the resources available through the Center.

### Game Commission Provides Wildlife Workshops for Teachers

With summer just around the corner, the Pennsylvania Game Commission announced a series of upcoming wildlife education workshops for educators and Scout and youth group leaders.

The four programs, all of which are Act 48 approved for educators, are: WILD About Elk, WILD About Peregrine Falcons, WILD About the Susquehanna, WILD About Birds.

Theresa Alberici, Game Commission Wildlife Conservation Education specialist, facilitates and administers Project WILD, which is one of the most widely-used conservation and environmental education programs among educators of students from kindergarten through 12th grades.

These workshops are part of the series of Advanced WILD and PA Songbird workshops provided by the Game Commission. Following is a summary of each of the four programs.

**WILD About Elk:** On June 15-16, representatives from the Game Commission will hold a two-day "WILD about Elk" program designed to give teachers and other educators an opportunity to have an in-depth, hands-on experience with Pennsylvania's largest mammal. The event will be held in St. Marys and Benezette, Elk County, as well as DuBois, Clearfield County. Game Commission biologists, land managers, wildlife conservation officers and educators will offer an in-depth program featuring elk biology; history and the Game Commission's elk reintroduction program; current conservation programs; land management issues related to elk; and other management issues. Additionally, the course will include a field experience to view elk and participate in other hands-on activities, including a demonstration of how Game Commission biologists use radio-telemetry to track elk. The Rocky Mountain Elk Foundation (RMEF) is offering a stipend to participants to offset the costs of overnight lodging. Some meals will be provided. Participants also will receive a WILD About Elk book, background information, hands-on activities and state and local resource information materials to use in classrooms. To register, contact Theresa Alberici at [talberici@state.pa.us](mailto:talberici@state.pa.us) or at 717-783-4872.

**WILD About the Susquehanna:** On June 19, from 9 a.m. until 3:30 p.m., wildlife educators from the Game Commission, Dauphin County Parks and Recreation and the Pennsylvania Fish and Boat Commission will lead a canoe trip down the Susquehanna River. Participants will view the nesting sites of the state endangered great egret and black-crowned night-heron; search for signs of river otters; and examine the water quality of the river through chemical, physical and biological sampling. Space is limited, so make your reservation now. For registration, contact the Wildwood Lake Sanctuary at 717-221-0292. A \$15 fee is charged to help cover costs of the workshop.

**WILD About Peregrine Falcons:** On June 27, from 9 a.m. until 3:30 p.m., Dan Brauning, Game Commission Wildlife Diversity Section Supervisor, officials from the state Department of Environmental Protection (DEP) and wildlife educators from ZOOAmerica will conduct a workshop to explore the success of the Game Commission's peregrine falcon reintroduction program. Participants will learn about peregrine falcons, reasons why species become endangered and take time to observe the falcons in Harrisburg. This workshop, which is offered by the Game Commission in partnership with DEP and Hershey ZOOAmerica, will be held in Harrisburg. To register, contact Ann Devine at [adevine@state.pa.us](mailto:adevine@state.pa.us) or at 717-772-1644. Lunch will be provided, however, there is no fee for this workshop.

**WILD About Birds:** On July 6, from 9 a.m. until 3:30 p.m., at Wildwood Lake Sanctuary, Harrisburg, workshop participants will explore the world of birds, including: bird biology, nesting and mating behaviors; bird observation and identification; and an introduction to the Breeding Bird Atlas. The workshop also offers a chance for educators and students to become part of a current scientific research project. The workshop includes the PA Songbird curriculum and more. For those educators who already have PA Songbirds curriculum, this workshop will add to your bird background and information. For registration, contact Wildwood Lake Sanctuary at 717-221-0292. A \$10 fee is charged to help cover the costs of the workshop.

## Local High School Students Will Compete in 2006 PA Envirothon May 22-23



The 2006 [Pennsylvania Envirothon](#) will be held May 22 and 23 at the Penn State Mont Alto Campus in Franklin County.

The Envirothon is a competition that tests teams of high school students on their knowledge of soils/land use, forestry, aquatic ecology and wildlife. The teams compete at the county level and only one team from each county attends the statewide event.

