

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



I am honored to have recently been named to be a member of the newly established "Green Ribbon Commission." The bi-partisan advisory group, composed of members of the state House and Senate and individuals appointed by the Governor, will assess Pennsylvania's current programs regarding the environment, study and develop recommendations for enhancing those programs, and determine funding options to address environmental problems in the Commonwealth.

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The Green Ribbon Commission will examine programs and funding to improve Pennsylvania's environment for the future

The impetus for the commission's formation came during the debate over Pennsylvania's 2004-2005 state budget. In light of the recent historic investments in environmental improvements made under the \$ 1.2 billion Growing Greener Initiative, including guaranteed funding of over \$ 85 million per year through 2012, we will evaluate whether additional

programs are needed and how they will be paid for. Among the commission's expected topics of discussion are farmland and open space preservation, abandoned mine reclamation and hazardous waste site cleanups. All are issues that the Joint Conservation Committee has worked on over the years. I look forward to the opportunity to delve into them in more detail.

Rep. Hutchinson listens intently during the first meeting of the Green Ribbon Commission



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NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, DIRECTOR

Flushing money down the toilet will surely take on a new meaning this year as Maryland lawmakers prepare to implement the workings of a newly created fund to help clean up the Chesapeake Bay. In what's being called the most important pollution-reducing initiative in Maryland in the past 20 years, the "flush tax" is expected to generate \$1 billion over the next 10 years by charging \$2.50 a month on sewer bills and a \$30 annual fee on septic systems. The revenue it generates is designed to support the Chesapeake Bay Watershed Restoration Fund to be used to clean up the Bay.

Maryland's "flush tax" will be used to upgrade sewage treatment plants and help failing septic systems... A similar program is being looked at in Virginia

Where did such an idea come from? The tax is actually related to a 2000 regional agreement (www.chesapeakebay.net) between Virginia, Maryland, Pennsylvania, Washington, D.C., the U.S. Environmental Protection Agency (EPA) and the Chesapeake Bay Commission that called for the development of a river-specific plan to reduce nutrient and sediment pollution in the Bay by 2010 and regenerate fish, crab and oyster populations.

High nitrogen concentrations in Bay waters are said to be the most serious water pollution problem facing the Chesapeake Bay. Each year, roughly 300 million pounds of nitrogen reach the Bay. Nitrogen pollution from sewage treatment facilities is a primary contributor to the Bay's "dead zone" where low dissolved oxygen levels kill fish, destroy habitat and result in excessive algae growth that clouds water and impacts bay grasses and crabs.

Although the 66 largest sewage treatment facilities in Maryland account for 95 percent of the state's sewage problems, the Bay Restoration Fund will not only be used to upgrade the state's sewage treatment plants, but also provide grants and loans for failing

septic systems. The fund will also provide money to farmers to bolster their "cover crop" program where farmers plant winter cover to help filter nutrient runoff.

The Chesapeake Bay Foundation (CBF), a primary sponsor of the Maryland tax, is now focusing attention on developing a similar program in Virginia. According to CBF, fairly minor upgrades to current treatment facilities and some creative funding could lead to cheaper and faster reduction of nutrients entering the Bay. Because most treatment facilities are purposely over-designed to anticipate increases in future populations, tapping into their excess treatment capacity could result in cleaning up the Chesapeake Bay for less than half the \$1.2 billion estimated by the Chesapeake Bay Program. The CBF (www.cbf.org) says that a report from Virginia Tech provides a plan for nutrient removal and for meeting the 2010 cleanup deadline.



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.

GAO Recommends SEC Improve Tracking of Corporate Disclosures of Environmental Liabilities

- Tony M. Guerrieri, Research Analyst

Industrial companies have faced billions in liabilities over issues ranging from hazardous waste contamination to greenhouse gas emissions. Corporations for their part are never eager to make such disclosures known for fear of scaring away investors or losing ground in the stock market. Some companies hide, downplay or understate clean-up costs, fines, and other environmental liabilities that shareholders should know about.

