

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



Happy New Year to all the faithful readers of the *Environmental Synopsis*. It is my hope that everyone had a wonderful Christmas, a joyous beginning to the new year and is looking forward to the challenges and opportunities that 2006 will undoubtedly offer.

January is a significant month in the United States and in our country's history. During the month of January, for example, we celebrate the birthdays of Betsy Ross (Jan. 1), Martin Luther King, Jr. (Jan. 15), Benjamin Franklin (Jan. 17) and Robert E. Lee (Jan. 19) among others. President Abraham Lincoln issued the Emancipation Proclamation on January 1, 1863. And, there are many other days of national importance. I'd like to write today about a month-long observance that is of statewide as well as national importance, in terms of health and the environment.

Did you know that January is National Radon Action Month? If you did know, have you done anything about it? The Joint Conservation Committee joins with the Pennsylvania Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA) in the effort to increase awareness of the presence of radon in many of our homes, its health effects and what you can do to test for and combat radon.

Radon is, quite simply, a killer. The U.S. Surgeon General says it is the second leading cause of lung cancer in the United States today, second only to smoking. The National Academy of Sciences estimates that radon causes between 15,000 and 22,000 lung cancer deaths per year. And yet, radon is often ignored.

It's easy to ignore because it is an odorless, tasteless, colorless, naturally occurring radioactive gas given off by the breakdown of uranium. It most often finds its way silently into homes through a variety of unnoticed and small entrance ways. If you were using only your senses, you wouldn't find it even if you were looking for it. However, it is present in many Pennsylvania homes, and if EPA and DEP are to be believed, it is found in elevated levels in an estimated 40 percent of Pennsylvania homes.

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NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR

Supporters of urban greening programs often promote benefits that are largely hard to quantify, such as improving the quality of life and fostering a sense of community pride. However, a new study from the University of Pennsylvania's Wharton School is set to change all that by now offering solid evidence that investment in urban greening adds significant economic and social benefits, specifically dramatically increasing real estate values.

The study, produced and developed by Susan Wachter, professor of real estate, finance and city and regional planning at the Wharton School, concentrates its efforts in New Kensington, Pennsylvania, a neighborhood in northeastern Philadelphia. The study found that implementing urban greening strategies such as tree planting and stabilization of vacant land by replacing abandoned lots with "clean and green" landscapes of mowed grass and trees resulted in surrounding housing values increasing by as much as 30 percent.

New tree plantings alone accounted for an increase in surrounding housing values of approximately 10 percent. In the New Kensington area, this translated into a \$4 million increase in property values and a \$12 million gain through lot improvements. These improvements translated into many indirect benefits, such as encouraging additional investments on surrounding properties and more broad-based neighborhood reinvestments, while favorably impacting the city's property tax base.

Beginning in 1995, the Pennsylvania Horticultural Society's Green Program worked in conjunction with the New Kensington Community Development Corporation to address the issue of blight, caused by more than 1,100 abandoned properties in the neighborhood. The organizations also worked

together to develop a strategy for vacant land management. The goal was to improve the appearance of the neighborhood, stabilize and reverse population losses, and ultimately attract new residents and encourage investment.

The partnership created a comprehensive greening strategy that stabilized vacant lots by clearing debris, installing fencing and planting trees, creating community gardens, renovating parks and transferring vacant lots to adjacent homeowners for private use. The results were 480 newly planted trees, 145 settled side yards, 217 stabilized lots and 15 community gardens. After implementation of the greening strategy, renovated houses were selling and vacant lots were being purchased in a neighborhood that

The New Kensington urban greening experiment resulted in renovated houses being sold and vacant lots purchased... where land could not be given away previously

couldn't give the land away before the program was started.

Other key findings of the Wharton study:

- Planting a tree within 50 feet of a house can increase its value by about nine percent.
- Location of a house within one-quarter mile from a park increased values by 10 percent.
- Neighborhood blocks with higher concentrations of unmanaged vacant lots displayed lower housing prices, by about 18 percent.

Clearly, the greening of the New Kensington area has had a positive economic effect on the community and the project serves as a model for other communities to follow suit. The Wharton study shows that greening can be an important economic tool for revitalization and also works well for intangible community benefits such as improving quality of life and increasing a sense of community pride.

More information about the study may be obtained by calling the committee office.

RESEARCH BRIEFS

Each month, the committee's staff researches and prepares a number of "briefs" on several topics relevant to the Joint Conservation Committee's mission. Very often, these briefs include references to reports and further research on the topics so that readers may pursue issues on their own.