Each team's knowledge is tested under the supervision of foresters, soil scientists, wildlife specialists and other natural resource professionals. Teamwork, problem solving and oral presentation skills are evaluated as each team offers a panel of judges an oral presentation containing recommendations for solving an environmental challenge presented to them.

The winner of the Pennsylvania Envirothon will represent the state at the national Canon Envirothon. Teams representing Pennsylvania have won 10 of 18 national Canon Envirothon events since 1988.

For more information, visit the [Pennsylvania Envirothon website](#).

## See & Hear

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### Learn How to Integrate Wetlands into Watershed Protection in May 17 Webcast



The EPA Watershed Academy will hold a live webcast on May 17 from 1:00 to 3:00 p.m. on Integrating Wetlands into Watershed Protection Plans.

Tom Schuler from the Center for Watershed Protection will focus on how wetlands located in rural, suburban and urban settings can be directly and indirectly impacted by land development.

Schuler will describe eight tools of watershed protection that can be adapted to strengthen wetland protection, conservation and restoration.

Previous webcasts on Opportunities for Citizen Involvement in the Clean Water Act, Sustainable Financing for Watershed Groups, Using EPA's Draft Handbook for Developing Watershed Plans and more are also available online.

To register for the webcast, visit the [EPA Watershed Academy Webcast webpage](#).

## Feature

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### Part I – Smart Growth Opportunities In PA Small Steps Toward Smart Growth in Southwestern PA Jonathan R. Farrell

Recently, the Pittsburgh region has experienced a blossoming of environmentally sound development projects: brownfields redeveloped, riverfront parks established, and walk and bike paths constructed through greenways around the region.

Yet while Pittsburgh deserves praise for these continuing efforts and has rightly been dubbed a green city, little has been done to control the sprawling, inefficient development that has transformed townships in the outer suburban and rural areas in the Pittsburgh Metropolitan Area.

In the late 1960s and 1970s, the Southwestern Pennsylvania Regional Planning Commission (now the Southwestern Pennsylvania Commission) issued a series of reports highlighting the importance of carefully planned suburban “commuter sheds” and open space for conservation. Yet after a quarter century of warnings about the problems of low-density development, most local governments still lack the resources and discipline that are needed to govern haphazard development and encourage smart growth.

Decades of data collection and analysis have clearly charted the trend: sprawling, low-density suburban development voraciously filling the space between urban cores and the rural countryside; residential developments further from traditional job centers; highways further out from beltways; center-less cities, and an increasingly protracted utility and transportation infrastructure. As low-density development has become the norm around most metropolitan areas in the U.S., it is now a top concern for many policy makers, planners, and resource managers because of its impacts on increasingly limited natural resources and transportation and utility infrastructures.

Many studies analyzing development trends conducted during recent years have called for greater coordination between municipal planning agencies and more planning on a regional scale. Land use planning and development practices, in Pennsylvania and most parts of the country, are megaliths slow to respond to the recommendations of these reports, but some progress is being made.

Last year, the Tides Center and Pennsylvania Environmental Council, working with the Southwestern Pennsylvania Commission (SPC) and the PA Department of Conservation and Natural Resources (DCNR) and Environmental Planning and Design, LLC, developed a GIS-based land use planning tool, called Natural Infrastructure (NI).

The tool queries various mapped data layers of human and natural infrastructure—roads, soils, biodiversity areas, topography, etc.—and provides an inventory of regional resources as well as a framework to evaluate and resolve conflicts between different land uses.

Natural resource managers, developers, planners, and others have begun using the NI tool for planning, impact assessment, and site selection of projects such as recreational facilities, landfills, and for the identification of water supply protection zones and areas with solar and wind energy-production potential.

The NI Project is a powerful tool and moves decision-makers a step closer to being able to address lingering concerns over sprawl in southwestern Pennsylvania, but more is needed.

