

# ENVIRONMENTAL SYNOPSIS

## The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



It was Miguel de Cervantes Saavedra who wrote in the classic *Don Quixote*, "There is a time for some things, and a time for all things; a time for great things and a time for small things."

Last month the *Environmental Synopsis* presented the results of the Joint Legislative Air and Water Pollution Control and Conservation Committee's (Committee) questions that were part of the 2009 Mansfield University Statewide Survey. The topic of the questions was Pennsylvania's state parks.

Let's consider last month's contents a "great" thing, since they spoke to the statewide, overall results. I thought it might be fun and instructive to examine some of the "small" things in the statewide survey, namely some of the cross-tabulation breakdowns of the responses.

For example, it was interesting to note the "family" nature of the numbers regarding usage of state parks in Pennsylvania. More than 60 percent (60.7 percent to be precise) of those who had visited a state park within the past year said they had children under 18 years of age.

The percentage of those who had visited a state park with no children in the family was only 44.1 percent. Also, the percentage of those who had visited and had children 18 or older was 50.6 percent.

Similarly, 60.2 percent of those responding with children under age 18 visited more than one state park in the past year, while 64.4 percent with children over 18 had visited more than one. That compares to 58.2 percent of those with no children who had made more than one visit.

Those with children under age 18 who made an overnight stay at a state park far and away (75 percent) preferred camping to a cabin or hotel/motel. A smaller percentage (56.8 percent) of those with children over 18 preferred camping, while a larger percentage of those with children over age 18 compared to those with children under 18 (27 percent compared to 13.6 percent) preferred a cabin.

A cabin was a preferred alternative to a hotel/motel off-site for both groups; 16.2 percent of those with children over 18 and 11.4 percent of those with children under 18.

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# NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR

For many years now, the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) has a demonstrated track record of active interest in the management of coal combustion by-products (CCB) - the ash remaining after coal is burned for electricity. In 2006 - 2007, ASTSWMO gathered information about state regulation of CCB throughout the United States. The survey results of that effort have indicated that states have shown that they are capable of effectively regulating CCB and do not need federal standards.

The Environmental Protection Agency (EPA) has begun developing regulation on management of coal ash in the wake of a December 2008 incident in which more than a billion gallons of CCB from a Tennessee power plant spilled onto nearby land and into waterways. There is no question that releases such as the one in Tennessee should be prevented to the extent practical through appropriate engineering, design, and operating standards. However, it is also critical that all relevant factors be considered in deciding the appropriate course of action. The ASTSWMO has modified and reissued the 2006-2007 survey results.

The survey of the 42 states that have facilities that generate CCB found that at least 36 (three states did not respond) have permit programs for landfills used to manage the waste. Of the 36 states that have CCB surface impoundments - such as the slurry pond that failed in Tennessee - 25 have permit programs. Landfills are the disposal facilities for CCB while surface impoundments can be used either for temporary storage or disposal, according to the American Coal Ash Association.

Of the states with coal-ash landfills with specific regulatory requirements, 64 percent require that the landfills be lined, 81 percent require groundwater monitoring, 52 percent require leachate collection, 86 percent require corrective action, and 69 per-

cent require financial assurances. Of the states with surface impoundments, 33 percent require liners, 39 percent require groundwater monitoring, 14 percent require leachate collection, 42 percent require corrective action, and 31 percent require financial assurance.

Environmental organizations have suggested that federal regulations are necessary to ensure that

every state is meeting requirements for the safe storage and disposal of CCB. EPA announced in March 2009 that it would issue regulations by the end of 2009, but it is unclear what form

those regulations will take. Chief among concerns from the CCB industry and states with current regulatory requirements is that EPA will decide that coal ash should be managed as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Coal ash is currently regulated by the states as a solid waste under RCRA Subtitle D.

According to ASTSWMO, the survey results are evidence that the states have taken action to manage CCB, and that EPA needs to tread lightly as it develops its promised regulations.

ASTSWMO has suggested that changing the classification of the waste from non-hazardous to hazardous would have serious implications for the beneficial uses of coal ash. According to ASTSWMO, about 50 percent of the ash produced today is reused as construction fill or put to other uses. A hazardous waste determination would probably eliminate beneficial reuse and create a capacity problem in hazardous waste landfills.

