The Joint Conservation Committee recently held its reorganization meeting for the 2001-2002 session, and just as spring brings about change, there have been some changes on the committee.

The new committee chairman is Rep. Scott E. Hutchinson (R-64) of Venango County. Scott, a committee member since 1995, succeeds Rep. Dave Argall, who chaired the committee for six years, and was elected to the House leadership position of Republican Caucus Chairman. Dave remains an active committee member and we thank him for his leadership and his continued involvement.

In addition to his JCC experience, Scott is a member of the PA Hardwood Development Council and the Timber Caucus, as well as the House standing committees on Finance, Game and Fisheries, Veterans Affairs and Emergency Preparedness, and State Government.

Long-time committee member and former chairman, Sen. Raphael J. “Ray” Musto was re-elected vice-chairman, a post he has held for six years. As Democratic chairman of the Senate Environmental Resources and Energy Committee, Sen. Musto brings a great deal of expertise, experience and knowledge to the committee.

A number of new members have also been appointed to the committee. Two are newly elected members of their respective legislative bodies as well: Rep. Jeff Coleman (R-60) and Sen. Joseph Scarnati (R-25). Other new committee members are Senate veterans Sens. Mary Jo White (R-21) and John Wozniak (D-35).

(continued on page 8)
Meet the Committee Members

The Joint Legislative Air and Water Pollution Control and Conservation Committee, known more familiarly as the Joint Conservation Committee, was created by act of the Legislature in 1967. Act 448 of 1967 dictated that the committee be composed of 18 members - nine from the House and nine from the Senate. Five members of the majority party and four from the minority party are appointed from each legislative body. The president pro tempore of the Senate and the speaker of the House of Representatives make the appointments.

We continue to introduce members of the committee so that the readers may learn more about these individuals, their interests and their accomplishments.

Senator John N. Wozniak
35th Senatorial District
Member, JCC

Sen. Wozniak is serving his second term in the Senate, having first been elected in 1996 and re-elected in 2000. He represents the 35th Senatorial District, which includes all of Cambria County and portions of Clearfield, Somerset, and Westmoreland counties.

Prior to election to the Senate, Wozniak served eight terms in the House of Representatives, beginning in 1980. He was formerly employed by NAVCO and a member of Local 354, Plumbers and Pipefitters.

Wozniak is a new member of the Joint Conservation Committee. He also serves as the Democratic chairman of the Senate Finance Committee, and is a member of the Senate Agriculture and Rural Affairs, Community and Economic Development, Game and Fisheries, and Intergovernmental Affairs committees. In addition, Wozniak serves on the Capitol Preservation Committee.

Wozniak is a graduate of Johnstown High School and the University of Pittsburgh at Johnstown, where he earned a B.A. in Economics.

He serves on the university's advisory board, as well as the Cambria County Community Action Council, Johnstown Area Regional Industries, Greater Johnstown Chamber of Commerce, Community Arts Center of Cambria County and a number of other civic and community organizations.

An Eagle Scout, Sen. Wozniak and his wife Vanessa have two children, Michael Vincent and Rachel Ellen.

Representative Jeff Coleman
60th Legislative District
Member, JCC

Jeff Coleman is serving his first term in the House of Representatives, representing the 60th Legislative District, which includes portions of Armstrong and Indiana counties.

In addition to his service on the Joint Conservation Committee, Coleman is secretary for the House Children and Youth Committee, and is a member of the Agriculture and Rural Affairs, and Game and Fisheries committees.

Coleman is the youngest person ever to be nominated for the House from the 60th Legislative District, and at age 25 is currently the House’s youngest member.

A graduate of Liberty University, Coleman served on the Apollo Borough Council prior to his election to the Pennsylvania House. He founded the Apollo Youth Idea Exchange, which provides young people the opportunity to have a voice in borough policy, and authored the borough’s “Zero Tolerance Drug Policy,” the first of its kind in the Kiski Valley.

Before election to the House, Coleman would eventually participate in and run nearly two-dozen local political campaigns before enrolling in Liberty University’s School of Business and Government in 1994. While in school, he worked as an aide for U.S. Senator Rick Santorum (R-PA), accepted several positions with businesses based in Lynchburg, Virginia, and Pittsburgh, and worked as a radio station news anchor.