Years of extensive documentation and analysis have tracked the increases in the scale and scope of sprawling development trends throughout much of the country. The USDA NRCS National Resource Inventory reported on acreage converted to development every five years, especially monitoring the conversion of farmland. Cost of community studies like those by the American Farmland Trust and, in Pennsylvania, by Tim Kelsey at Penn State University, tracked the balance of expenditures (infrastructure and services) and revenue (in taxes) of different land uses. Remotely sensed spatial data showed us the spread of paved and built land through increases in impervious surface cover.



Other GIS-based processes like road density analysis provided further measures of urbanization, while those more resourceful local and regional agencies in metropolitan areas produced detailed land use and urbanized areas map. Local and national census data outlined sociodemographic trends while economic and housing census tracked employment and building construction behind these population trends.

The 2003 Brookings Institute report *Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania* summarized some of the most alarming trend data and reviewed recent development trends in southwestern Pennsylvania.

According to the report, in the last few decades, southwestern Pennsylvania has experienced a dramatic increase in developed land amid a significant population decline—a uniquely aberrant development trend.

From 1982 to 1997, the Pittsburgh Metropolitan Statistical Area (MSA) (Allegheny, Armstrong, Beaver, Butler, Fayette, Westmoreland, and Washington counties) lost more than 5 percent of its population (134,000 residents, loss of 9,000 per year).

In those same fifteen years, more than 200,000 acres of land were converted to development—more than a 40 percent increase in developed land—while the number of households in the Pittsburgh MSA grew by only 23,740, an increase of 2.5 percent. Considering that 201,800 acres of land were converted to urban use during this time, this means that 8.5 acres of land were developed for every added household by population in the region.

This is nearly seven times the national average of about 1.3 acres.

In recent decades, the Pittsburgh region has seen a dramatic trend of population decentralization, the outward movement of population from central, dense, older communities to newly constructed suburban development in outlying rural areas.

Rural areas, or second-class townships (in Pennsylvania, Second-class townships are municipalities with population density less than 300 people per square mile or that exceed this density but have not approved a public referendum changing their classification to a first-class township) in the Pittsburgh region grew by 6.5 percent (43,000) during the 1990s. Pine Township grew by 90 percent, Cranberry Township by 59 percent. These were rather incredible numbers in a region experiencing a net population loss.

In contrast, the Pittsburgh central urban area's population declined by 4.6 percent. Not surprisingly, density in the region plummeted by over 34 percent during those 15 years as 20,700 acres of prime farmland were lost to development.

Today, the major population declines in the region as a whole are beginning to tail off and urban renewal projects spot the Pittsburgh area, but the region's population and development continues to its urban exodus from centrally located Allegheny County to the rural outer counties. Recent census estimates show that from 2000 to 2004, the total net population loss in the Pittsburgh MSA was 30,000 or 1.2 percent (7,500 per year). Almost half of these losses occurred in the immediate city of Pittsburgh where there was a 12,000 or 3.6 percent decline from 2000 to 2004.

The population of Allegheny County, the central urban county containing Pittsburgh, fell by 31,000 from 2000 to 2004. In contrast, net population gains were seen in the more rural outlying counties of the Pittsburgh MSA, as Butler County gained 6,600 and Washington County gained 3,000. For every three people that left Pittsburgh, one settled in the outlying suburbs.

Looking at the construction of housing units, Butler gained 4,000 and Washington and Westmoreland each gained about 3,000 from 2000 to 2004. Even Allegheny County—which, remember, experienced a 31,000 net population loss—saw the construction of 5,400 housing units. This rapid construction facilitates the development of sprawling “exurbia” in the rural countryside.

In concert with population decentralization, sprawling development can cause all sorts of problems for residents, communities, governments, and the environment: urban blight, excessive traffic, lack of community cohesion, wildlife habitat loss and fragmentation, watershed degradation, farmland loss. Most appreciably, it can be expensive.

Poorly planned development can inflate infrastructure costs to the community for roads, schools, and utilities disproportionately to the development’s contributions through tax revenue. Cost of Community Services (COCS) studies determine the average fiscal contributions of different land uses (working and open lands, residential, commercial, industrial land uses) as compared to the cost of providing services such as sewage, roadway maintenance, and schooling to these lands.