Bankruptcy of Polluting Companies Shifts Cleanups to Taxpayers

– Tony M. Guerrieri, Research Analyst

The burden of cleaning up Superfund and other hazardous waste sites is increasingly shifting to taxpayers, particularly since businesses handling hazardous substances are no longer taxed under Superfund and the backlog of sites needing cleaning up is growing. While key environmental laws rely on the "polluter pays" principle, the extent to which liable parties cease operations or restructure – such as through bankruptcy – can leave taxpayers liable for billions in cleanup costs, according to a report by the U.S. Government Accountability Office (GAO).

The GAO report "*Environmental Liabilities: EPA Should Do More to Ensure That Liable Parties Meet Their Cleanup Obligations*" examines how many businesses with liability under federal law for environmental cleanups have declared bankruptcy, and how many such cases the government has pursued in bankruptcy court. The report also identifies challenges the U.S. Environmental Protection Agency (EPA) faces in holding bankrupt and other financially distressed businesses responsible for their cleanup obligations.

While 231,630 businesses operating in the United States filed for bankruptcy between 1998 and 2003, the extent to which these businesses had environmental liabilities is not known because neither the federal government nor other sources collect this information. Information on bankrupt businesses with federal environmental liabilities is limited to data on the bankruptcy cases that the U.S. Department of Justice has pursued in court on behalf of the EPA. In that regard, the Justice Department initiated 136 such cases between 1998 and 2003.

The GAO report provides an informative overview of the interaction of America's bankruptcy and environmental laws, noting that the two sets of laws frequently conflict – the bankruptcy laws are designed to enable debtors to discharge their obligations and get a fresh start, while environmental laws seek to

hold those same debtors responsible to pay for the environmental harm they have caused. Businesses can legally organize or restructure in ways that can limit their future expenditures for cleanups by, for example, transferring their assets to parent corporations or subsidiaries to limit their exposure in bankruptcy proceedings. While such actions are generally legal, transferring assets with the intent to hinder or defraud creditors may violate federal law in some cases. However, such cases are difficult for the EPA to identify and for the Justice Department to prosecute successfully.

The report states that EPA could make better use of authority it already has in seeking better compliance with cleanup obligations by financially distressed businesses

Moreover, by the time a business may file for bankruptcy, it may have few, if any, assets remaining to distribute among creditors. In addition, the bankruptcy process also poses procedural and informational challenges for EPA. For example, EPA lacks timely, complete, and reliable information on the thousands of businesses filing for bankruptcy each year.

Still, EPA could better ensure that bankrupt and other financially distressed businesses meet their cleanup obligations by making greater use of existing authorities, the GAO indicates. For example, EPA has not implemented a 1980 statutory mandate under the Comprehensive Environmental Response, Conservation, and Liability Act to require businesses handling hazardous substances to demonstrate their ability to pay for potential environmental cleanups. EPA has cited competing priorities and lack of funds as reasons for not implementing this mandate. Also, EPA has done little to ensure businesses comply with its existing financial assurance requirements in cleanup agreements and orders.

Among other things, the GAO report recommended that EPA implement a financial assurance mandate for

businesses handling hazardous substances and beef up its oversight and enforcement of existing financial assurances. Also, greater use of existing authorities, such as tax offsets, which allow the government to redirect tax refunds it owes businesses to agencies with claims against them – could produce additional payments for cleanups from financially distressed businesses.

There are now more than 1,230 sites listed for cleanup under the Superfund program. It is estimated that the 142 largest toxic sites could cost \$20 billion to clean. The EPA is already wholly or partially funding cleanup of 60 of these large sites.

The report *“Environmental Liabilities: EPA Should Do More to Ensure That Liable Parties Meet Their Cleanup Obligations”* can be found on the GAO’s website at this address: <http://www.gao.gov/new.items/d05658.pdf>.

Power Plants Cut Sulfur Dioxide Emissions

– Craig D. Brooks, Executive Director

Electric power generation is by far the largest single source of sulfur dioxide emissions in the United States, accounting for nearly 70 percent of the total sulfur dioxide emissions nationwide. In the 10 years since the U.S. Environmental Protection Agency (EPA) began its Acid Rain Program, significant reductions in both sulfur dioxide (SO₂) and nitrogen oxide (NO_x) continue. According to the EPA *“Acid Rain Program 2004 Progress Report”*, electric power generation sources reduced their annual SO₂ emissions by 34 percent compared with 1990 levels, a decrease of more than 5 million tons. NO_x emissions have fallen about 3 million tons since 1990 and have fallen to nearly half the level anticipated without the acid rain program.