Born on Washington’s Whidby Island Naval Facility, Coleman and his parents, Keith and Milan Coleman, made a number of mission trips overseas, before returning to the United States to take up residence in Armstrong County.
Acid Rain: A Continuing Threat To The Northeast
- Tony M. Guerrieri, Research Analyst

Reductions in power plant emissions have not done enough to reduce acid rain damage in the northeast, according to a report by the Hubbard Brook Research Foundation. According to the report, “Acid Rain Revisited: Advances in Scientific Understanding Since the Passage of the 1970 and 1990 Clean Air Act Amendments”, forests, lakes, and streams are not recovering from the effects of acid rain.

The foundation's report suggests that acid rain is causing far greater damage to the environment in the northeastern United States than previously thought. While sulfur dioxide emissions appear to be slowing, emissions of nitrogen oxide, another pollutant that contributes to acidification of lakes and forests, are not.

Pollution controls initiated through the Clean Air Act Amendments of 1990 called for dramatic reductions in sulfur dioxide emissions. Industry, especially utility companies, has already reduced sulfur dioxide emissions far beyond what the law calls for to date and at much less than the estimated cost. Sulfur dioxide emissions from all sources have declined from 32 million tons in 1973 to 20 million tons in 1998, a 38 percent reduction.

In contrast, nitrogen oxide emissions peaked at 25 million tons in 1990. According to the report, there has been a nominal four percent decrease in nitrogen oxide emissions between 1994 and 1998. Because there is no cap on total annual emissions of nitrogen oxide, the report suggests that nitrogen oxide emissions will increase gradually as both the U.S. population and fossil fuel consumption increase.

Acid rain is created when sulfur dioxide, produced primarily by fossil fuel-burning power plants, and nitrogen-bearing gases, primarily from automobiles, combine with water vapor in the atmosphere to form highly corrosive acids. Over time, acid rain can increase the acidity of lakes, streams, and soils to the point that they change local ecosystems. Acid rain can also contribute to forest damage.

Power plants, the report says, emit about 60 percent of all sulfur dioxide and the largest portion of that originates in the Midwest. From there, prevailing winds carry the pollutants to the northeast, where they are deposited through rain, snow or fog.

Acid rain has caused adverse impacts on certain sensitive forest ecosystems, particularly high-elevation spruce forests in the eastern United States. Since the 1960s, more than half of large-canopy red spruce in the Adirondack Mountains of New York and the Green Mountains of Vermont, and approximately one-quarter of large-canopy red spruce in the White Mountains of New Hampshire have died, according to the report. The report also suggests that sugar maple trees in central and western Pennsylvania may be susceptible.

The water quality of lakes and streams has also been impaired. About 41 percent of Adirondack-region lakes and about 15 percent of lakes in New England exhibit signs of acidification. Although there have been modest improvements in the New England waterways, the Adirondacks have seen no such progress. About 24 percent of the 1,469 lakes in the Adirondacks have become too acidic to sustain fish life.

The report concludes that federal emissions reduction requirements are not sufficient to achieve full ecosystem recovery. An additional 40 percent reduction in sulfur dioxide emissions from power plants beyond the requirements of the Clean Air Act Amendments of 1990 would help. The report suggests that an additional 80 percent reduction in sulfur emissions from electric utilities would be required to return sensitive streams back to non-acidic levels within 25 years.
In January 2001, the Energy Information Administration published the compilation of the 1999 study, "Voluntary Reporting of Greenhouse Gases". The study is used as a registry by federal government programs to determine the extent of greenhouse gas emissions. The Energy Information Administration is an independent statistical agency housed within the Department of Energy.

Currently greenhouse gas emission reporting is only done through the voluntary program. The report records the results of measures to reduce, avoid, or sequester greenhouse gases so that the gases do not reach the ozone layer where they do the most damage. According to the report, because of the growing concern over greenhouse gases, interest has increased in the voluntary reporting system. The voluntary reporting program database provides examples of the types of actions that organizations take in reducing greenhouse gas emissions, and has provided a training ground for determining the best methods for measuring and reporting emissions.

