PENNSYLVANIA GENERAL ASSEMBLY

JOINT LEGISLATIVE AIR AND WATER POLLUTION CONTROL AND CONSERVATION COMMITTEE

ANNUAL REPORT

2010

February, 2011

COMMONWEALTH OF PENNSYLVANIA

REPLY TO; HOUSE OF REPRESENTATIVES PO BOX 202254 HARRISBURG, PA 17120-2254

REPRESENTATIVE SCOTT E. HUTCHINSON CHAIRMAN



OFFICE: ROOM 408 FINANCE BUILDING HARRISBURG, PA 717-787-7570 717-772-3836 FAX

CRAIG D. BROOKS EXECUTIVE DIRECTOR

Joint Legislative Air and Water Pollution Control and Conservation Committee

TO: All Members of the General Assembly

FROM: Representative Scott E. Hutchinson, Chairman

Senator Raphael J. Musto, Vice Chairman

SUBJECT: 2010 Annual Report

DATE: February, 2011

"An investment in knowledge pays the best interest." Benjamin Franklin, Founding Father

The Joint Legislative Air and Water Pollution Control and Conservation Committee (Committee) is a legislative service agency located within a brief walk of the State Capitol Building and the Rachel Carson State Office Building, where the Pennsylvania Department of Environmental Protection and the Pennsylvania Department of Conservation and Natural Resources are headquartered. Our purpose as a legislative service agency is to conduct high-quality, independent research on environmental stewardship and, based on that research, to provide innovative, practical recommendations to the Pennsylvania General Assembly.

The value of a legislative service agency that can be counted on for ideas and information free of agendas has never been greater. In the highly polarized world of environmental stewardship, science has often become a target of widespread distortions. The Committee plays an important role in informing the General Assembly on environmental issues and bringing the best-available science into discussions and debates of Pennsylvania environmental policy. The goal of the Committee's research is to address misperceptions and counter misinformation.

Good decision making involves weighing the best available information with the values of the decision-makers and those affected by the decisions. By providing unbiased, factual information to the General Assembly on all aspects of environmental issues, the Committee has been an influential and trusted source for information and analysis for all of its 40-plus years.

Throughout 2010, the Committee worked on issues spanning the environmental spectrum, from natural gas exploration and water quality, to issues impacting Pennsylvania's forests, anthracite industry and pollution prevention. This report summarizes the results and findings of the Committee's hearings and investigations, highlights legislative accomplishments that flow from the information it has developed and demonstrates the Committee's commitment to working with the Legislature, other key state and local governmental agencies, and stakeholders during the past year. We look forward to continuing to serve as a shared resource for the General Assembly, to help frame issues, to inform the debate, and to provide useful options for resolution of the issues.

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Joint Legislative Air and Water Pollution Control and Conservation Committee

COMMITTEE MEMBERS

2009-2010 Session

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Rep. Julie Harhart

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THE JOINT LEGISLATIVE AIR AND WATER POLLUTION CONTROL AND CONSERVATION COMMITTEE

In 1967, legislation (Act 448, P.L. 1022) was enacted creating the Joint Legislative Air and Water Pollution Control and Conservation Committee. The Committee consists of 18 members of the General Assembly. Nine members are appointed by the President Pro Tempore of the Senate, five from the majority party and four from the minority party. The Speaker of the House of Representatives also appoints nine members, five from the majority party and four from the minority party.

The Committee's powers and duties according to Act 448 include:

- Conducting continuing studies of air and water pollution laws and recommending needed changes to the General Assembly.
- Conducting continuing studies of the enforcement of air and water pollution laws, and in conjunction with such studies making necessary trips to various sections of the Commonwealth to hold public hearings.
- Conducting continuing studies of mining practices, mining laws, and reclamation of mined lands.
- Holding public hearings and receiving comments regarding any or all of the above subjects of study.

Since its creation, the Committee has been instrumental in the development of Pennsylvania's environmental laws and policies. The Committee staff is available at all times to assist members of the General Assembly with environmental and conservation issues. The Committee's files and library are extensive. Also, the staff has access to information from the Department of Environmental Protection and the Department of Conservation and Natural Resources, other state and federal agencies, private industry, and trade associations.

Marcellus Shale Rush Reshapes Pennsylvania

There is no larger polarizing environmental issue in the Commonwealth than drilling for natural gas in the Marcellus Shale basin. The Marcellus is the largest shale "play" in the U.S. and second largest in the world. It extends through two-thirds of Pennsylvania. By some estimates, the potential recoverable gas in the Marcellus basin is between 400 trillion and 500 trillion cubic feet of gas, a 20-plus year supply of natural gas at current rates of usage. The natural gas trapped within the Marcellus provides a potential "bridge fuel" on the path to a renewable, carbon-free economy.

Since 2008 when commercial operations began in scale, shale gas has helped reduce consumer gas prices; it has offered economic benefits such as job development and an opportunity to bring the U.S. closer to energy independence; and, it has presented an opportunity to generate electricity with a lower carbon fuel. But there are several controversies over environmental impacts. Opponents question whether the economic benefits are worth the risk they say the drilling poses.

Pennsylvania has entered a national debate on the safety standards of a specialized form of natural gas drilling that pumps chemicals and water into the ground to release natural gas trapped thousands of feet below. The debate centers on the controversial technique known as "hydraulic fracturing," or "fracking," in which companies drill down, then horizontally to reach natural gas deposits trapped in a shale formation. A mixture of water, chemicals and sand then is pumped into the shale with great force, breaking up the rock and releasing the gas. The technology allows drillers to extract previously inaccessible natural gas deposits and has opened huge tracts of Pennsylvania's landscape to drilling.

