

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



I was pleased to read recently that Pennsylvania is finding more ways to reuse and recycle materials that have outlived their usefulness and which would have posed potential health and safety hazards if disposed of in conventional methods.

A case in point is a recent story about what PNC Financial Services is planning to do with a former city building in Pittsburgh. The building is being torn down to create a park. However, the company plans to recycle much of the building components, rather than disposing of them in traditional ways. As a matter of fact, more than 70 percent of the building will be recycled, a tremendous saving of landfill space and resources.

For example, instead of scrapping more than 2,500 tons of concrete, it will be ground up and reused to fill the site. Some 350 tons of steel will be melted to make construction supports. Aluminum window frames – nine tons of them – will be made into cans and other products. Even foam-board ceiling tiles are to be returned to the manufacturer to be used again, according to press accounts. As a matter of fact, it is estimated that 8,000 of the 11,000 tons of waste which will be created at the project site will be recycled. And, according to the article, recycling of buildings is becoming more commonplace.

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November 15 was America Recycles Day... What did you recycle?

Another case in point. It was recently reported that 11,000 tons of waste tires would soon be removed from a waste tire pile in Wind Gap, Pennsylvania – a pile which was an eyesore, a health hazard and a deterrent to economic development. The Joint Committee had visited that pile and helped to secure funding to clean it up.

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NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, DIRECTOR

In the opinion of some, the Clean Air Act (CAA), now 34 years old, has arguably been the most successful environmental legislation passed by Congress. Still others pick the federal Clean Water Act and some point to the Endangered Species Act as the most successful. Regardless of which one you favor, they have all had a tremendous impact on the nation's environment.

Year after year, environmental safeguards have been added to the CAA to reduce emissions across the country. As a result, America's air quality has become steadily healthier. Ironically, the public seems to have only a limited understanding of the progress and continues to believe that air pollution problems in the United States are increasing.

Approved in 1970, the CAA has been periodically amended over the years and has directed the U.S. Environmental Protection Agency (EPA) to identify the most serious pollutants and establish standards based on protecting human health. EPA selected carbon monoxide, lead, ozone, nitrogen oxide, sulfur dioxide and particulates, and based on epidemiological and other data, set the ambitious National Ambient Air Quality Standards (NAAQS). Because the nation hadn't installed monitoring equipment prior to CAA approval, we'll never know the true impact of air pollutants on our health, but based on monitored data collected since then, we know that significant progress has been made.

The paradox here is that while there has been an increase in job growth and an increase in the economic and demographic factors that are usually associated with increased air pollution, EPA has found that nitrogen oxide emissions have declined by 17 percent and sulfur dioxide emissions have declined by 49 percent. At the same time, lead emissions have decreased by 98 percent and carbon monoxide by 41

percent. Volatile organic compounds (which are ozone indicators) and particulate emissions from combustion have declined by 48 percent and 82 percent, respectively...and yet...the population of the United States grew by 42 percent to a whopping 291 million people and overall energy consumption increased to more than 97 trillion BTUs, up 43 percent. Meanwhile, total employment grew by 95 percent to 138 million, the number of registered vehicles alone increased by 111 percent, to 235 million and annual miles traveled increased by 151 percent, to 2.8 trillion miles.

These facts don't appear to have registered on the consciousness of most Americans. Despite the progress made in ambient air quality, notwithstanding the increases in pollution contributing factors, a recent poll commissioned by

the Foundation for Clean Air Progress (FCAP) suggests that seven out of ten Americans believe that air quality has either diminished or stayed the same.

Instead, progress is being made while the nation is driving more, producing more and consuming more energy than ever before in history. While circumstances would seem to dictate that more pollution is inevitable, the opposite is true. A clear disconnect between the progress that has been made and public knowledge and perception remains.

The poll showed that only 29 percent of adults believe that air quality in the U.S. has improved and only 28 percent believe that it will improve in the future. However, FCAP points out that a healthy growing economy and clean air are not mutually exclusive and that is a message that needs to be spread. No one disagrees that 30 years of environmental protection is a good thing but continuing to make improvements and getting that message across to the general public needs to be improved.