COCS studies for the Pittsburgh area have found that the ratio of median cost of services provided per dollar of revenue is the lowest for residential land than any land use during the 1990s. While municipal officials often trust in the idea that new residential developments increases tax revenue and so see no need to restrain this type of development, the revenue generated is often not enough—depending on the taxable income of the residence that move in—to cover the high costs of providing infrastructure and public services to these developments.

A study funded by 10,000 Friends of Pennsylvania in 2000 examined increasing transportation costs in the Pittsburgh region, an indirect cost due to longer commutes of workers living in outlying suburban areas farther from urban job centers.

Between 1970 and 1990, vehicle miles traveled (VMT) per person for routine travel increased by over 90 percent in the Pittsburgh area. The average trip length increased from about seven to ten miles per trip, and VMT per household increased by over 60 percent. Annual transportation costs for the Pittsburgh region in 1990 were approximately \$9,000 for rural households and \$5,000 for suburban households but only \$2,500 for urban households.

There are, of course, many and complex reasons for sprawling development in southwestern Pennsylvania. Weak land use planning and the lack of regulations that deter sprawl and support the efficient and coordinated use of land and the conservation of open space amongst development might be considered the final reason. However, weak land use planning occurs amidst a crowd of other problems and pressures.

In many ways, the Pittsburgh region is a nexus of bizarre politics, development, and demographics. It led the nation in recent decades in incongruous and compartmentalized government, a haywire housing market, and population loss and decentralization. Some of these points help explain the context by which weak planning allows sprawl:

**Misdirected state investments.** Infrastructure and economic development investments—for transportation and other capital projects—are unevenly channeled to outlying areas rather than being reinvested in older communities. The three main state economic investment agencies, the Pennsylvania Industrial Development Authority

(PIDA), Opportunity Grant Program (OGP), and Infrastructure Development Program (IDP), allocated about \$68 per capita to projects in established municipalities in the Pittsburgh urban area and about \$70 to developments in outer suburban areas, according to the Brookings report. Notwithstanding the pressing funding needs of urban infrastructure maintenance and urban renewal projects, the state economic development investments strategy seems to reflect the tendency to favor new building rather than old renovation and is subsidizing an ever-expanding labyrinth of highways and toll roads through the countryside.

**Simple overproduction.** The ratio of housing units constructed far outpaced the actual increase in household units by population. According to the 2003 Brookings report, contrary to sense, 4.25 new housing units were built for every one net new household by population in the 1990s—and this amidst a loss in population and no projection of significant future growth! As mentioned, most of these new housing units were built in outlying second-class townships. Under the pressure of ever-present land speculation, cheap building costs for tract development, and the new interest in real estate by the investor class, the residential building market in the Pittsburgh area has been distorted, disconnected from supply and demand. The number of households in the outer townships grew by only 23,740, but this was an increase of only 2.5 percent and, considering the high nativity rate in the Pittsburgh area, is explained mostly by relocation. Older housing near or in the city was abandoned while a profusion of new housing was built in suburban and rural areas. Married couples moved farther from the city and more singles were living alone in larger housing units.

**Governmental fragmentation.** Pennsylvania has a lot of local government, and the Pittsburgh metropolitan area has the most balkanized local government in Pennsylvania—due mostly to its large historical population swell and shrinkage. According to a 2002 study by Christopher Briem at the University of Pittsburgh, there are 455 general local governments (cities, boroughs, and townships) in the Pittsburgh MSA—905 counting school districts, special districts, and the seven county governments. This amounts to 17.7 governments per 100,000 residents, the highest governments per capita ratio in the country and triple the national average of 6.1 per 100,000 (from the 2002 U.S. Census of governments). This kind of governmental fragmentation can impede coordinated land use planning and development review across municipal boundaries. Not only might municipalities be unaware of what type of development is occurring nearby, but neighboring municipalities compete with each other for development projects—resulting in an arms race of lowered standards of land use planning and regulation. Multi-municipal planning and inter-municipal agreements are becoming more common, but southwestern Pennsylvania still lags behind other parts of the state in this area.