Significant concern has been raised on such issues as groundwater and surface water contamination, destabilization of the landscape, and treatment of water used in the fracking process. Gas companies vigorously deny that drilling for shale gas is unsafe; saying the technique is safe and poses little risk to drinking water or the environment. The industry blames pollution incidents as examples of bad practice, rather than an inherently risky technique.

While both sides can debate the merits of their views, future development of the Marcellus Shale rests largely with Pennsylvania's General Assembly. In 2010, the Committee held several events regarding the exploration and drilling for natural gas in the Marcellus Shale in Pennsylvania.

On March 10, 2010 the Committee held a special roundtable meeting in Harrisburg, Dauphin County to learn more about the benefits and costs of Marcellus Shale natural gas extraction. Among those speaking at the meeting were Mr. Thomas Murphy of the Marcellus Education Team of the Penn State Cooperative Extension Service, who discussed in detail resource development, community impacts, research implications and collaborative opportunities related to Marcellus Shale. Mr. John Hines, Pennsylvania Department of Environmental Protection (DEP) Deputy Secretary for Water Management, and Mr. J. Scott Roberts, DEP Deputy Secretary for Mineral Resources Management, provided an overview of Marcellus Shale issues and the state's regulatory programs. Mr. Bryan Swistock, a Water Resource Specialist from Penn State, offered valuable information about water quality, groundwater monitoring and brine storage and disposal. The Pennsylvania Fish and Boat Commission's Executive Director Mr. John Arway and Director of the Bureau of Policy, Planning and Communications Mr. Tim Schaeffer offered some comments on the Commission's role and interest in the Marcellus Shale play. Also present to help answer questions and provide input during the discussion were the Marcellus Shale Coalition's President and Executive Director Ms. Kathryn Klaber, as well as Mr. Steve Rhoades with East Resources, Incorporated.

On March 18, 2010 the Committee, its Chairman and a number of other legislators visited the Pennsylvania Brine and Treatment plant in Franklin, Pennsylvania to learn more about treatment of the water from the Marcellus Shale gas drilling sites around Pennsylvania. The plant, which has been in operation since 1985, now estimates that 30 percent of its business comes from Marcellus Shale drilling.

The facility is permitted to pump more than 200,000 gallons of treated water into the Allegheny River daily, nearly 1.8 billion gallons annually. It has applied to increase its output to 300,000 gallons a day in order to handle recent and future increases in brine production.

On March 22, 2010 the Committee held an Environmental Issues Forum with Mr. Thomas Murphy, Extension Educator with the Marcellus Education Team of the Penn State Cooperative Extension Service. Mr. Murphy discussed resource development and community impacts of Marcellus Shale natural gas exploration and drilling. He also discussed research implications and collaborative opportunities related to key Marcellus Shale issues.

On August 27, 2010 the Committee traveled to Towanda, Bradford County at the invitation of Chesapeake Energy, one of the companies involved in drilling for natural gas in the Marcellus Shale formation in Pennsylvania, to learn more about natural gas exploration in the formation. The visit, one of several set up for legislators and their staffs, included a presentation by Chesapeake Energy on its drilling operations, on the Marcellus Shale formation and its properties, and on the drilling process itself. There was also discussion on the economic and environmental impacts of drilling. Following the presenta-

tion, the group visited one of Chesapeake's nearby drilling rigs to get an up-close look at the drilling infrastructure, the geographic and environmental footprint of a drilling site, and rig operations.

In addition to its events, Committee staff attended a number of Marcellus Shale related events during 2010. For example, on January 29, 2010, Committee staff attended "The Science of the Marcellus Shale," conference sponsored by the Susquehanna Heartland Coalition for Environmental Studies. The conference was held at Williamsport, Pennsylvania's Lycoming College. Committee staff also attended a number of legislative meetings and hearings on Marcellus Shale issues.

The Committee anticipates that the discussion over Marcellus Shale will be an ongoing one. In 2011, the Committee will continue to address the environmental and economic concerns facing natural gas exploration and drilling in Pennsylvania.

FOREST RESOURCE MANAGEMENT

Legislative Forestry Task Force

Pennsylvania's distinctive landscape is a testament to the resiliency of the land and the conservation ethic of its people. The remarkable return of the Commonwealth's forests following an early history of forest clearing and intensive logging offers an unprecedented opportunity to secure a more sustainable future.

Today there is more forest cover between the New Jersey and Ohio borders than at any time in the past two centuries. The 16 million acres of trees, waters, and wetlands that blanket the state provide areas for recreation, hunting, and other traditional uses; wood and other forest products; clean and abundant water; a continental-scale habitat corridor; and a globally important source of renewable energy and carbon storage – key factors in slowing the rate of climate change.

Because of the importance of the forest industry to the economy and its rural communities, the Legislative Forestry Task Force and Advisory Committee was established in 1994, pursuant to House Resolution 263, Printer's Number 4110. The resolution itself was introduced after three statewide public hearings held by the Committee in 1993. The formation of a Task Force and Advisory Committee was a direct recommendation of the Committee.