The Foundation for Clean Air Progress study shows that a healthy, growing economy and clean air are not mutually exclusive

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.

Fuel Economy Remains Steady as Vehicles Get Heavier, More Powerful

— Tony M. Guerrieri, Research Analyst

In the three decades since the first oil shock in 1974, both regulatory pressure and market forces drove fuel economy of the U.S. new vehicle fleet from 13.1 miles per gallon (MPG) in 1975 to 2004's average fuel economy of 20.8 MPG. Although gradual retirement of older, less efficient vehicles and their replacement with new ones continue to raise overall efficiency of the fleet, new vehicle fuel economy has plateaued, according to a report by the U.S. Environmental Protection Agency (EPA).

The EPA report, *"Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2004"*, indicates that the model year 2004 average of 20.8 MPG remains within the 20.6 to 20.9 MPG range that has been the standard for the past eight years. The EPA's annual fuel economy report summarizes key fuel economy and technology usage trends related to light-duty vehicles (cars, vans, sports utility vehicles (SUVs), and pickup trucks) for model years 1975 through 2004.

The EPA report highlights three major trends and examines the current status of fuel economy in the United States.

First, fuel economy has gone through four phases since 1975, beginning with a rapid increase that lasted through the mid-1980s. The increase slowed in the late 1980s and then began a gradual decline through the 1990s. By the late 1990s, the trend leveled off and has remained somewhat steady since then, in that previously mentioned 20.6 to 20.9 MPG range.

Since peaking at 22.1 MPG in 1987 and 1988, average light vehicle fuel economy has declined six percent to 20.8 MPG. According to the report, one of the primary reasons for this decline is the increasing market share of light trucks for passenger travel. Although light truck fuel efficiency has improved markedly since 1974, these vehicles remain substantially less fuel

efficient than automobiles. Whereas the average 2004 rated fleet fuel economy for new automobiles is 24.6 MPG, the fleet average for new light trucks is 17.9. Within the light truck category, model year 2004 SUVs average 17.9 MPG, pickup trucks average 17 MPG and vans average 20 MPG.

Second, this disparity in efficiency has a growing influence on overall efficiency of the light-duty fleet because sales of light trucks are rising relative to auto sales. Sales of light trucks have risen steadily for over 20 years and now make up 48 percent of the market. This is more than twice their market share as recently as 1984. Growth in the light truck market has been led recently by the explosive popularity of SUVs. Sales of SUVs have increased by a factor of ten from less than two percent of the overall new light vehicle market in 1975 to over 25 percent in 2004. Between 1975 and 2004, market share for new passenger cars decreased from 81 to 52 percent.

Compared to 1987 as a benchmark year, this year's fleet is 26 percent heavier, 24 percent faster and 76 percent more powerful.

A third highlight notes a growing attraction among purchasers of new vehicles to more powerful and faster vehicles. As more efficient technologies continue to enter the new light vehicle fleet they are being used to increase vehicle weight, power and performance rather than fuel economy. This is reflected by heavier average vehicle weight for all light vehicles, a steady increase in the top speed of all light vehicles, and a steady increase in the acceleration power of all light vehicles. Compared to 1987 as a benchmark year, this year's fleet is 26 percent heavier, 24 percent faster and 76 percent more powerful.

Technologies important for improving fuel economy including hybrids, continuously variable transmissions, and diesel engines are represented in the current fleet, but total sales for vehicles equipped with these technologies are not yet significant, i.e., none of them exceed two

percent of the light-duty vehicle fleet.

Since the early 1970s, the EPA has issued reports that summarize new light vehicle fuel economy data. Efforts to boost the efficiency of the U.S. light-duty fleet of automobiles and light trucks are based primarily on three key policy issues facing the United States:

- Fuel economy is directly related to carbon dioxide emissions, the most prevalent pollutant associated with global warming.
- Light vehicles account for approximately 40 percent of all U.S. oil consumption. Crude oil, from which nearly all vehicle fuels are made, is a finite natural resource.
- Fuel economy is directly related to the cost of fueling a vehicle and is of greater interest when oil and gasoline prices rise, as has happened recently.