Because half of the states already have landfill requirements in place demonstrates that minimum Subtitle D requirements will be sufficient to ensure proper handling of coal ash and that states have an adequate means of regulating the disposal of this material - in many cases with existing regulations.

**According to ASTSWMO, its survey shows that states are capable of effectively regulating coal combustion by-products and federal standards are not needed**

# 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.

## Pennsylvania a Leader in Green Jobs

-- Tony M. Guerrieri, Research Analyst

The nation's clean energy sector, which includes everyone from energy-efficiency consultants to wastewater plant operators, is relatively small, but it is growing rapidly, and Pennsylvania is one of the leading players, according to a report by Pew Charitable Trusts. The report, *"The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America"*, says that the number of green jobs in the United States grew 9.1 percent between 1998 and 2007, about two and a half times faster than job growth in the economy as a whole.

The report breaks down green job growth on a state-by-state basis. Green jobs are defined as those belonging to the "clean energy economy," which the report calls one that "generates jobs, businesses and investments while expanding clean energy production, increasing energy efficiency, reducing greenhouse-gas emissions, waste and pollution, and conserving water and other natural resources."

The nation's most populous state, California, had the most clean-energy jobs in 2007 – about 125,000 jobs. Texas, ranked 2nd, had nearly 56,000 such workers that year and Pennsylvania, ranked 3rd, had nearly 39,000. The national average was 15,000 green jobs per state. Wyoming had the fewest green jobs with 1,419.

The traditional "fossil fuel" energy economy of oil, natural gas, and coal employed about 1.2 million in 2007. By way of comparison, some 770,000 jobs in five green energy categories: clean energy; energy efficiency; environmentally friendly production; conservation and pollution mitigation; and training and support were tied to the clean energy economy.

Ironically, pollution-producing industries are one reason Pennsylvania ranked high in green jobs. The Commonwealth had 24,703 jobs tied to conservation and pollution mitigation in 2007, again ranking third behind California (64,799 jobs) and Texas (40,617 jobs). Pennsylvania ranked second behind

California in jobs related to clean energy production. About one-fourth of Pennsylvania's clean energy jobs (more than 10,000) related to clean energy production. The Commonwealth ranked in the top ten among states in jobs providing clean energy training and support with over 1,700 jobs. The remainder produced environmentally friendly products and provided energy efficiency.

However, states experiencing the largest growth rates in "green jobs" were Idaho with 126 percent more such jobs, followed by Nebraska at 109 percent. New Mexico, Oregon and Kansas all posted just above 50 percent green-job growth.

## Pennsylvania holds its own in green job creation in several categories and has nearly 3,000 clean energy companies

Nine states – including Pennsylvania (-6.2 percent), New York (-1.9 percent) and New Jersey (-9.6 percent) – saw the number of green jobs decline from 1998 to 2007, with the largest loss (albeit from a small base) coming in Utah (-12.4 percent).

A number of states – Connecticut (7 percent), Indiana (18), Massachusetts (4.3), Michigan (11), Nebraska (109) and Ohio (7), as well as the District of Columbia (19) – experienced job losses in the overall economy from 1998 to 2007, but added green jobs.

The clean energy sector is poised to expand further, the report said, as consumers grow more environmentally conscious, investors infuse the market with more venture capital, and federal and state legislators adopt energy and environmental policy reforms.

The emerging clean energy economy is creating well-paying jobs in every state for people of all skill levels and educational backgrounds. In addition, the report shows that the jobs are not just temporary construction work but include lots of permanent positions, as well as high-income jobs. Plumbers, ma-

chinists, scientists, engineers, bankers and marketing consultants all contribute to the clean energy economy – with annual incomes ranging from \$21,000 to \$111,000, the report says.

There are almost 3,000 clean energy companies in Pennsylvania, according to the report, and 68,000 nationally.

Venture capital investment in clean technology crossed the \$1 billion threshold in 2005 and continued to grow, reaching about \$5.9 billion by the end of 2008. According to the report, Pennsylvania ranked eighth in venture capital for clean energy companies between 2006 and 2008, with an injection of \$233 million. California was once again # 1, with \$6.6 billion, followed by Massachusetts (\$1.2 billion), Texas (\$717 million), Washington (\$635 million), Colorado (\$622 million), Maryland (\$324 million) and New Jersey (\$283 million).