A report by the U.S. General Accountability Office (GAO) recommends the U.S. Securities and Exchange Commission (SEC) improve the means by which it tracks environmental disclosures in corporate filings. The report, *"Environmental Disclosure: SEC Should Explore Ways to Improve Tracking and Transparency of Information"*, examines key aspects of the SEC's oversight of these disclosures including how stakeholders view the SEC's definition of the requirements for environmental disclosure, the adequacy of the SEC's efforts to monitor and enforce compliance with environmental disclosure obligations and suggestions for improving environmental disclosures by SEC-regulated companies.

The GAO noted that environmental risks and liabilities are among the conditions that, if undisclosed, could impair the public's ability to make sound investment decisions.

The report found that key stakeholders disagree as to how well the SEC has defined the disclosure requirements for environmental information and liabilities. Some stakeholders, particularly groups with an interest in environmental protection or socially responsible investing, maintain that the requirements allow too much flexibility and are too narrow in scope to capture important environmental information. For example, rules are vague about disclosing environmental liabilities when their exact cost is uncertain, or when costs do not need

to be paid in the near future. As a result, companies refuse to add these potential costs to their books.

In contrast, according to the report, stakeholders who viewed the existing requirements for environmental disclosure as sufficiently well defined generally represented entities responsible for reporting information to the SEC. These stakeholders felt that the flexibility in the requirements is necessary to accommodate the variability in companies' circumstances and that developing more specific guidance would not be feasible. Due to the degree of uncertainty about the impact on a company's financial condition and operations, these stakeholders also oppose requiring more disclosure of future risks, such as the estimated costs associated with potential environmental regulations.

Environmental risks and liabilities, if undisclosed, could impair the public's ability to make sound investment decisions...*The GAO*

The report also notes that it is difficult to assess the adequacy of the SEC's efforts to monitor and enforce compliance with environmental disclosure requirements without more definitive information on the extent of environmental disclosure and the results of the SEC's oversight process.

Currently, the SEC's primary means of monitoring compliance with disclosure requirements is reviewing company filings and issuing comment letters to request additional information, amendments of prior filings, or specific disclosures in future filings. According to the report, in each of the last five years, the SEC has reviewed between eight percent and 20 percent of annual company SEC filings, but the SEC does not track the nature of its comments on filings to identify common problems or trends.

The GAO recommended and the SEC agreed to creation of a searchable database at its website so investors and analysts can track environmental liabilities like clean-up costs, fines, and potential risks from pollution and hazardous materials. The changes would

also help the SEC assess how well it enforces environmental disclosure and adjust its reporting requirements.

The report also recommended the SEC and the U.S. Environmental Protection Agency (EPA) work together to increase the opportunities for the SEC to make use of EPA enforcement data that may be relevant to environmental disclosures. The EPA does not have a direct role in monitoring environmental disclosures, however it encourages the disclosure of environmental legal proceedings by notifying companies of potential disclosure obligations.

The report's study, conducted from February 2003 to June 2004, surveyed 30 experts who use SEC filings, including investors and financial analysts. It also looked at 15 earlier studies on the extent to which companies report environmental liabilities in SEC filings.

The report, *"Environmental Disclosure: SEC Should Explore Ways to Improve Tracking and Transparency of Information"*, can be found on the GAO's website at this address: <http://www.gao.gov/new.items/d04808.pdf>.

Cell Phone Recycling

- Craig D. Brooks, Executive Director

A report by a national research organization has found that the top cell phone collection programs in the United States have recovered less than one percent of the phones retired and discarded since 1999. Approximately 2.5 million cell phones were collected from 1999 to early 2003 by the programs studied, leaving millions of phones to enter the waste stream.