In order to create an incentive to report and reduce greenhouse gas emissions, the government has created a credit program. The program offers regulatory credit to companies who voluntarily decide to provide early reporting data. The credit comes in the form of a “carbon allowance” against a future cap on greenhouse gas emissions. The exact method of implementing the credit program is currently being debated among policymakers, interest groups, and corporations.

The report focuses much of its attention on energy producers because a majority of the reporters (100 of 201) are in that category. Typical energy producers are power plants, including nuclear-powered plants, and dams. According to the report, one of the primary methods for energy producers to reduce gas emissions is to increase operating efficiency.

The main problem in efficiency loss for an energy producer is that it is not possible to convert all of the thermal energy produced by the power plant into electrical energy. Most U.S. power plants operate at about 33 percent efficiency. That means that two-thirds of the energy produced is lost. If efficiency can be increased, then overall output can be decreased, reducing gas emissions.

One method for increasing efficiency and reducing gas emissions is cogeneration. Cogeneration involves the recovery and reuse of thermal energy to power the electric plant, producing more energy with less effort.

The report identifies methane as another common source of greenhouse depleting gases. Landfills are the largest single man-made source of methane in the United States. As waste decomposes in a landfill it produces a biogas that is approximately 50 percent carbon dioxide and 50 percent methane.

Methane is a potential beneficial and useful source of energy, if it is harnessed and purified. The principal method for reducing methane emissions from waste disposal and treatment plants is through methane recovery and captures. Once this process is performed, methane can be used as a fuel much like natural gas, which is in itself comprised of 95% methane.

Methane has a heat content of 500 Btu’s per cubic foot. That is approximately the same amount of energy produced by natural gas. Usually because of the impurities in methane, the gas is burnt for electricity generation. It must be purified and stored before it can be sent to a pipeline. Excess electric power in this scenario can then be resold to the grid. Efforts have increased to find a method of using methane in medium Btu boilers.

The specific reports that are submitted to the program are available on CD-ROM. Contact the Voluntary Reporting of Greenhouse Gases Program Communications Center at 1-800-803-5182 or download them via the web at http://www.cia.doc.gov/oiaf/1605/database.html.

The study itself is available on the web at: www.cia.doc.gov/oiaf/1605/vrerp/index.html.
New Jersey’s Clean Fuels Program Reviewed
- Tony M. Guerrieri, Research Analyst

New Jersey’s transportation system is vital to the state’s economy, but it is also a major source of air pollution. The state’s 5.8 million vehicles are responsible for 43 percent of the volatile organic compound emissions and 44 percent of nitrogen oxide, the two main components of ground level ozone.

To reduce vehicle emissions, New Jersey began encouraging the use of alternative transportation fuels. One of the first demonstration projects using Alternative Fuel Vehicles (AFVs) began in 1991 with the purchase of five natural gas buses. However, since that time New Jersey has been slow to move from demonstration projects to a more comprehensive program, according to the research organization INFORM.

The INFORM report, “Green Transportation for New Jersey: The Promise of Clean Fuels”, reviews New Jersey’s efforts to improve air quality through the use of AFVs and the level of support such programs have received.

New Jersey’s cities are frequently subjected to unhealthy levels of air pollution. Ninety-five percent of New Jersey’s 8.1 million residents live in areas that fail to meet federal public health standards, compared to 38 percent of the United States population. Eighteen of New Jersey’s 21 counties are in violation of federal ozone standards.

The report identifies four trends increasing vehicle emissions in New Jersey:

✦ higher density of truck traffic;
✦ increasing vehicle miles traveled (Between 1970-1997, miles grew 36 percent while population grew only 12.3 percent.);
✦ sprawl development (The number of automobile dependent office developments quadrupled between 1990 and 1997, while the number of transit accessible office developments remained unchanged.); and
✦ growing popularity of sport utility vehicles, which are 40 percent more polluting than passenger cars.

The report highlights several positive aspects of New Jersey’s alternative fuels program. For example, in 1999, the state set a goal of buying more AFVs for the state’s fleet than mandated by the federal Energy Policy Act and set low emissions standards not required by federal law for the AFVs.