The full EPA report is available at <http://www.epa.gov/otaq/cert/mpg/fetrends/420s04002.pdf>.

Commission Accepts Balanced Growth Recommendation

— Craig D. Brooks, Executive Director

The Ohio Lake Erie Commission, through its Balanced Growth Task Force has recommended a framework for achieving balanced growth in the Lake Erie Watershed. The commission has defined balanced growth as a strategy to protect and restore Lake Erie and its watersheds in order to assure long-term economic competitiveness and ecological health. Referred to as Ohio's "Lake Erie Protection and Restoration Plan" (LEPRP), the framework focuses on land use and development planning in the major river tributary watersheds of the lake. The goal is to create a plan that links land use planning to the health of the watershed.

Several years ago, the 30-member task force was created by the commission to examine the impacts that future growth would have on the lake and how state and local communities could better promote conservation and development. The current framework is the result of existing watershed initiatives that have already received wide community support and allowed the state to promote related economic competitiveness and quality of life issues. The task force members included property owners, conservation organizations, business leaders, planners and government agencies.

The LEPRP calls for the creation of Watershed Planning Partnerships with local governments, planning agencies, non-profit organizations and others to develop a list of Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs). PDAs are designated areas

where growth and redevelopment would be encouraged. PCAs are those areas targeted for protection or restoration.

The most significant recommendations from the task force are:

- Focusing land use and development in the major tributary rivers and watersheds. The goal is to link land use planning to the health of the watershed.
- Creating Watershed Planning Partnerships with the stakeholders including planners, nonprofits, environmental organizations and government agencies in each of the designated watersheds.
- Local designation of the PDAs and the PCAs.
- Developing models to help promote best land use practices to minimize impacts on water quality.
- Aligning state and local policies and resources to promote watershed planning and implementation of the Balanced Growth initiative.

While the LEPRP is voluntary, the commission plans to work with the state of Ohio and neighboring states to offer financial incentives to watershed communities that augment their land use planning initiatives with the Watershed Balanced Growth Initiative. This gives Lake Erie watershed communities the opportunity to foster collaboration and work toward sustaining and protecting the water resource.

For more information about the Balanced Growth Initiative, please visit the commission's website at: <http://www.epa.state.oh.us/oleo>.

Report Finds 44 States Advise Limited Fish Consumption Due to Mercury Contamination

— Tony M. Guerrieri, Research Analyst

Toxic mercury, largely emitted from coal burning power plants, is polluting waterways, contaminating the fish consumers eat, and posing a serious threat to public health, according to a report by the U.S. Public Interest Research Group (PIRG). The report, "Fishing for Trouble: How Toxic Mercury Contaminates the Fish in U.S. Waterways", details the active fish consumption advisories issued by the states in 2003 due to mercury pollution in local waterways and finds that fish in a large percentage of America's lakes, rivers, and coastal waters are not safe for unlimited consumption.

According to the report, a review of U.S. Environmental Protection Agency (EPA) data on state fish consumption advisories reveals that mercury advisories cover a greater area than ever before. In 2003, 44 states had active mercury consumption advisories for local waterways compared with only 27 states in 1993 and 39 in 1997, an increase of 63 percent in 11 years.

More and more states are issuing statewide advisories, or advisories covering all of their inland freshwater lakes and/or rivers for at least one species of fish. In 2003, 21 states issued statewide advisories for their inland lakes and/or rivers (Connecticut, Florida, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, North Dakota, New Hampshire, New Jersey, Ohio, **Pennsylvania**, Rhode Island, Vermont, Washington and Wisconsin). New to the list are Montana and Washington, which for the first time in 2003 issued statewide advisories for all inland waterways, and Wisconsin, which added a statewide advisory on all of its rivers.

In 2001, Pennsylvania recreational anglers spent over \$580 million on fishing, ranking Pennsylvania 18th in money spent on recreational fishing.