According to the report, an estimated 100 million cell phones, weighing approximately 50,000 tons, will be retired this year with an additional surge expected to occur because of the portability rule that allows wireless consumers to change services and discard their incompatible cell phones. Because of the volume of cell phones reaching the existing waste stream, the report focuses on cell phone collection programs. The report states, "At current rates of recovery, hundreds of millions of used cell phones will soon end up in landfills or incinerators where they have the potential to release toxic materials that threaten human health and the environment. While U.S. collection programs are making steps in the right direction, they're operating at a scale and scope that is dwarfed by the monumental size of the problem."

There are four leading collection programs in the country, including the Wireless Foundation's "Donate a Phone" program, The Hopeline Program (run by Verizon Wireless), CollectiveGood International and The Charitable Recycling Program. Although these programs are not making a significant impact on cell phone waste, they are contributing in another way. Since 1999, the collection programs have donated \$6.5 million from the sale of refurbished phones and recyclable materials to charities. Uncollected used cell phones represent lost revenue for both collection programs and the many charities that receive donations from them.

The report offers the following specific recommendations to collection program operators and policy makers:

- Programs need to offer convenient permanent drop-off sites in high traffic locations such as shopping malls, banks and post offices. Temporary collection "drives" should be replaced with permanent collection systems.
- Programs need to be broadly and aggressively publicized to spread the word about the importance of cell phone reuse and recycling. Advertising campaigns would increase public awareness of the programs and highlight their value, and in-store collection programs should be promoted as part of the seller/buyer package. Product discounts and rebates can be offered as financial incentives in an effort to enlist large-scale public participation.
- Manufacturers should be required to design standardized components that would allow interchangeability among different makes and models of cell phones, therefore eliminating battery, adapter and other accessory wastes.
- Reduction of toxic materials in cell phones with alternatives such as beryllium-copper would reduce contamination and would make the phones more recyclable.

According to the report, cell phone manufacturers can be competitive, responsible participants in the global marketplace if they adopt some of the report's recommendations. Making the necessary changes will enable cell phones to meet recycling goals being developed worldwide.

For a full text of the report, go to www.informinc.org/media/index.php.

Report Explores Chemical Dangers from Power Plants

- Tony M. Guerrieri, Research Analyst

Power plants would needlessly endanger millions of Americans in the event of chemical releases from accidents or terrorism, according to a report by the Working Group on Community Right-to-Know. The report called on government and power plant operators to reduce the danger to the public by switching to safer alternatives to ensure the safety of surrounding communities.

The report, *"Unnecessary Dangers: Emergency Chemical Release Hazards at Power Plants"*, presents an analysis of the power plants' own chemical risk management plans as submitted to the U.S. Environmental Protection Agency (EPA). Each facility's risk management plan shows how many nearby residents live in danger of exposure to a worst-case chemical release such as an accident or terrorist attack.

As many as 3.5 million people who live in communities near power plants using anhydrous ammonia and chlorine gas could be harmed by emergency chemical releases

Power plants burning coal or oil use anhydrous ammonia in air pollution control equipment and chlorine gas in their cooling or steam generation water systems. These two chemicals pose the principal emergency chemical release danger, the report says. Across the country, some 275 power plants report they use large amounts of ammonia or chlorine gas, which may be released in the event of an emergency.

The report indicates that 225 of these 275 plants could harm people off-site in an emergency release. These 225 power plants use enough ammonia or chlorine gas to collectively endanger over 3.5 million people who live in nearby communities. The report also found that 24 power plants account for two-thirds of the people in danger.

In ten states more than 100,000 people live in danger of emergency chemical releases from power plants. These states are California, Texas, Florida, Illinois, Minnesota, Pennsylvania, Missouri, Rhode Island, Virginia, and New Jersey.

In a worst-case scenario, ammonia or chlorine gas would drift downwind in a ground-level toxic plume. According to the report, numerous federal agencies and

other experts have warned that terrorists might target facilities that use extremely hazardous chemicals.

Power plants can sharply reduce the danger to communities by switching to safer chemicals. The report lists examples of safer chemicals that some power plants are already using to achieve the same results without putting workers and communities in danger. The safer alternatives include aqueous ammonia, urea, chlorine bleach and bromine. Aqueous ammonia is a liquid form of ammonia.