For almost two decades, the Forestry Task Force has been composed of four members of the Pennsylvania General Assembly: two members of the Senate and two members of the House of Representatives. A special collection of advocates, the Advisory Committee plays a pivotal role in guiding the Task Force into the future. Advisory

Committee members hail from a range of backgrounds, including the Pennsylvania Department of Conservation and Natural Resources (DCNR), education, the forest products industry, the Pennsylvania Game Commission and others. They share the common goal of helping the Forestry Task Force advance as a center for forestry excellence.

Since its inception in 1994, the Forestry Task Force has continued to work under the leadership of the Committee. Thus, the Committee, after careful consideration and consultation with the Task Force and Advisory Committee, has the flexibility and discretion in choosing future topics for discussion.

On March 25, 2010 the Task Force met to discuss the impact of the development of the Marcellus Shale reserve and its impact on Pennsylvania's state forests. Mr. Dan Devlin, Director of DCNR's Bureau of Forestry, spoke about how the department manages and regulates the exploration and production of natural gas within the Marcellus Shale basin on state land. Mr. John Levavasseur, Chairman of the PA Sustainable Forestry Initiative Implementation Committee, provided a review of the benefits of using trained harvesters in land clearing and right-of-way development. Mr. Blaine Puller, a retired Forest Manager with Kane Hardwood, spoke on state and local restrictions on forestry activities and their impact on working forests.

On July 22, 2010 the Task Force met to discuss the U.S. Environmental Protection Agency's (EPA) proposed regulations regarding the Boiler Maximum Achievable Control Technology (Boiler MACT) rule. The Task Force heard testimony on how the Boiler MACT regulatory proposal has the potential to cost the forest products industry more than \$6 billion in capital expenditures and hundreds of millions more in annual costs by creating new emission limitations for industrial, commercial, and institutional boilers and process heaters. Dr. Fred Osman, a professional engineer and owner of Osman Environmental Solutions, an environmental consulting firm, provided a review of recent EPA regulatory proposals and their effects on the forest products industry. Mr. Craig Timm, Public Relations Manager for Domtar Industries, reviewed air compliance issues facing Domtar's pulp and paper mill located in Johnsonburg, Pennsylvania (Elk County). Mr. Carl Webb, plant engineering manager for Wood-Mode, a Snyder County-based manufacturer of custom cabinetry, addressed the challenges complying with Boiler MACT would have not only on Wood-Mode; but also its impact on the woodworking industry. The meeting concluded with a presentation by Mr. Rhett McLaren, an environmental compliance specialist with Penn State University. Mr. McLaren outlined a number of environmental issues facing Penn State's power plants and the costs involved with compliance.

Citing the potential for massive job losses and estimated compliance costs in the billions, with the guidance of the Committee, House Resolution 879, Printer's Number 4081, was introduced by Forestry Task Force member Representative Gary Haluska. The resolution memorializes the EPA to revise the proposed regulations to: "Use a method to

set emissions standards that is based on what real-world best performing units can achieve...and that reflects the variability that occurs in real-world, best performing boilers." Task Force members Representatives Scott Hutchinson and Kathy Rapp were cosponsors of House Resolution 879. The resolution was adopted unanimously by the House of Representatives on September 27, 2010.

On December 16, 2010 the Task Force met to discuss the role of woody biomass in alternative energy production. Mr. Keith Craig, Executive Director of the Hardwoods Development Council (HDC), provided a review of the 2008 report of the Blue Ribbon Task Force of the HDC on the low-use wood resource. Mr. John Karakash, a registered forester and the founder and manager of the Resource Professionals Group, spoke on the basics of woody biomass and its role in small and community scale thermal heat projects in Pennsylvania. Mr. John Burrows, President and CEO of Energex Corporation, gave a presentation on the environmental and economic benefits of using wood pellets as an alternative energy source. Energex Corporation is located in Mifflintown, Pennsylvania.

In addition to the Legislative Task Force's agenda of issues, the Committee's September Environmental Issues Forum featured a presentation entitled "Climate Change Policy and Forests – Possibilities and Challenges." The guest speaker was Mr. Matt Smith, Vice-President of Forest Operations for the Finite Carbon Corporation, a forest carbon development company working with landowners in creating and monetizing carbon credits and carbon offsets.

Mr. Smith reviewed the development of climate change programs in the U.S. including the use of offsets in cap and trade programs, how forests work as offsets, recent policy shifts in climate policy, and an outlook on the future of carbon caps and the use of forest offsets to meet carbon reduction goals.

By improving the General Assembly's ability to understand the forest environment, the Forestry Task Force plays a role in shaping effective management and policy decisions. The Committee and its Legislative Forestry Task Force will continue to examine forestry issues in 2011 and additional recommendations will be forthcoming. For more information concerning the Forestry Task Force, please contact the Committee office.

ENERGY

The Anthracite Coal Industry

Anthracite is a hard coal containing a high percentage of fixed carbon and a low percentage of volatile matter, such as sulfur and ash. With these desirable qualities, anthracite coal is ranked higher than other, more commonly used coals like bituminous and lignite because it has more than twice the energy content of these other coals. Thus, it provides a longer burning potential and is, accordingly, a higher energy fuel.

Almost all of the U.S. supply of anthracite coal is located in Northeastern Pennsylvania. By far the greatest concentrations of anthracite reserves are in five Pennsylvania counties, specifically Lackawanna, Luzerne, Carbon, Northumberland and Schuylkill. Pennsylvania has about seven billion tons of minable anthracite coal reserves.