As these points demonstrate, like many places in the country, land use planning and regulation in southwestern Pennsylvania is a long way from where it should be in order to ensure economical and ecologically aware development.

However, as efforts continue, the techniques to promote smart growth and the tools prevent poor growth are becoming more familiar and attractive to decision-makers who are looking forward to a metropolitan community that is truly smart in its growth.

**Jonathan R. Farrell** is a student in the School of Forest Resources, Pennsylvania State University. You may contact him at: 412-400-8755 or send email to: [JRF289@psu.edu](mailto:JRF289@psu.edu).

*The second and final part of this series will be published next week.*

**For more information, see these links:**

[Brookings Institute, Center on Urban and Metropolitan Policy](#)  
[Sustainable Pittsburgh](#)  
[10,000 Friends of Pennsylvania](#)  
[Pennsylvania State Association of Township Supervisors](#)  
[American Farmland Trust](#)  
[USDA NRCS National Resource Inventory \(NRI\)](#)  
[Pennsylvania Environmental Council – Ohio Headwaters Initiatives](#)

## **Quick Clips**

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Here's a selection of NewsClips on environmental topics from around the state.

[Open Space Preservation on the Ballot](#)  
[Report Lists 139 Illegal Dump Sites in Dauphin County](#)  
[Perry Recycling Site Volunteers Have Messy Job](#)  
[Schuylkill County Can Learn from Envirothon Teams](#)  
[BEA Wins Centre County Envirothon](#)  
[Editorial: Electric Rate Caps Come Off](#)  
[Coal, Not Gas Should Be Used to Generate Electricity](#)  
[Letter: Real Story on Mercury](#)  
[Solar Projects to Save Money at Two Schools](#)  
[Filters Cut Emissions on Plum Buses](#)  
[Garden Proposal Moves Forward on Brownfield Site](#)  
[PA Infrastructure Rated "D"](#)  
[Students Help Recycle Desks, Chairs](#)  
[Clarion Science Expo Draws Large Crowd](#)  
[Centre County Couple Honored for Farming, Conservation Efforts](#)  
[From Wasteland to Wonderland – Linn Run State Park](#)  
[Democratic Lawmakers Balk on Game License Increase](#)  
[Habitat Assessment Tool Will Gauge Effects of Deer Browsing](#)  
[Reminder to Citizens to Be Aware of West Nile Virus Threat](#)  
[Audubon's Art and Environmentalism Featured in Exhibit](#)  
[Birders Say Unusual Creature is a Heron-Egret Mix](#)  
[Miners to be Checked More Often on Use of Emergency Packs](#)

## **Watershed NewsClips**

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Read a sampling of NewsClips on watershed topics from around Pennsylvania.

[Work Begins on Dunkard Creek Mine Drainage Project](#)  
[Students Learn Ecosystem Lesson in Raising Trout](#)  
[A Close Watch on the River](#)

[Action Photos From Swatara Creek Sojourn](#)  
[Protecting Brook Trout Presents Challenge](#)  
[Study Shows Brook Trout in Danger](#)  
[Drier-Than-Normal Conditions Could Lead to Problems](#)  
[U.S. Backs Limits on Horseshoe-Crabbing in Delaware Bay](#)  
[Allegheny County to Resume Daily River Water Advisories May 15](#)

## **Watershed Awareness Month Activities**

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This special Calendar section is devoted to activities going on in and around Watershed Awareness Month in May. If you have events to add, send them to:

[DHess@HolstonCrisci.com](mailto:DHess@HolstonCrisci.com).

### **Beaver County**

- **May 20, June 3** – [Tire Collection Events](#) at various locations around the county starting at 9:00 a.m. at all locations.

### **Clinton County**

- **May 20** – Join Clinton County CleanScapes and DCNR to remove flood debris from the Torbert Island Natural Area. Contact Project Director Elisabeth Lynch by sending email to [elynch@clintoncountypa.com](mailto:elynch@clintoncountypa.com) for more information.