New Jersey is also committed to creating an infrastructure to refuel state vehicles. Another project includes a demonstration program of 21 electric cars at three locations.

However, the report concludes that New Jersey needs to take a stronger role in leading and managing its AFV programs. Without leadership and financial resources, New Jersey will not achieve the air quality goals that AFV programs offer. Despite its efforts since 1991, the number of AFVs on New Jersey’s highways is, at most, several thousand.

The report makes five recommendations for expanding the state’s clean fuels program. These include:

✦ creating a dedicated funding source for AFV purchases;
✦ building a significant refueling infrastructure;
✦ developing a system for monitoring the number of AFVs on the road;
✦ providing subsidies to reduce the incremental costs of buying and operating AFVs; and
✦ promoting the state’s achievements and activities in the AFV field.

INFORM also recommends expanding AFV initiatives in eight areas, targeting state, county, municipal and other public fleets, taxi and school bus fleets, and buses operated by New Jersey Transit.

The report is available from INFORM, 120 Wall Street, New York, New York 10005; telephone: (212)-361-2400, Ext. 240. The report is also available at www.informinc.org on the web.
Stormwater runoff is a constantly growing concern for communities with already overburdened sewer systems. Increased land development, reduced green space, and aging sewers further exacerbate the problem. A recent study suggests that we must challenge our current perceptions of stormwater management in order to find a realistic solution. The study, "Preparing For The Storm: Preserving Water Resources With Stormwater Utilities," was produced by the Reason Public Policy Institute.

According to the study, the current problems with stormwater systems are a result of the traditional approach to stormwater runoff. That approach is characterized by three major problems:

- First, when new construction and development is implemented, it is standard procedure to remove all vegetation, reducing the amount of water that the ground can naturally hold.
- Second, when development is planned, it is common practice to overdevelop impermeable surface, which limits the area available for water to percolate into the ground.
- Third, when new development is implemented, stormwater systems are often designed to flow directly into waterways, which adds pollutants to already contaminated streams and rivers.

These traditional practices cause an overburdening of stormwater systems as the systems age and development increases. This is particularly true for combined sewage systems.

According to the study, traditional methods of coping with increased stormwater flow resulting from development are ineffective. Generally stormwater systems are paid for through a fixed rate tax system. The tax rate is usually based on property value and land area. Unfortunately land area and property values have little to do with stormwater runoff and sewer capacity. As a result, if stormwater increases due to new development the tax-based system cannot adapt to accommodate the increased flow. This creates an economic vacuum, which leaves no resources to adapt old sewer systems.

The study recommends that in order to effectuate positive change on stormwater management practices we must deviate from the traditional approach, begin thinking of stormwater runoff as a utility, and create user-fee based funding for stormwater management. The study states that user fees create incentives to minimize harmful impacts of development and to conform to the resource capacity of a watershed.

One advantage of such a market-based system is that creation of such a utility would provide dedicated infrastructure and management funding, with fees derived from specific impacts. A fee-based system would also create an equitable means of dealing with stormwater runoff, in that communities which produce the most runoff would be most responsible.

A fee-based system would also enable stormwater management approaches to adapt to changes in the hydrological cycle. As the impact on stormwater drainage increases, a community could provide for increased user-fees, which could then be directed toward improving stormwater management practices and accommodating increased runoff.

The study was written by Barrett P. Walker in January 2001 and is available on the web at: http://www.rppi.org/ps275central.html.
On The Horizon…

a look at upcoming committee events

✔ Friday, May 4 at 9 a.m., Hearing Room 2, North Office Building — Infiltration Task Force Meeting. Walter Lyon, chairman of the Infrastructure Committee of the South-Central Assembly for Effective Governance, will make a presentation on the assembly’s formulation of a five-year work plan to establish the first ever comprehensive regional asset management plan for all publicly owned infrastructure (the topic of the committee’s Jan. 30 Environmental Issues Forum).

Also, Brenda Reigel, executive director of the Pennsylvania Utility Contractors Association will provide an update on the National Utility Contractors Association Annual Convention and moderate a discussion on the need to develop minimum standards for design and construction of municipal water and sewer systems.

The task force was formed pursuant to House Resolution 376 of 1998.