But like many other industries, the anthracite industry has not been immune to a downturn. The primary reason the industry has experienced a decline is a general lack of demand for anthracite coal on the national and international markets. Most of the original markets for anthracite were relinquished long ago to natural gas, fuel oil, and other coals, such as bituminous and lignite. Anthracite maintains a small share of a niche market, consisting primarily of coal-fired home-heating units.

In 2005, the Committee held a public hearing to determine why there was a shortage of anthracite coal as homeowners scrambled to find anthracite for heating. The culprit was a lack of production. Most coal for home heating comes from underground mines, and the number of working anthracite mines was steadily dwindling. Operators said the federal Mine Safety and Health Administration had made it difficult if not impossible for them to stay in business. The conflict between the mine operators and the federal mining agency has its roots in the uniqueness of underground anthracite mining. The federal law dealing with mine safety is geared towards bituminous coal.

Because Pennsylvania's anthracite coal continues to be an important economic and environmental asset, the Committee scheduled a two-day review of the anthracite industry in 2010. On April 6, 2010 the Committee toured four coal-related sites in Schuylkill County. The tour included a planned passive treatment system for acid mine drainage, an underground coal mine, a reclamation project and a surface coal mining operation.

On April 7, 2010 the Committee traveled to Mahanoy City, Pennsylvania to hold a public hearing on the future of anthracite coal mining in a competitive and changing energy market. The hearing featured testimony from several individuals including Mr. J. Scott Roberts, DEP's Deputy Secretary for Mineral Resources; Mr. Duane Feagley, Executive Director of the Pennsylvania Anthracite Council; Mr. Brian Rich, President of Reading Anthracite; and Mr. Dan Blaschak, Vice-President of Blaschak Coal Corporation. Also testifying was Mr. Jeff McNelly, Executive Director of the Anthracite Region Independent Power Producers Association.

Witnesses discussed the future of anthracite coal mining, and addressed industry concerns in order to ensure coal remains competitive in today's changing energy market. For Pennsylvania anthracite to compete in a global market, several factors need to be considered. Testimony centered around current coal and waste use, supply, and demand

in Pennsylvania; overall changes in the anthracite industry during the past decade; economic and environmental issues still facing the industry; bonding and reclamation; and the industry-wide impacts of the Federal Mine Safety Act.

Transcripts of both the 2005 and 2010 public hearings and additional information concerning coal mining issues may be obtained from the Committee office.

MINE RECLAMATION

Coal Combustion Residue

Since its creation in 1967, the Committee has been involved with energy issues, specifically the Commonwealth's coal resources. One of the duties outlined in the Committee's enabling legislation was to conduct continuing studies of mining practices, mining laws, and reclamation of mined land. The Committee continued its interest in the reclamation of mined lands with the issuance of its February, 2004 report, "A Proposed Moratorium on the Use of Fly Ash in Mine Reclamation Projects."

The residues left after coal is burned to generate power – coal combustion residue (CCR) – consist of noncombustible coal matter and material trapped by pollution control devices. Most of this material is disposed of in landfills, but it is increasingly being used in mine reclamation.

After reviewing DEP's reclamation program and testimony from a July, 2003 public hearing on the issue, the Committee's 2004 report concluded that "putting CCR in coal mines as part of the reclamation process is a viable management option as long as (1) CCR placement is properly planned and is carried out in a manner that avoids significant adverse environmental and health impacts, and (2) the regulatory process for issuing permits includes clear provisions for public involvement.

This issue is once again a topic of discussion. On May 4, 2010 EPA proposed for the first time that the federal government, rather than state governments, should regulate coal ash because of the toxic chemicals it contains. The rupture of a dam holding a slurry of coal ash in Kingston, Tennessee, in December 2008 focused national attention on disposal methods. The big question is whether the federal agency will assume more authority in regulating the byproducts of burned coal, essentially designating it as a hazardous waste.

The Committee has been an active participant in promoting the safe disposal of CCR since 2003 and will continue to support and assist the General Assembly in monitoring new federal rules and regulations concerning CCR disposal.

Copies of the Committee's 2004 report, "A Proposed Moratorium on the Use of Fly Ash in Mine Reclamation Projects", are available by calling the Committee office or on the Committee website at http://jcc.legis.state.pa.us.

POLLUTION PREVENTION

Waste Tires

It has been 14 years since Pennsylvania's "Waste Tire Recycling Law" (Act 190 of 1996) was enacted. The Committee took an active role in developing the state's waste tire program and a follow-up measure to expand the original law (Act 111 of 2002). Since the legislation's enactment, the Committee has held a number of meetings on waste tire issues.

At the Committee's February 8, 2010 Environmental Issues Forum, Mr. George Soukas and Mr. John Aten, President and Vice-President of Sales respectively for Regupol America of Lebanon, Pennsylvania, gave an overview of the advances and development of the scrap tire and rubber recycling markets. Regupol's products include health and fitness flooring, flooring underlayment, sound dampening products, and commercial rubber flooring.

The Committee's efforts in the past have helped raise awareness and visibility of the state's waste tire market development programs. The Committee is continuing its discussions and work on waste tire recycling issues in 2011.

Mandatory Solid Waste Collection

Across Pennsylvania, communities and rural areas have chronic illegal dump sites, where everything from trash bags to refrigerators to tires is discarded. Most commonly, these items are dumped along roadsides, in wooded areas and even on public lands such as state parks and forests. Illegal dumps cost Pennsylvania taxpayers millions of dollars each year.