Acid deposition, more commonly known as acid rain, occurs when emissions of SO₂ and NO_x react with water, oxygen and oxidants in the atmosphere to form various acidic compounds. Predominant winds transport the acidic compounds across state lines and national borders where they impair air quality and acidify lakes and streams, degrade forest and coastal ecosystems and impair public health. The goal of the acid rain program, begun in 1995, is to reduce the annual emissions of SO₂ by 10 million tons and NO_x by 2 million tons below projected levels.

The Acid Rain Program, established under Title IV of the 1990 Clean Air Act Amendments, requires major

reductions of SO₂ and NO_x emissions from electric power facilities. The SO₂ program sets a permanent cap on the total amount of SO₂ that may be emitted by electric power plants in the contiguous United States. The program is phased in, with the 2010 SO₂ cap set at about one-half of the 1980 emissions from the power sector. Emissions have fallen significantly at the same time as combustion of fossil fuels (coal, oil and natural gas), measured as “heat input” has actually increased. The increase in electricity generation has not only been achieved at lower emission levels, it has occurred while the retail price of electricity has actually fallen.

Since the start of the Acid Rain Program in 1995, the Acid Rain Program has:

- Led to significant cuts in acid deposition, including reductions in SO₂ and NO_x in some regions of the United States.
- Resulted in fewer acidic lakes.
- Provided the most complete and accurate emission data ever developed under a federal air pollution control program and made that data available and accessible by using comprehensive electronic data reporting and web-based tools for agencies, researchers, industry sources and the public.
- Served as a leader in delivering e-government accessibility and providing online systems for doing business with EPA
- Resulted in nearly 100 percent compliance through rigorous emissions monitoring, allowance tracking and an automatic penalty system for noncompliance.

In the Spring of 2005, EPA promulgated new air quality rules designed to address additional reductions of SO₂ and NO_x and mercury from power plants. These rules include the Clean Air Interstate Rule (CAIR), the Clean Air Mercury Rule (CAMR) and the Clean Air Visibility Rule (CAVR). EPA projects that these rules will result in further reductions of SO₂, NO_x and mercury, coupled with recent rules to reduce fine particulates from motor vehicles. Future progress reports will include information on CAIR, CAMR and CAVR while continuing to report on the Acid Rain Program.

The EPA *“Acid Rain Program 2004 Progress Report”* is available at <http://www.epa.gov/airmarkets/cmprpt/arp04/index.html>.

Sound Warning: Global Warming Hitting Washington State

– Tony M. Guerrieri, Research Analyst

The Puget Sound region of Washington state is feeling the impact of climate change – from flooding to warmer waters – and things could be getting worse, according to a report commissioned by the Puget Sound Action Team.

The report, prepared by the University of Washington's Climate Impacts Group, is the first detailed assessment of how climate change has affected, and will continue to affect, the Puget Sound environment. The 36-page report, "*Uncertain Future: Climate Change and its Effects on Puget Sound*", focuses on the consequences of a warmer climate on the larger Puget Sound ecosystem, including what the future might hold for snowpack, stream flow, water quality, precipitation patterns, air and water temperatures, and the plants and animals that live in the Puget Sound.

Already, the report finds, the region's signature body of water is warming faster and its water levels are rising quicker than waters in many other parts of the world. For example, Pacific Northwest temperatures have been rising faster than the global average. The average annual air temperature around the Sound rose 2.3 degrees Fahrenheit during the last century, more than double the average increase globally of 1.1 degrees.

Meanwhile, water levels in south Puget Sound are expected to increase 1.3 feet by 2050, higher than in most areas of the world because changes in Pacific Ocean wind patterns drive more seawater into Puget Sound. The change will be compounded because geological factors are causing the land in the Olympia and Tacoma areas to sink about an inch every 12 years.

Runoff from the rivers and streams that spill into the Sound is already shifting, according to the report. Peak accumulations of Cascade Mountains snowpack have declined since 1950, reducing the reservoir of water available for hydropower production, municipal supplies, irrigation and fish. The amount of fresh water that flows into Puget Sound dropped 13 percent between 1948 and 2003.

With lower snowmelt, more of the Northwest's precipitation comes as rain, the report indicates, so flooding is likely to increase because the water is not held in mountain snowpack. And that could affect how sediment and debris is washed into the Sound.