The report also indicates that a growing number of the nation's lakes are under mercury advisory. In 2003, active mercury advisories covered at least 13.1 million acres of lakes (including statewide advisories), or 32 percent of all lake acres. The number of lake acres under advisory for mercury increased by six percent, up from 12.4 million acres in 2002. Indiana, Michigan and **Pennsylvania** have mercury advisories covering the Great Lakes and connecting waterways. These advisories cover 2,334 miles of Great Lakes coasts and connecting rivers.

States are also issuing advisories covering more and more miles of the nation's rivers. In 2003, active mercury advisories covered at least 767,000 miles of river (including statewide advisories), or 22 percent of all river miles. The states with the most river miles under advisory were Montana (176,750), Kentucky (89,431), Washington (73,886), Wisconsin (57,698) and **Pennsylvania (53,962)**. The number of river miles under advisory for mercury increased by 67 percent, up from 458,000 miles in 2002.

Much of the nation's coastline is covered by fish consumption advisories for mercury. In 2003, fish consumption advisories for mercury and other contaminants covered more than 70 percent of coastal waters of

the contiguous 48 states. The EPA estimates that 92 percent of the Atlantic coast and 100 percent of the Gulf coast was under advisory in 2003. Hawaii issued a statewide advisory covering all 930 miles of its coast. In total, 16,569 miles of the nation's coastlines were covered by mercury advisories in 2003.

According to the report, mercury contamination threatens recreational fishing, causing anglers to reduce the number of days they fish, choose other locations to fish, and take fewer overall fishing trips. In 2001, recreational anglers spent \$35.6 billion on fishing, with nearly \$28 billion, or close to 80 percent, spent in states with active fish consumption advisories for mercury. In 2001, **Pennsylvania** recreational anglers spent over \$580 million on fishing. **Pennsylvania** ranks 18th for money spent on recreational fishing.

State health departments issue fish consumption advisories to warn people to limit or avoid consumption of contaminated fish. Mercury is a dangerous toxic metal, especially for children. Exposure to mercury can cause attention and language deficits, impaired memory, and impaired visual and motor function in children. Scientists at the EPA estimate that one in six women of childbearing age in the U.S. has levels of mercury in her blood high enough to put 630,000 of the four million babies born each year at risk of health problems due to mercury exposure.

The report recommends that the EPA reduce power plant mercury emissions by at least 90 percent from existing levels by 2008. This would bring power plant mercury emissions down from nearly 50 tons per year to roughly five tons per year by 2008.

A copy of the U.S. PIRG report can be found at http://www.uspirg.org/reports/fishingfortrouble04/Fishing_for_Trouble2004.pdf.

**News to Use in the
Environmental Synopsis...
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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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Conservation Group Lists Dams Slated for Removal

– Craig D. Brooks, Executive Director

Approximately 60 dams are targeted for removal by the end of 2004, restoring streams and rivers and eliminating safety hazards, according to an annual survey by the environmental organization American Rivers. According to the survey, dams are being removed in 14 states - including many in Pennsylvania - and the District of Columbia. Communities across the country are electing to remove obsolete dams and restore waterways to natural conditions.

So far this year, removal has begun on five of the 60 dams and action on the others may not be undertaken until 2005. Twenty-one of the dams set for removal are located in Pennsylvania. Eleven of the dams listed in Pennsylvania have already been removed or were scheduled for removal by the fall of 2004. The remaining 10 dams are scheduled to be removed before the end of 2004 or be completed in 2005. American Rivers found that 57 dams were scheduled for removal in 2003, but only 33 were removed, primarily due to weather delays.

Pennsylvania is one of 14 states across the nation where obsolete dams – 21 of them – are being removed and waterways restored to natural conditions

During the past two centuries, thousands of dams were constructed, many of which no longer serve a purpose. These dams can have a negative impact on water quality and aquatic life by altering water temperatures and dissolved oxygen levels. Free flowing rivers are a magnet for anglers, boaters and other river users. Healthy, attractive rivers are unique assets for the surrounding communities and can be economic assets that cannot easily be matched.

The following dams are scheduled for removal in Pennsylvania in 2004-2005:

1. Bear Rock 1 and 2 Dams, Bear Rock, PA: Two 30-foot dams built in 1903 by Mountain Springs Water Company to provide water to the surrounding area. They no longer serve their function and are a liability.
2. Benscreek Intake, Ben's Creek, PA: Built in 1905 to provide a water source to steam locomotives.