On April 19, 2010, the Committee's Environmental Issues Forum featured Ms. Shannon Reiter, President of PA CleanWays, and Mr. Jonathan Johnson, Senior Policy Analyst with the Center for Rural Pennsylvania (Center). They discussed PA Clean-Ways' ongoing illegal dumping survey taken in 37 counties of the Commonwealth and the analysis of the surveys' findings by the Center. They also discussed plans in Pennsylvania for the Great American Cleanup.

The Committee is aware of the economic and environmental challenges of illegal dumping and littering and has met several times over the past few years with representa-

tives of PA CleanWays and other interested stakeholders concerning the development of practical solutions. The Committee will continue to work to improve realization and understanding of the complexities of illegal dumping and looks forward to working with organizations like PA CleanWays and their partners in 2011.

Disposing of Electronics Safely and Responsibly

A growing number of states are trying to reduce the rising tide of junked televisions, computers, and other electronics that have become one of the nation's fastest growing waste streams. Nineteen states have passed laws requiring the recycling of old electronics, which contain both precious metals and toxic pollutants. The National Safety Council projects nearly 250 million computers will become obsolete before 2016, and mobile cell phones are currently discarded at a rate of 130 million per year. Depending on the disposal method, lead, mercury, arsenic, cadmium, beryllium and brominated fire retardants leach either into the air or into landfills.

The Committee has been an active participant in discussions concerning e-waste in Pennsylvania. In 2008, the Committee released a report making recommendations on how Pennsylvania should handle e-waste recycling. The report, "E-Waste Recycling Programs and Policy Options", recommended that the Commonwealth employ a manufacturer-responsible system that would combine the best features of existing systems.

Pennsylvania's new electronic waste law (Act 108 of 2010) mandates that electronic manufacturers fund and manage electronic waste recycling programs in the state. The law also bans electronics from Pennsylvania landfills and requires retailers to provide customers with information about recycling the devices they purchase.

In 2011, the Committee will continue to address the serious environmental and economic challenges facing electronic waste. The Committee's report, "E-Waste Recycling Programs and Policy Options" is available by calling the Committee office, or on the Committee's website at http://jcc.legis.state.pa.us.

Community Service Project

Over the past several years, the Committee has partnered with the Pennsylvania Recycling Markets Center (RMC) on a myriad of projects including Economic Development Forums and the Recycling Markets Development Expo. In 2010, in a unique cooperative venture with the RMC, the Committee staff traveled to Tilden Township (Berks County) to volunteer as part of the Emmy-winning ABC-TV series *Extreme Makeover: Home Edition*.

The Extreme Makeover cast, the Home Builders Association of Berks County and an army of volunteers built a home for a deserving family. With the RMC's management team, over 20 companies were coordinated to donate recycled content building products and materials management services to the project, while over 300 organizations participated in the entire build. The RMC, along with Committee staff, provided support in managing the debris generated during the project – which involved 40,000 spectators and 2,500 volunteers – in order to maximize reclaiming and recycling of waste. The RMC had to develop and oversee an integrated materials management solution that covered the demolition, construction and site-support areas. The Committee staff worked with the RMC staff to help carry out the materials management plan.

RMC opened on July 1, 2005 and is part of DEP's initiative to encourage growth of the state's recycling industry. For more information on RMC, visit its website at www.parmc.org.

FUTURE COMMITTEE ACTIVITIES

The Committee will continually identify key environmental issues for the General Assembly's attention. Activities range from information sharing and discussion to round-tables or public hearings. As 2010 comes to a close, Committee members have looked ahead to identify issues where they might request Committee attention (or in some cases, additional Committee attention) in 2011. While the list is not intended to be comprehensive, it is illustrative of the range of issues that could be addressed by the Committee. Good or bad, these are environmental issues that are most likely to reverberate in the world of environmental news in 2011 and beyond.

A big target for 2011 and 2012 is likely to be Marcellus Shale. For many Pennsylvania residents, the words "Marcellus Shale" had little meaning at the start of 2010. Much has happened since then, though, as the Marcellus Shale natural gas boom has dominated the headlines and brought tens of millions of dollars of new money into the state's economy. It has been estimated that Pennsylvania could become the site of an additional 60,000 Marcellus natural gas wells in the next 20 years.

In 2008, when the enormity of the region's natural gas reserves was just being understood, the natural gas industry swarmed the Northern Tier, eager to get a piece of the Marcellus. In 2011, expect to see more natural gas drilling in Pennsylvania as companies move on properties to firm up leases and pipeline rights-of-way throughout the state. On the legislative front, natural gas well drilling is expected to be a big point of discussion during the new legislative session. The Committee has been monitoring the environmental effects of existing developments for over two years, including impacts to forests, freshwater resources and state recreational areas.

Expect also EPA changing the rules for how coal-burning power plants store coal ash in 2011. The big question is whether the federal agency will assume more authority in regulating the byproducts of burned coal, essentially designating it as hazardous waste. Over the course of 2011, the Committee will continue to examine issues related to the safe and beneficial use of the byproducts of burned coal, particularly those relating to the disposal of CCR.