Among the report's other findings:

- Virtually all of the glaciers in the Cascade and Olympic Mountains have been retreating the past 50 to 150 years.
- Lake Washington has warmed substantially and there is evidence of rising temperatures in the Strait of Juan de Fuca.
- Scientists project that Puget Sound waters will warm in the future, potentially putting many species at risk including plankton, the foundation of Puget Sound's food web. Water temperatures measured near Victoria, B.C., have risen nearly two degrees since 1950.
- Lower summer and fall flows and warming waters, along with increases in winter flooding, could further stress Puget Sound salmon, which depend on cold water.
- In recent years, sewage from septic systems, agricultural runoff and dumped salmon carcasses have lead to algal blooms and decreased oxygen levels, which can kill marine life.

The report suggests changes caused by a warming climate are likely to reverberate across the Puget Sound ecosystem in complex and unpredictable ways, disrupting crucial interaction between Puget Sound plants and animals and their environment.

In order to plan for the climate of the future, the report recommends policy makers, planners and resource managers should recognize that the past may no longer be a dependable guide to the future, and take actions to increase the adaptability of regional ecosystems to future change.

The report concludes that climate change in the Puget Sound region is inevitable. Human activities during the past 150 years have committed the planet to a changing climate in the 21st century. Because greenhouse gases remain in the atmosphere for decades, and because the ocean takes centuries to relate with the atmosphere, even if humans stopped emitting carbon dioxide today, warming would continue for many decades.

The Puget Sound Action Team, a state agency, was created two decades ago to help direct preservation and restoration of the Sound, tracking its health and reporting on the progress of efforts to help the water body. The Puget Sound Action Team's report "*Uncertain Future: Climate Change and its Effects on Puget Sound*" is available on the Internet at: <http://www.psat.wa.gov/climatechange>.

Electricity From Renewable Resources Grew Tenfold in Five Years

– Craig D. Brooks, Executive Director

Electric power generated from renewable resources such as wind power and biomass has grown more than tenfold in the past five years. According to a Department of Energy report, electric generating capacity rose from 167 megawatts to 2,233 megawatts from 2000 to 2004. The report suggests that renewable or “green” power now accounts for about 2 percent of the nation’s electricity supply but is growing rapidly as demand also rises. In addition, the U.S. Environmental Protection Agency (EPA) suggests that green power purchases by large organizations participating in the Agency’s Green Power Partnership have doubled in the past 15 months.

The report documents green power marketing activities and trends in the United States and provides an overview of green power markets, including product pricing, sales and consumer response. It also provides brief descriptions of green pricing programs and information on a select number of large green power purchasers, including residential, businesses, universities and government agencies.

Currently, about 600 utilities offer green power programs to customers in 34 states. Collectively, utilities sold more than 1.8 billion kilowatt/hours of green power to retail customers through green pricing programs in 2004. These programs allow customers to purchase some portion of their power supply as renewable energy – almost always at a higher price – or to contribute funds for the utility to invest in renewable energy development. The term “green pricing” is typically used to refer to these utility programs offered in regulated or non-competitive electricity markets. In some competitive retail electricity markets, electricity customers can purchase electricity generated from renewable resources by switching to an alternative electricity supplier that offers green power. In addition, in some states, default suppliers offer green power options to their customers in conjunction with competitive green power marketers. To date, nearly a dozen states that have opened their markets to retail competition have experienced some degree of green power marketing activity.

Residential purchases of renewable energy continue to dominate sales of green power, comprising 56 percent of all sales in 2004. About 520,000 customers nationwide are purchasing green power. In addition, sales of green power through tradable renewable energy certificates (RECs) grew 162 percent between 2003 and 2004 to 1,720 million kilowatt/hours. RECs provide another alternative to switching electricity suppliers. Also known as “green tags” or tradable renewable

certificates, RECs are issued by an independent body to electricity generators from renewable resources for each unit of electricity produced. The generators can sell the RECs on the open market to utilities, who then can sell them to customers as part of the purchase price of their electricity. This way, utilities can label their electricity as green power.

EPA’s Green Power Partnership has grown from 21 initial participants in 2001 to more than 600 today, while electric power from renewable sources has grown more than tenfold

According to the report, the continuing growth in the use of RECs is expected to put pressure on reducing green power prices in all voluntary purchase markets. Only a handful of utilities offer lower green power rates or volume discounts for large non-residential customers. RECs will likely become an increasingly important sales vehicle for green power in competitive markets, particularly with large non-residential customers.

In addition, EPA’s Green Power Partnership has grown from 21 initial participants in 2001 to more than 600, including large companies, universities, trade associations and government agencies. The partnership is a voluntary program that encourages large organizations to pledge to tap green power for a specified portion of their annual electricity usage. In exchange, participants get EPA technical assistance and recognition. Green Power Partnership participants are purchasing 3.1 billion kilowatt/hours of electricity from renewable energy resources annually, enough to power 300,000 homes.