✔ Monday, May 21 at 11 a.m., Room 205, Matthew J. Ryan Building — Environmental Issues Forum. The committee’s special guest will be newly confirmed Department of Environmental Protection (DEP) Secretary David E. Hess. This will be a unique opportunity to welcome Secretary Hess and to hear his thoughts on the department’s future direction and upcoming initiatives. Join us for lunch and a special occasion to meet Secretary Hess.

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

Committee Chronicles…

a review of some memorable committee events

In February, at Rep. Jerry Stern’s (R-Bedford/Blair) invitation, committee members and staff traveled to Hollidaysburg to visit the Penn Turf, Inc. tire recycling operation and discuss ways in which to provide more markets for scrap tires.

The photo at right shows the machinery used by Penn Turf to break down the scrap tires and make tire chips and other products. Above, Penn Turf owner Phil Bottenfield (left) describes his operation as Rep. Stern (center) and committee Director Craig Brooks listen.
As we welcome the new members, we say farewell to former members U.S. Congressman Todd Platts, former Sen. Albert “Bud” Belan, and Sens. Jake Corman and Richard Tilghman. We thank them for their service to the committee.

The committee just completed two public hearings on the issue of combined sewer overflows or CSOs. Hearings in Nanticoke and Pittsburgh showed graphically the scope of the problem. Pennsylvania leads the nation in CSOs, with 152 communities served by combined sewer systems and 1,659 CSO outfalls, which typically occur during wet weather events. The U.S. Environmental Protection Agency (EPA) estimates CSOs to be a $4 billion problem in Pennsylvania and more than $40 billion nationwide. The statewide figure may be conservative, since the estimated cost to fix the CSO problem in the Pittsburgh region served by the Allegheny County Sanitary Authority (ALCOSAN) is estimated at as much as $3 billion.

Combined sewer systems are those built years ago when the state-of-the-art was to have one system to handle both sanitary sewage and stormwater. Such technology is no longer permitted; systems built today must be separated - one for sanitary sewage and one for stormwater. However, under wet weather conditions the older combined systems often cannot handle the increased flow, and untreated human and industrial waste, a variety of toxins and other debris are dumped into steams and rivers.

“It is the water quality issue that is now the most compelling problem for the communities and the state to solve together.”

Sen. Musto has introduced Senate Bill 150, the Combined Sewer Overflow Control Act, to begin to address the problem. SB 150 would provide a $1 billion bond issue - with voter approval - from which grants to correct CSO problems would be awarded and administered by the Pennsylvania Infrastructure Investment Authority (PENNVEST).

Meanwhile, federal funding for CSO and sanitary sewer overflow (SSO) problems - a major consideration in the Pittsburgh area - will not be available until fiscal year 2002, if approved by Congress.

EPA published its CSO Control Policy in 1994 and it was made part of the Clean Water Act in December 2000. As part of that policy, the Pennsylvania Department of Environmental Protection (DEP), which testified at both committee hearings, is working with municipalities and authorities on implementing the Nine Minimum Controls (NMCs) and Long Term Control Plans (LTCPs) called for in the federal policy. While the EPA policy takes into consideration a permittee’s ability to pay, at some point financial arrangements are expected to be made and the problem addressed.

Copies of SB 150 and hearing testimony are available from the committee at (717) 787-7570.

DEP’s Deputy Secretary for Water Management Larry Tropea testified that DEP’s position is to take a stepwise approach. “We have recently directed our regional offices to contact all CSO dischargers and ensure that they have implemented best practices to eliminate or minimize CSO impacts,” he said. “Where we find that authorities or communities have not fully implemented these improvements, we will be negotiating formal Consent Orders to put them on the right track.”

The CSO problem is part of the economic development picture. For example, control of CSOs to allow for Susquehanna River riverfront development was key for a number of witnesses in Nanticoke. Stephen Barrouk, president/CEO of the Greater Wilkes-Barre Chamber of Business and Industry stated, “It is the water quality issue that is now the most compelling problem for the communities and the state to solve together. If we can correct the problem our river’s water quality now presents, we have the opportunity to build our future around this body of water that has served our economic interests for generations.”