A power company's choice of chemicals determines the danger to the surrounding community. For example, the choice of anhydrous ammonia by some 166 power plants endangers 21,000 people on average around each facility. The choice of the far less dangerous aqueous ammonia by 69 power plants endangers an average of 205 people off-site. The chlorine gas used at 40 power plants endangers on average 4,600 neighbors. Urea can replace the extremely hazardous anhydrous ammonia, and chlorine bleach or bromine can replace chlorine gas.

Congress has considered, and continues to consider, legislation that would require facilities that store large quantities of dangerous chemicals, including power plants, to reduce the danger from chemicals by reducing storage and switching to safer alternatives when possible. This type of policy would move past the EPA's Risk Management Program, which currently simply collects information from these facilities. According to the report, Congress has been unable to decide on a course of action on this issue.

The Working Group on Community Right-to-Know was established after passage of the Emergency Planning and Community Right-to-Know Act in 1986. The group is concerned with communities' right to know about hazards and what to do about them.

The full report can be accessed at: http://www.crtk.org/library_files/PowerPlantsReport.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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Low-Level Contamination Found in Overview of River Basins

- Craig D. Brooks, Executive Director

A 10-year study of 51 river basins and aquifers revealed widespread contamination from pesticides, volatile organic compounds and other chemicals, but at low concentrations. The study also showed that seasonal spikes contributed to differences in contaminant concentrations and were often based on the frequency and magnitude of runoff from storms and land management practices.

The findings are based on water quality testing done between 1991 and 2001 by the National Water Quality Assessment Program (NAWQA) of the U.S. Geological Survey (USGS) and the Water Environment Federation, an organization of water and wastewater utility officials and other water professionals.

The first round of assessments indicates that our nation's waters are suitable for most uses, but contamination from point and non-point sources continues to affect our streams and groundwater in every area that was studied.

Findings from the 51 areas studied showed:

1. Contamination in streams and groundwater in agricultural and urban areas is widespread and is characterized by very complex mixtures of nutrients, pesticides, volatile organic compounds (VOC's) and their breakdown products; and
2. Water quality and aquatic ecosystem health are controlled by a combination of factors including chemical use, land use and management practices, and natural features such as geology, hydrology, soils and climate.

Predictably, the assessment showed concentrations of contaminants that are found in urban and agricultural areas are closely related to the chemicals that are used in the areas tested or that are released with waste products. For example, one would expect phosphorus and many insecticides to be more frequently found and usually at higher concentrations in urban streams than in agricultural areas. This proved to be true. And as expected, increased urbanization contributed to the chemical degradation in nearby streams.

But surprisingly high concentrations of pesticides were also found in urban areas. The most common pesticides found in urban streams and rivers are diazinon and malathion and they are generally found in higher concentrations in urban areas than in agricultural areas. Diazinon and malathion are common home and garden

insecticides and were found in almost all the water samples taken.

However, what was surprising was that half the pesticides detected in urban streams were not readily available in retail stores. This prompted speculation that their source may actually be commercial areas, rights-of-way along roadways and park and recreational areas. In agricultural areas, the most common pesticide detected in streams is atrazine and the herbicides cyanazine and alachlor.

In contrast, nitrogen and many herbicides generally were detected more frequently and usually in higher concentrations in streams and shallow groundwater in agricultural areas. Occurrence is linked to use and herbicides rank in the top five for agriculture. Nitrate exceeded the U.S. EPA drinking water standards for shallow wells in agricultural areas in about 20 percent of the samples taken. Nationally, at least one pesticide was found in about 94 percent of the water samples taken and in about 55 percent of the shallow wells sampled in agricultural and urban areas.

According to the study, reducing chemical use and improving disposal practices can help reduce contaminant concentrations in both urban and agricultural areas. More information about chemical use, much of which is unavailable for urban areas, is critical to linking contaminants to their sources.