3. Logan's Reserve Pond Dam, Tributary to the East Branch of Codorus Creek, York County, PA: A 59-foot dam constructed to provide a water supply to a golf course that was never constructed.
4. Sharrer's Mill Dam, Conewago Creek, PA: Originally constructed for use by a flour mill and no longer in operation.
5. Siloam Dam, Conococheague Creek, PA: Owned by the City of Chambersburg, PA and no longer in use.
6. Frankford Dam, Pennypack Creek, PA: Owned by the City of Philadelphia, the dam impedes fish migration.
7. Twining Valley Golf Course Dam, Tributary to Sandy Run, PA: Originally constructed to provide irrigation to the adjacent golf course and is now responsible for downstream flooding.
8. Mohnton Dam, Wyomissing Creek, PA; Converted iron works mill dam used for water supply until the 1970's. It is no longer in use.
9. Hoffman Dam, Yellow Breaches Creek, PA: Built around 1900 to power a mill that no longer exists.
10. Cussewago Creek Dam, Meadville, PA: Home to two federally listed freshwater mussels and considered an exceptional value stream.

American Rivers' list and description of dams slated for removal is available at: http://www.amrivers.org/doc_repository/DamRemoval/2004_Dam_Removal_List.pdf.



ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS

There are no new events scheduled at this time. Environmental Issues Forums will resume with the 2005 legislative session.

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

October's Environmental Issues Forum featured Keith A. Craig, executive director of the PA Hardwoods Development Council. Craig, pictured in the photo at left, provided an interesting presentation examining Pennsylvania's hardwoods industry, updating its status and looking at its future.

On the same day, the PA Woodmobile, a traveling display regarding Pennsylvania's hardwoods, was parked at the Capitol to allow lawmakers and the public to learn more about Pennsylvania's hardwood forests and the industry.

Pictured below (center and right) are the exterior and interior of the Woodmobile.

Copies of Craig's presentation are available by contacting the committee office at 717-787-7570.



Later in the story, what caught my eye was the report that the tires, instead of being landfilled, would be reused as part of a bridge repair project in Armstrong County. Tires are proving to be an effective material in bank stabilization and for use as fill in highway projects.

Speaking of tires, the Joint Committee has long promoted the recycling and reuse of waste tires and will continue to seek to improve the necessary public-private partnership that will create new markets and new uses. The committee is working to encourage state agencies to be more open to the use of waste tire products and to be more innovative in finding new uses.

Recycling is a \$23 billion industry in Pennsylvania, paying \$2.9 billion in wages to more than 81,000 people employed by recycling and reuse industries...

(Source - PA DEP)

Here's a timely recycling idea that hasn't made it to Pennsylvania yet. Marion County, Oregon has established a program to recycle plastic political campaign signs, many of which still dot lawns, roadsides and highways in Pennsylvania and across the nation. A local business will clean and shred the plastic signs and sell the plastic pellets created. The plan is to use the pellets to make handles for tools.

As Bailey Payne of Marion County's environmental services division puts it, there are a couple of important lessons to be learned. "It's a perfect opportunity to remind people that things that we traditionally consider to be garbage still have value. By looking at our waste stream in terms of resources instead of just a burden, it will help to change people's attitudes."

Such innovative methods of recycling and reuse are impressive. Pennsylvania must continue to seek out and find ways to recycle and reuse more and different products, whether it be tires, aluminum, paper, building materials, food-stuffs, coal or a myriad of other products we throw away unthinkingly every day. Research into using food scraps for an energy source needs to go on. A state and federally supported project in Schuylkill County to turn waste coal and its ugly and dangerous culm banks into ultra-clean-burning diesel fuel and electricity deserves the opportunity to turn ambitious plans on paper into real energy and real jobs on the ground in Pennsylvania.

By reusing and recycling, it is possible to solve environmental problems while creating economic opportunities. So, let's think outside the box before we throw away the box. In the coming months, I hope to read about more examples of entrepreneurs who are recognizing resources where before only burdens existed.



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