Meanwhile, another possible future issue requiring attention is the Chesapeake Bay. Six states, including Pennsylvania, committed to reducing their output of wastewater pollutants as part of the EPA's Total Maximum Daily Load plan in September 2010. Each state was required to submit a Watershed Implementation Plan. Pennsylvania submitted a nearly 200-page plan detailing how it would reduce the amount of phosphorus, nitrogen and sediment that flows from its portion of the Chesapeake Bay watershed into the bay itself.

The plan includes commitments from municipal water treatment plants to upgrade their technologies and from farmers to use sediment retention best practices. It is an ambitious proposal that requires costly upgrades from municipalities and farmers, among other sectors.

The introduction of invasive species is another issue that will garner attention in 2011. The Committee's Forestry Task Force will continue to monitor forest issues including invasive species introductions such as the emerald ash borer (EAB) and the bark beetle. This duo has munched its way through millions of trees in recent years. Ash trees in Pennsylvania, planted to replace the native elms that Dutch elm disease wiped out decades ago, are now themselves threatened by the EAB. If not managed, the EAB threatens to devastate the ash species in North America, according to the Penn State Cooperative Extension.

Northern pines are under siege from bark beetles, with some stands potentially losing 50 to 80 percent of mature individuals. Fortunately, they have not shown up in 2010 in Pennsylvania, where traps were set to detect them, according to state entomology and forestry officials. In New Jersey, the story is much different. There, the pine beetle devoured up to 14,000 acres of pine trees in 2010.

On the national level, the oil spill in the Gulf of Mexico made history as the largest accidental oil spill ever, around 205 million gallons. And Congress failed to pass an energy bill as climate change continues to affect the nation and the world. That makes what is going on at the state level all the more important. The Committee looks forward to working closely with the General Assembly, other key governmental agencies and stakeholders on important environmental issues during 2011.

COMMITTEE ACTIVITIES

January 29, 2010 – Committee staff attended "The Science of the Marcellus Shale," conference sponsored by the Susquehanna River Heartland Coalition for Environmental Studies. The conference was held at Williamsport, Pennsylvania's Lycoming College.

February 8, 2009 – The first Environmental Issues Forum of 2010 featured Mr. George Soukas, President of Regupol America, and Mr. John Aten, Vice-President of Sales. Mr. Soukas and Mr. Aten provided an update on scrap tire and rubber recycling markets. Regupol America is a manufacturer of recycled rubber products with both a national and international sales presence and customer relationships in more than 80 countries.

February 8 – 9, 2010 – Committee staff attended the 2010 Pennsylvania Prescribed Fire Conference at the Wildwood Conference Center in Harrisburg, Pennsylvania. The conference was sponsored by the Pennsylvania Prescribed Fire Council.

March 10, 2009 – In its continuing efforts to promote an understanding of the issues surrounding the Marcellus Shale natural gas industry, the Committee sponsored a roundtable discussion and input session. The purpose of the meeting was to continue discussion among various stakeholders to assess current challenges and discuss future direction for natural gas exploration in Pennsylvania. Among those speaking at the meeting were Mr. John Hines, DEP's Deputy Secretary for Water Management, who discussed the agency's role in regulating gas development, and others.

March 18, 2010 – Committee members and staff toured the Pennsylvania Brine and Treatment Plant in Franklin, Pennsylvania. The plant specializes in the handling and treatment of brine and frac fluids produced by natural gas and oil wells. Plant staff conducted the tour and provided much valuable information.

March 22, 2010 – The March Environmental Issues Forum featured a presentation by Mr. Thomas Murphy, Extension Educator with the Marcellus Education Team of the Penn State Cooperative Extension Service. Mr. Murphy discussed resource development and community impacts of Marcellus Shale exploration and drilling.

March 25, 2010 – The Legislative Forestry Task Force and Advisory Committee met in State College, Pennsylvania to examine the environmental and economic development of the Marcellus Shale reserve and its impact on Pennsylvania's state forests.

April 6, 2010 – As a follow-up to the Committee's June 2005 public hearing on anthracite coal issues, the Committee scheduled a two-day program on the anthracite industry. As part of the program, the Committee traveled to Schuylkill County for a tour of coalrelated sites. Tour sites included a planned passive treatment system for acid mine drai-

nage, an underground coal mine, a reclamation project and a surface coal mining operation.

- **April 7, 2010** The Committee also held a public hearing in Mahanoy City, Pennsylvania to discuss the future of anthracite coal mining in a competitive and changing energy market. The purpose of the hearing was to promote the exchange of information, techniques, and experiences of the Pennsylvania anthracite coal industry.
- **April 19, 2010** The Earth Day Environmental Issues Forum featured Ms. Shannon Reiter, PA CleanWays President, and Mr. Jonathan Johnson, Senior Policy Analyst with the Center for Rural PA, discussing PA CleanWays' ongoing illegal dumping surveys of Pennsylvania and the analysis of the surveys' finds by the Center. They also discussed plans in Pennsylvania for the Great American Cleanup.
- **April 20, 2010** Committee staff attended the Pennsylvania State Association of Township Supervisor's Annual Educational Conference & Trade Show in Hershey, Pennsylvania. Workshop sessions included: Community and Economic Impact of Marcellus Shale Exploration and Development.
- May 24, 2010 The May Environmental Issues Forum featured Mr. Patrick Starr, Senior Vice-President of the Pennsylvania Environmental Council's (PEC) Southeast Region. Mr. Starr was joined by PEC President and CEO Mr. Don Welsh and by Mr. Todd Ingves, Director of Business Programs for The Board of Pensions of the Presbyterian Church, one of the companies participating in the Green Business Program. The presenters provided an overview of the program which features a commitment made by 100 companies to change their daily business practices to reduce impacts on the environment.
- **June 21, 2010** The topic of the Committee's June Environmental Issues Forum was green roofs. The guest speaker was Dr. Robert Berghage, Director of the Penn State Center for Green Roof Research, and an associate professor at Penn State's School of Horticulture. Dr. Berghage spoke of the benefits of green roof technology, including stormwater remediation, energy savings, heat reduction, improvement of biodiversity and habitat and aesthetics.
- **July 22, 2010** The Legislative Forestry Task Force and Advisory Committee met in State College, Pennsylvania to examine issues related to the EPA's Boiler Maximum Achievable Control Technology rule and its effect on the forest products industry.
- **July 29 Aug 5** In a cooperative venture with the PA Recycling Markets Center (RMC), the Committee staff traveled to Tilden Township (Berks County) to volunteer as part of ABC's "Extreme Makeover: Home Edition" to help construct a new home for a deserving family. The Committee staff worked with the RMC staff to help carry out the materials management plan.