### **Erie County**

- **May 20** – 4th Annual Bike Around the Bay event for Earth Force youth program, 10, 30 and 50 mile routes - all proceeds go to Earth Force youth program – Call 814-835-8069 or [bab@lea.earthforce.org](mailto:bab@lea.earthforce.org)
- For more information on Erie County events, send email to: [ssmith@lea.earthforce.org](mailto:ssmith@lea.earthforce.org).

### **Monroe County**

- **May 20** – [Tobyhanna Creek/Tunkhannock Creek Watershed Association](#) Wetland Trail Ribbon Cutting. Pocono Mountain West High School. 10:00 a.m. Contact: 570-643-2001 or send email to: [mlord@ptd.net](mailto:mlord@ptd.net) .
- **May 20** – [Aquashicola Pohopoco Watershed Conservancy](#) Open House. Polk Township Park (Rt. 534 in Kresgeville). 10:00 a.m. to 2:00 p.m. Contact 610-681-4873 or send email to: [info@apwc-pa.org](mailto:info@apwc-pa.org) .
- **May 21** – Bank and Stream Life in Our Watershed Program by [North Poocono CARE](#). Learn how you can help to preserve this heritage by visiting the Thornhurst Volunteer Fire & Rescue Company Annual Auto, Truck and Motorcycle Show. 10:00 a.m. to 3:00 p.m. Contact: 570-472-3274 or send email to: [NPCARE@att.net](mailto:NPCARE@att.net) .
- **May 27** – [Broadhead Watershed Association](#) River Ramble III. Pick up your map and directions and set off on this self-guided tour of creeks and other waterbodies in the Broadhead Watershed. An “after-Ramble” gathering is planned at 4:30. Meet at the Barrett Friendly Library in Mountainhome at 1:00 p.m. Contact: 570-839-1120 or send email to: [broadheadwater@enter.net](mailto:broadheadwater@enter.net) .

### Philadelphia County

- **May 23** – [Saylor Grove Wetland Dedication](#), Philadelphia Water Department. Lincoln Dr. & Wissahickon Dr. and Rittenhouse Ave, Philadelphia. 6-8:00 p.m. Contact: [Tiffany.Ledesma@phila.gov](mailto:Tiffany.Ledesma@phila.gov) 215-499-3756.

### Schuylkill County

- **May 21** – Bear Creek Festival: 12PM – 4PM at the Schuylkill County Fairgrounds, Rte 895 Summit Station, PA. The 5th Annual Festival provides live entertainment, hands on activities for children, great food, watershed educational programs and great family fun! Call 570-622-4124x113 or e-mail Porcupine Pat at [porcupinepat@yahoo.com](mailto:porcupinepat@yahoo.com)

### York County

- **May 18**– CCWA’s 9th Annual Meeting, 7 pm, at York Water Company’s Lake Redman facility
  - **May 22**– What’s the Big Deal about Invasives? Workshop, 7-9 pm at ANNEX, sponsored by MAEscapes
- For more information on York activities is available from Gary Peacock, York Watershed Specialist, by sending email to: [GPeacock@Yorkccd.org](mailto:GPeacock@Yorkccd.org) .

## Regulations

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There were no new regulations published this week.

[Pennsylvania Bulletin – May 13, 2006](#)

**Comment Deadlines:** [Technical Guidance \(DEP website\)](#)

[Copies of Proposed Regulations \(DEP website\)](#)

[Status of Regulations, 6-Month Calendar \(DEP website\)](#)

## Technical Guidance & Permits

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The Department of Environmental Protection [published two draft guidance documents](#) for comment this week, a model stormwater management ordinance and guidelines for submitting oil and gas well bonds as well as a [proposed Air Quality General Permit for Feed Mills](#) and the latest list of [certified radon testing and remediation firms \(PaB 2340\)](#)

Draft: DEP ID: 363-0300-003. Pennsylvania Model Stormwater Management Ordinance (Draft Ordinance). The purpose of the Draft Ordinance is to combine and supersede previous model ordinances for stormwater management published by the Department in documents #392-0300-001: Stormwater Management Guidelines and Model Ordinances and #392-0300-003: Guidelines on MS4 Ordinance Provisions (In Relation to National Pollutant Discharge Elimination System (NPDES) Stormwater Discharges Permitting



## PA Environment Digest – Holston & Crisci

Requirements from Municipal Separate Storm Sewer Systems (MS4s). Comments due: June 12.