The report also discusses clean technology patents. The Commonwealth is one of the states that is an innovation leader, producing 241 patents over a 10-year period. In fact, Pennsylvania ranks 11th in the number of clean energy patents issued in the nation; behind # 1 California's 1,401. The lion's share – nearly 47 percent – of the clean-tech patents registered between 1999 and 2008 have been for batteries (although the number of battery patents is falling). The next largest share was fuel cells at 25.6 percent. Solar accounted for 8.7 percent.

The Pew Charitable Trusts is an independent non-profit and non-governmental organization. The report, *"The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America"*, can be found at: [http://www.pewcenteronthestates.org/uploadedFiles/Clean\\_Economy\\_Report\\_Web.pdf](http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf).

## Superfund Appropriations Need Closer Scrutiny

-- Craig D. Brooks, Executive Director

The superfund's "fragmented and uncoordinated approaches to managing accounts" have resulted in missed opportunities to clean up sites, including many areas where toxic substances were not contained or under control, according to a report released by the Office of the Inspector General (OIG). The report, *"Improved Management of Superfund Special Accounts Will Make More Funds Available for Clean-ups"*, suggests that the Environmental Protection Agency (EPA) had not effectively managed more than \$1.1 billion held in 819 separate superfund special accounts in the

EPA's 10 regional offices. This is almost equal to the program's \$1.1 billion budgetary appropriation for the fiscal year 2008.

Special accounts are set up to hold funds resulting from settlements reached with potentially responsible parties who have been ordered by the courts to pay for site cleanups. In its annual report to Congress, the Inspector General's office cited ongoing inconsistencies in managing special superfund accounts as one of the program's major management deficiencies. The latest report suggests that in 1990, 10 years after the superfund was first established by EPA under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), there were five special accounts with a balance of about \$1.9 million. As of May 31, 2008, there were 819 accounts with combined total balances totaling \$1.1 billion. CERCLA authorizes EPA to retain funds in special accounts for all future response actions, site costs and risks.

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### Among the OIG's recommendations is designation of a central management and action official for superfund special accounts

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According to the report, the superfund program's approach to managing the accounts lacked visibility, so that in many instances, neither the agency, Congress, nor the Office of Management and Budget, could clearly know how special accounts funds were being used. The report suggests that EPA itself did not know whether large sums of money were being properly managed.

According to the report, while EPA had addressed various aspects of managing special accounts, improvements in oversight and management of some accounts are needed to ensure agency guidance is being followed, and significant amounts of money are being properly managed to clean up superfund sites. The OIG recommended that the superfund program designate a central management and action official for superfund special accounts, and further recommended that EPA Regions 1, 2, 4, 6, 7 and 10 reclassify or transfer approximately \$6.6 million remaining idle in special accounts so that it can be put to better use.

EPA has generally agreed with the recommendations from OIG and the agency has proposed to establish a senior management committee which would operate under a charter. The agency has

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also undertaken considerable efforts to improve the management of special accounts and at the same time embrace improvements to the management of the superfund resource.

The EPA OIG's report is available at <http://www.epa.gov/oig/reports/2009/20090318-09-P0119.pdf>.

## Global Warming Pushing Birds Hundreds of Miles North

- Tony M. Guerrieri, Research Analyst

When it comes to global warming, the canary in the coal mine is not a canary at all. It is an American Goldfinch. As the temperature across the U.S. has gotten warmer, the American Goldfinch, a gregarious nesting bird, has been spending its winters about 200 miles farther north than it used to. The goldfinch's subtle shift is hardly unique. It is among scores of bird species that are moving northward as average temperatures across the United States get higher, according to a report by the National Audubon Society.

More than half (177 species or 58 percent) of the 305 most common North American bird species, a hodgepodge that includes robins, gulls, chickadees and owls, are spending their winters farther north than they did 40 years ago. More than 60 have moved in excess of 100 miles north. The report, *"Birds and Climate Change: Ecological Disruption in Motion"*, suggests that those shifts dovetail with warming trends in winter temperatures.

Over the 40 years covered by the report, the average January temperature in the United States has climbed by about 5 degrees Fahrenheit. That warming was most pronounced in northern states, which have already recorded an influx of more southern species and could see some northern species retreat into Canada as ranges shift.

Overall the wintering grounds of the birds have shifted an average of 35 miles north in cold months during the past four decades. But averages mask the extremes. Some individual species have moved much farther. Among waterbirds in the survey, the Red-breasted Mergansers topped the list at 317 miles. Among shore birds, the Black Turnstone moved up the map some 178 miles. And among land birds, the Spruce Grouse shifted north by 316 miles.