August 27, 2010 – The Committee traveled to Towanda, Bradford County at the invitation of Chesapeake Energy, one of the companies involved in drilling for natural gas in the Marcellus Shale formation in Pennsylvania, to learn more about natural gas exploration in the formation.

September 27, 2010 – The September Environmental Issues Forum featured a presentation by Mr. Matt Smith, Vice-President for Forest Operations for Finite Carbon, a Pennsylvania-based forest carbon development company. Mr. Smith spoke about the carbon market and how to create and monetize carbon credits and carbon offsets.

December 16, 2010 – The Legislative Forestry Task Force and Advisory Committee met in State College, Pennsylvania to discuss the utilization of low-use wood. Nearly 500 million tons of low-use wood, poor quality or damaged wood are estimated to exist in Pennsylvania's forests.

COMMITTEE LIBRARY

The Committee maintains an extensive reference library of environmental materials. A valuable resource on environmental protection, the library currently holds over 1,200 publications, many of which are unavailable elsewhere. The library holds materials that Committee staff uses for their research, as well as material useful to the public.

COMMITTEE WEBSITE

The Committee also maintains a worldwide website. On this site you can access the Committee's newsletter, the **Environmental Synopsis**, and view archived issues as well. The website also contains information regarding current Committee activities, reports, and the Environmental Issues Forums.

The Committee hopes you will use the website to not only find information, but also to contact the Committee and utilize our resources. Your comments about the information posted, as well as suggestions to improve the site are welcomed.

We invite you to learn more about the Committee and the issues we are following by visiting the Committee's website: http://jcc.legis.state.pa.us.

ENVIRONMENTAL ISSUES FORUMS

Over the past year, the Committee has worked to connect its environmental research with public audiences. This is reflected in a number of efforts. One way in which the Committee accomplishes this is through its Environmental Issues Forums. The forums are public informational sessions at which prominent guest speakers present information on topics of interest related to the Committee's mission.

Forum programs are open to the public and are intended to reach a wide audience. Participants in the forums include policy makers, scholars and business and community leaders. Forums are as diverse as the speakers themselves, and include everything from the benefits of green roof technology to carbon markets.

The forums are held on legislative session days and are normally conducted once a month in those months in which the General Assembly is in voting session. The exchanges that occur in these gatherings play an important role in maintaining the Committee's reputation as a crucible in which ideas are tested.

Please check the Committee's website for upcoming forums, or contact the Committee office for information.

COMMITTEE NEWSLETTER

Environmental Synopsis

For more than 30 years, the Committee has published the **Environmental Synopsis**, which richly deserves it reputation as a preeminent environmental newsletter in Pennsylvania. The newsletter covers state, national, and international environmental issues. Articles covered in 2010 included a diversity of topics ranging from reusable grocery bags to climate change.

The <u>Environmental Synopsis</u> is distributed to all members of the General Assembly and to more than 400 other recipients including business and industry, environmental organizations, government agencies, colleges and universities and citizens.

Over the years, the **Environmental Synopsis** has been expanded significantly to include photographs and research information, and readers have expressed gratification for the quality and content of each monthly issue. The **Environmental Synopsis** is part of the Committee's ongoing effort to provide its members with timely information on upcoming events, reports on events that recently concluded, and other interesting features. Information in the synopsis does not necessarily reflect the opinions or policies of the Committee or the Pennsylvania General Assembly.

The **Environmental Synopsis** is available in hard copy or in an electronic version, as well as on the Committee's website. Please contact the Committee office if you wish to be included on either the hard copy or electronic mailing list. Back issues are available upon request.