Draft: DEP ID: 550-2501-101. Guidelines for Submitting Oil and Gas Well Bonds. This document provides instruction to bond applicants and financial guarantors for submitting proper documents and financial instruments for oil and gas well bonds. Comments due: June 12.

[For copies of Draft Technical Guidance \(DEP website\)](#)

[For copies of Final Technical Guidance \(DEP website\)](#)

### Calendar of Upcoming Events

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Upcoming conferences, meetings, workshops, plus links to other online calendars. Meetings are in Harrisburg unless otherwise noted. [Go To: PA Environment Digest Calendar Page](#)

- [Notice of Regional State Water Plan Advisory Committee meetings.](#)
- **May 18-19** – [2006 Pennsylvania Heritage Partnerships Conference.](#) Preservation PA. Franklin, Venango County.
- **May 20** – Dauphin County Community Recycling Event. HACC Parking Lot. 9:00 a.m. to 1:00 a.m.
- **May 22** – Joint Legislative Air and Water Pollution Control and Conservation Committee Environmental Issues Forum to hear presentation on LaFarge Alternative Energy Initiative. Room 205 Ryan Building. 12:00.
- **May 24** – Senate Environmental Resources and Energy Committee hearing on reducing mercury emissions from power plants. Room 8E-A East Wing. 9:15.
- **May 24** – DCNR [Conservation and Natural Resources Advisory Council](#) meeting. Room 105 Rachel Carson Building, Harrisburg. 10:00.
- **May 26** - DEP [Chesapeake Bay Tributary Strategy Steering Committee](#) meeting. Room 105 Rachel Carson Building. 10:00 to 1:00.
- **June 12** – [Joint Legislative Air and Water Pollution Control and Conservation Committee](#) Environmental Issues Forum – Jim MacKenzie, [Octoraro Native Plant Nursery](#) “Going Native – Opportunities for Using Native Plants in Pennsylvania.” Room 205 Ryan Building. 12:00.
- **June 26** – Governor’s Renewable Agriculture Energy Council meeting. Room 309 Agriculture Building. 10:00.
- **July 19** – Governor’s Invasive Species Council meeting. Agriculture Building, 2301 N. Cameron St., Harrisburg.
- **October 31-November 5** – [National Historic Preservation Conference.](#) National Trust for Historic Preservation. Pittsburgh.

[DEP Calendar of Events](#)

[Watershed Events](#)

(courtesy [PA Organizations for Watersheds & Rivers](#))

[Environmental Education Workshop/Training Calendar](#)

(courtesy [PA Center for Environmental Education](#))

[Senate Committee Schedule](#) [House Committee Schedule](#)

**Helpful Web Links**

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[Daily NewsClips](#) [Daily DEP Update](#) [GreenTreks Network](#) [Watershed Weekly](#)

[DEP Press Releases](#) [DEP Advisory Committee Meetings & Agendas](#)

[DCNR Resource Magazine](#) [DCNR Press Releases](#)

[Fish & Boat Commission Press Releases](#) [Game Commission Press Releases](#)

**Stories Invited**

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Send your stories about environmental issues, programs and positive actions to **PA Environment Digest** - [DHess@HolstonCrisci.com](mailto:DHess@HolstonCrisci.com) or go to [www.PaEnvironmentDigest.com](http://www.PaEnvironmentDigest.com) .

**PA Environment Digest** is edited by David E. Hess, former Secretary Pennsylvania Department of Environmental Protection, and is published as a service to the clients of Holston & Crisci and the public. Holston & Crisci is a Harrisburg-based government and public affairs firm whose clients include Fortune 500 companies and non-profit organizations. For more information on Holston & Crisci call 717-234-1716.

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Visit the [Professional Services Directory](#) and [Events Calendar](#)