According to the report, land birds moved the most, almost a 50 mile northward shift in range,

more than twice the average change in any other bird group in the study. Among all land birds in the study, 64 percent showed significant northward movement, including more than 70 percent of all woodland birds and 70 percent of those that frequent feeders.

Not all land bird species went north. For example, a majority of grassland species, such as the Eastern Meadowlark, Burrowing Owl and Vesper Sparrow, have failed to move because their native grasses have disappeared leaving them no refuge, the report said.

More than half of the waterbird species (52 percent) moved north, including a wide variety of ducks, such as the Red-breasted Merganser, American Black Duck, and Green-winged Teal.

Coastal waterbirds did not move inland, primarily because they require saltwater or habitats found only near saltwater. However, many of these species (46 percent) still moved north, including the Black-bellied Plover and Black Turnstone (shorebirds), and Northern Gannet (a large fish-eating bird).

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**Many birds are moving north and the Audubon study suggests warming trends in winter temperatures have much to do with that**

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The Audubon report contains recommendations for national policies that will halve oil dependence, reduce greenhouse gas emissions and invest in renewable energy technologies. In addition, the report calls for policies that will help wildlife and ecosystems adapt to habitat changes.

The report is based on citizen-gathered data from the Christmas Bird Count Project, in which birders brave the cold early morning to visit predetermined sites where they record all the species they can find during a 24-hour period. The 109-year-old census provides the world's longest uninterrupted record of bird population trends. In recent years, more than 50,000 volunteers have turned out for the count at some 2,000 locations across the continent.

The 16-page Audubon Society report is available at: <http://www.audubon.org/news/press-room/bacc/pdfs/Birds%20and%20Climate%20Report.pdf>.

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## Reduction in Utility Demand Would Lower Carbon Emissions and Save \$\$

-- Craig D. Brooks, Executive Director

Implementing federal standards that require natural gas distributors and electric utilities to reduce energy demands could cut greenhouse gas emissions by 262 million metric tons and would save Americans more than \$168 billion on their utility bills, according to a report by the American Council for an Energy-Efficient Economy.

The report, "*Laying the Foundation for Implementing a Federal Energy Efficiency Resource Standard*", highlights the potential savings that the United States might attain through the adoption of a national Energy Efficiency Resource Standard (EERS). An EERS focuses on natural gas and electric utilities, encouraging continually increasing energy savings over time.

What is EERS and how does it work? According to the report, an EERS is a law requiring the use of energy efficiency, usually specifying how much energy needs to be saved per year. An EERS is similar in concept to renewable electricity standards (RES).

An RES requires utilities to obtain a certain amount of energy from renewable resources – wind, solar, biomass – while an EERS requires electric utilities and natural gas distributors to attain a required level of efficiency savings. Currently, these required savings occur on a state level and are passed into law by individual states. At the federal level, Congress would need to pass the EERS.

According to the report, the EERS typically specifies how much energy the state or utilities need to save, either on an annual basis or on a cumulative basis, or both. The energy savings targets are usually set low and gradually increase over time. The EERS standards mandate that utilities meet quantitative efficiency savings by providing financial incentives to help consumers reduce energy usage,

through improvements to distribution systems and other programs.

Such standards are in place in 19 states and legislation introduced in both chambers of Congress would require a resource standard that would require distribution utilities to demonstrate 15 percent electricity savings and 10 percent natural gas savings by 2020, according to the report.

The report suggests that this type of program has the effect of producing more energy without ever having to build a power plant, and is the most cost effective, money saving measure for consumers and the utilities.

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**An EERS typically specifies how much energy a state or utilities need to save, and are in place in 19 states**

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The federal EERS proposes to achieve a total of 15 percent electricity and 10 percent natural gas savings between 2011 and 2020. However, at this point, the current and anticipated state EERS actions are on track to encourage a 1.5 percent savings on natural gas and 5.10 percent on electricity savings for the same period.

According to the report, if the federal standard were to achieve the full 15 percent electricity savings and 10 percent natural gas savings, electricity savings would total 497 billion kwh, while natural gas savings would reach 924 trillion Btu's by 2020.