The Department of Energy report, “*Green Power Marketing in the United States: A Status Report (Eighth Edition)*”, is available at <http://www.eere.energy.gov/greenpower/resources/pdfs/38994.pdf>.

News to Use in the Environmental Synopsis... share it with a friend

The *Environmental Synopsis* is issued monthly.

The newsletter examines timely issues concerning environmental protection and natural resources.

If someone you know would like to receive a copy of the *Synopsis* each month, please contact the committee office at 717-787-7570.



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ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS

✓ **Monday, February 13, 12 noon, Room 205, Matthew J. Ryan Building – Environmental Issues Forum.** The principals of Innovative Rail Solutions (IRS), exclusive distributors for a composite railroad tie manufactured primarily from recycled waste materials, will describe their company, its product and its ties to Pennsylvania. IRS expects to begin full-scale manufacturing in mid-February and intends to expand its base of manufacturing to mid-state Pennsylvania within 18 months. Upon expansion, IRS will begin to source raw materials from Pennsylvania, creating opportunities to recycle material formerly destined for landfills. Join Michael McNamara and Charles Nygard to learn more about the recycling technology and PA expansion plans of Innovative Rail Solutions.

Environmental Issues Forums are open to the public. Please call the committee office at (717) 787-7570 if you would like to attend.

COMMITTEE CHRONICLES . . .

REVIEW OF SOME MEMORABLE COMMITTEE EVENTS

Weaver, Inc. is a two-generation, family owned hardwood lumber manufacturing company in Lebanon County. It was founded in 1941 and with more than 500 employees is one of Lebanon County's largest employers and a vital part of Pennsylvania's and the nation's hardwoods industry.

Weaver is dedicated to responsible and sustainable forest management and has invested \$40 million in its manufacturing plant since 1998. A small portion of the plant's operation is shown at right.

The Joint Conservation Committee learned that and much



more in a recent visit to Weaver's facility. In the photo at left, committee chair Rep. Scott Hutchinson (center, facing camera) listens as Weaver President and CEO Galen Weaver (left) describes the plant operation.



Company officials also described their logging operation during

a visit to nearby forest land (photo at right) to committee Executive Director Craig Brooks (left), PA Forest Products Association Executive Director Paul Lyskava (2nd from left) and Rep. Hutchinson (right).



(Continued from page 1)

It most often enters homes from soil gas (although well water can be another source) and most often enters through cracks in solid floors and in walls, construction joints, gaps in suspended floors and around service pipes, and cavities inside walls. Radon levels can vary widely from region to home and even home to home. So, if your next door neighbor has tested his home and is radon-free, don't assume that your home will be also.

So, what should you do about radon? Both EPA and DEP recommend that you have your home tested. This is relatively easy and inexpensive to do. There are a variety of tests, both short-term and long-term, and a variety of testing devices. EPA and DEP offer guidelines on where and how to test.



Have you tested your home for radon?

Simple but accurate test kits are available at many home centers and hardware stores, or from a Pennsylvania certified laboratory. All analysis of the results must be done by a Pennsylvania certified laboratory. Make sure to check that when shopping for a test kit. You can also order radon test kits by phone by calling 1-800-SOS-RADON, a toll-free line operated by the National Safety Council and EPA.

To verify PA certification or to get more information on radon, visit the state website at www.state.pa.us and enter keyword "DEP Radon" or call 1-800-237-2366

Radon levels are measured in "picocuries per liter of air" (pCi/L) and the rule of thumb is that if radon levels are 4 pCi/L or higher, the EPA recommends that you take action to reduce your home radon levels. There are a variety of ways, several relatively simple, to reduce radon. Check out the "*Pennsylvania Consumer's Guide to Radon Reduction*" on the same website listed above for more information.

Pennsylvania recently announced an expansion of its "Newborn Radon Program", aimed at helping more families protect themselves and their children from radon. Nineteen new hospitals have joined the 50 Pennsylvania hospitals, including the Northwest Medical Center in my home county of Venango and the Butler Memorial Hospital in Butler County, that were already participating in the program. Participating hospitals provide a radon booklet, which contains a certificate for a free radon testing kit, as part of the information new parents receive before they leave the hospital. Call 1-800-237-2366 to find out more.

While January is National Radon Action Month, you can test for radon any time. So, if you find that the hustle and bustle of the new year's first month passes you by, take action on radon in February...or March or April or...I think you get the picture. Peace of mind and ensuring your family's safety help to make a Happy New Year.

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