However, new pesticides, VOC's and other synthetic chemicals are approved for agricultural and urban use every year. USGS has expanded its laboratory to analyze these emerging contaminants and improve testing methods.

The NAWQA plans to reassess 42 of the 51 areas studied from 2002 through 2012, to determine trends at the many monitoring sites and build upon earlier assessments.

Copies of the report, *Nation's Streams and Aquifers – Overview of Selected Findings, 1991-2001* is available at: <http://water.usgs.gov/pubs/circ/2004/1265>.



ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS

✓ **Monday, November 22, 12 noon, Room 205, Matthew J. Ryan Building – Environmental Issues Forum.** Tom Fidler, Deputy Secretary for Air, Recycling and Radiation Protection at the Pennsylvania Department of Environmental Protection (DEP) and Chief of DEP's Land Recycling and Cleanup Program will discuss the state's Brownfields program.

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

Visit our website (<http://jcc.legis.state.pa.us>) or check future editions of the *Environmental Synopsis* for upcoming events.

COMMITTEE CHRONICLES . . .

REVIEW OF SOME MEMORABLE COMMITTEE EVENTS



Hutchinson engages in some informal conversation with Shaw executives after the meeting.

At right, Shaw Vice-president for Science and Technology Dave Enegeess (right, back to camera) describes some of Shaw's creative solutions to environmental clean-ups to (l. to r.) committee member Rep. Tom Petrone (D-Allegheny), committee executive director Craig Brooks and chairman Hutchinson.

Earlier this year, the Joint Committee traveled to Monroeville to meet with officials from Shaw Environmental & Infrastructure, Inc. Shaw Environmental is one of the nation's largest full-service contractors, providing solutions to environmental and infrastructure projects worldwide for both government and private sector clients. Topics discussed during the meeting included mercury pollution and remediation, brownfields, technology advances and the company's project experience in Pennsylvania.

In the photo at left, committee chairman Rep. Scott



And at left, meeting attendees pose for a group photo at the end of the day.

I also wanted to take a few moments to mention some other events of interest that will benefit Pennsylvania's environment. One of the keys to improving our environment is continuing education about it. Pennsylvania's Department of Environmental Protection (DEP) has recently announced the opening of its 2005 Environmental Education Grants Program. The goal of the program is to increase environmental literacy.



The program is open to schools, universities, non-profits and county conservation districts. Projects can range from hands-on lessons for students, to training programs for teachers to ecological education for every day citizens. The program provides mini-grants of \$1,500 as well as grants of up to \$20,000.

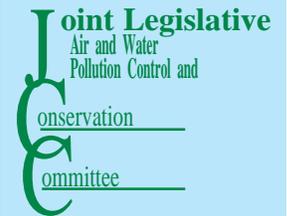
Topics to be covered in K-12 academic programs include watersheds and wetlands, environmental health, agriculture and society, threatened, endangered and extinct species, and humans and the environment. Other community issues include sustainable energy sources, alternative transportation fuels, air quality issues and watersheds and wetlands.

Pre-application letters must be postmarked by December 17. Visit DEP's website at www.dep.state.pa.us and use the keyword "EE Grants" to obtain more information or download an application. Or call DEP at 717-772-1828 for an application manual.

The Professional Recyclers of Pennsylvania (PROP) has announced the start-up of its online certification program to allow recycling and solid waste officials to receive professional training where they work rather than having to travel to an educational institution for training. This will help promote recycling efforts across the state, and save energy, travel time and expenses.

To register, visit the PROP website at www.proprecycles.org. The program is a partnership of PROP, DEP and Penn State Altoona.

Also, congratulations to PROP for being named the Outstanding Recycling Organization of the Year by the National Recycling Coalition at its recent annual congress. PROP was singled out for its efforts in advancing Pennsylvania's recycling and composting industries through education, legislative advocacy and outreach.



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The "Outstanding Recycling Organization of the Year" award recently presented to the Professional Recyclers of Pennsylvania (PROP)