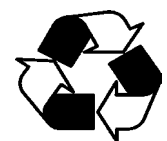
This level of savings, according to the report, would save American consumers \$228.1 billion (net) and create 310,500 net jobs. Additionally, the report suggests that 348 million metric tons of carbon dioxide emissions would be avoided – the equivalent of removing almost 64 million vehicles from the road in 2020.

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

The *Environmental Synopsis* is issued monthly.

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

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



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# ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS



- ✓ July 28-30 - Penn Atlantic Nursery Trade Show (PANTS 2009), Greater Philadelphia Expo Center, Oaks, PA, presented by the PA Landscape and Nursery Association (PLNA). Call PLNA at 800-898-3411 or visit [www.pantshow.com](http://www.pantshow.com) for details. On July 29, from 10 a.m. to 12 noon, as part of PANTS 2009, the Committee and the Senate Agriculture and Rural Affairs Committee (legislative session permitting) will hold a public informational hearing on green infrastructure and green industry.
- ✓ July 28-31 - 19th Annual Conference of the Professional Recyclers of Pennsylvania (PROP), Scranton Hilton and Conference Center, Scranton, PA. Contact PROP at 800-769-PROP or visit [www.proprecycles.org](http://www.proprecycles.org).
- ✓ September 21-25 - "Show Me the Money" Grant Workshop, sponsored by Community Partnerships Resource Conservation & Development Council (RC & D), Greater Susquehanna Valley Chamber of Commerce HQ, Shamokin Dam. Contact Community Partnerships RC & D at 717-248-4901 or e-mail [cpartnerships@cpartnerships.com](mailto:cpartnerships@cpartnerships.com) for information.

# Committee Chronicles . . .

REVIEW OF SOME MEMORABLE COMMITTEE EVENTS



*The Committee recently participated in the PA ReMaDe Expo 2009 sponsored by the PA Recycling Markets Center at Harrisburg's Whitaker Center. The well-attended expo featured a number of displays (see photo at right) by Pennsylvania recycling businesses and industries and provided a one-stop marketplace for recycled commodities and recycled content products.*



*Guest speakers at the first-ever expo included Committee Chairman Rep. Scott Hutchinson (photo at top left) and PA Department of Environmental Protection Secretary John Hanger (photo at bottom left).*



Another question the survey asked was, "If a lodge that provided both a restaurant and overnight accommodations on PA state park grounds was available, would you use it." Almost 60 percent (59.6 percent to be exact) said they would. It is interesting to note that the age group that expressed the strongest support for the lodge concept (67.3 percent in favor) was the youngest age group, those aged 18 – 34. The least support for the lodge idea came from the 65-plus group, with only 47.3 percent in favor. Sixty-three percent of the 35-49 age group were in favor and 59 percent of those aged 50-64.

Those with children under the age of 18 led the way in saying they would make use of a lodge (66.4 percent), followed by those with no children (56.3 percent). The idea was least popular with those who had children over age 18 (53.7 percent). Also, the greater the family income, the more who said they would use a lodge.

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**The June 2009 *Environmental Synopsis* with the complete statewide results can be found on the Committee website at <http://jcc.legis.state.pa.us>**

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In regard to the question "If PA state parks were to charge a daily entrance fee, would you be willing to purchase an annual 'Pennsylvania State Park Pass' that would allow you access to all 117 state parks as often as you like" (which received a 53.2 percent negative response), the only responses of more than 50 percent in favor came from five sub-groups. They are households with a greater than \$50,000 annual income (51 percent in favor), those who live in an urban setting (50.8 percent in favor), those with children under age 18 (50.4 percent in favor) and those who resided in the Northeast and Southeast parts of the state (59.7 percent and 51.9 percent in favor respectively).

Geographically, the Northeast region had the most state park visitors in the past year with 64.8 percent having visited. The Northwest was next with 58.4 percent. Every other region, except the Southeast (46.9 percent), was greater than 50 percent.

The favorite state park activity was hiking/walking in every geographic region of the state, save the Southwest where picnicking edged hiking/walking by about three percent. Picnicking was second in the Northeast and Southeast, while camping took second in the Northwest and Central regions.

Although the raw numbers were small, the Central region was where you would also find the most swimmers, fishermen and bird/wildlife watchers (tied with the Southwest in that category). The boating honors went to the Northwest region.

Such things may be "small", to use Cervantes' words, but they provide an interesting snapshot of some of what state parks mean to Pennsylvanians.

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