COMMITTEE REPORTS

The Committee has a library or more than 65 reports its staff has researched and prepared on a variety of environmental issues. They include:

- 1. Comprehensive Review of the Water Pollution Enforcement Program, 1970.
- 2. Comprehensive Review of Municipal Solid Waste Management, 1975.
- 3. Integrated Flood Management: A Pennsylvania Perspective, 1981.
- 4. Public Utility Commission Regulation of Water Supply Systems, 1982.
- 5. Research Monograph: Safe Drinking Water Act, April, 1983.
- 6. Coal Reclamation Report: Part I. Remining Previously Affected Areas, 1984.
- 7. Coal Reclamation Report: Part II. General Reclamation Program, 1984.
- 8. Low-Level Radioactive Waste Disposal: A Special Briefing on the Proposed Appalachian Compact, 1985.
- 9. Research Monograph: Pennsylvania Hazardous Waste Treatment and Disposal Facility Siting Criteria, September/October, 1985.
- 10. House Resolution No. 6, Land Application of Sewage Sludge: Part I: Administrative Issues, 1986.
- 11. House Resolution No. 6, Land Application of Sewage Sludge: Part II: Technical Criteria, 1986.
- 12. Research Monograph: Protecting Water Quality With Well Construction And Location Standards, May/June, 1986.
- 13. Research Monograph: Resource Recovery: An Examination Of Current Technologies, Environmental Factors, And State Air Emission Standards, October, 1986.
- 14. Pennsylvania's Water and Sewerage Infrastructure Needs, 1987.
- 15. Research Monograph: The Safe Drinking Water Amendments of 1986, February/March, 1987.
- 16. Research Monograph: The State Role In The New Federal Superfund Program, May/June, 1987.

- 17. A Review of the Pennsylvania Oil and Gas Act, Act 223 of 1984, as amended, 1988.
- 18. Pennsylvania State Parks, 1989.
- 19. Watershed Protection and Senate Bill 1012 of the Session of 1989, 1990.
- 20. The Use and Regulation of Roadside Springs in Pennsylvania, 1990.
- 21. Research Monograph: Endangered Funds For Species of Special Concern: A Review Of Pennsylvania's Wild Resource Conservation Act, May, 1990.
- 22. Research Monograph: Urban Storm Water Management, May, 1991.
- 23. Septage Management and Disposal in Pennsylvania, July, 1991.
- 24. A Review of PENNVEST The Pennsylvania Infrastructure Investment Authority Program, 1991.
- 25. Water Resources Management in Pennsylvania, 1992.
- 26. 1991 Annual Report, January, 1992.
- 27. Research Monograph: The Recycling and Regulation of Used Oil, February, 1992.
- 28. The Use of Geothermal Heating and Cooling Systems in Pennsylvania, 1992.
- 29. Research Monograph: Using Employer Trip Reduction Programs to Improve Air Quality, December, 1992.
- 30. 1992 Annual Report, January, 1993.
- 31. Special Report on the 1993 Water Resources Management Conference, 1993.
- 32. Research Monograph: Recycling Residential Graywater for Other Uses, August, 1993.
- 33. Report on the hearings held on Forest Resources Management, 1994.
- 34. 1993 Annual Report, January, 1994.
- 35. Research Monograph: An Assessment of Unit Pricing for Municipal Solid Waste, September, 1994.
- 36. 1994 Annual Report, January, 1995.
- 37. Research Monograph: Entrance Fees: A Supplemental Resource for State Parks, April, 1995.
- 38. 1995 Annual Report, February, 1996.
- 39. 1996 Annual Report, February, 1997.
- 40. Forestry Issues For Pennsylvania: Report of the Forestry Task Force Pursuant to House Resolution 263, March, 1997.

- 41. Pennsylvania's Environment and the Future of Independent Power Producers, March, 1997.
- 42. 1997 Annual Report, February, 1998.
- 43. Pennsylvania's Heritage Parks Program, March, 1998.
- 44. Report of the Forestry Task Force Pursuant to Senate Resolution 29, January, 1999.
- 45. 1998 Annual Report, February, 1999.
- 46. Report on the Infiltration of Water into Sewage Treatment Systems Pursuant to House Resolution 376 of 1998, October, 1999.
- 47. 1999 Annual Report, February, 2000.
- 48. Report on Water Quality Credits and Trading Pursuant to House Resolution 361 of 2000, 2001.
- 49. 2000 Annual Report, March, 2001.
- 50. Report of the Forestry Task Force Pursuant to House Resolution 13 of 1999, June, 2001.
- 51. Report on Combined Sewer Overflows in Pennsylvania, November, 2001.
- 52. Infiltration and Inflow: Report of the Infiltration Task Force, February, 2002.
- 53. 2001 Annual Report, February, 2002.
- 54. Green Paper: Arsenic in Pressure-Treated Wood, April, 2002.
- 55. Green Paper: Fuel Cell Technology, July, 2002.
- 56. 2002 Annual Report, March, 2003.
- 57. Green Paper: Cross-Connection Control and Backflow Prevention, March, 2003.
- 58. Report of the Forestry Task Force Pursuant to Senate Resolution 81 of 2001, April, 2003.
- 59. Report on A Proposed Moratorium on the Use of Fly Ash in Mine Reclamation Projects, February, 2004.
- 60. 2003 Annual Report, February, 2004.
- 61. 2004 Annual Report, February, 2005.
- 62. Report of the Forestry Task Force Pursuant to House Resolution 256 of 2003, June, 2005.
- 63. Oil and Gas Leasing Activities on Commonwealth-Owned Lands, Pursuant to House Resolution 394 of 2003, January, 2006.
- 64. 2005 Annual Report, March, 2006.
- 65. 2006 Annual Report, March, 2007.

- 66. Report of the Forestry Task Force Pursuant to Senate Resolution 137 of 2005, December, 2007.
- 67. 2007 Annual Report, April, 2008.
- 68. Report on E-waste Recycling Programs and Policy Options, June, 2008.
- 69. 2008 Annual Report, March, 2009