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The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman

July was a good month for recreation in my home county of Venango. And, what happened in Venango has happened, can happen, and undoubtedly will happen again in Pennsylvania.

The good news is that the National Park Service and the Rails-to-Trails Conservancy visited Oil Creek State Park in Venango County on July 19 to celebrate a National Recreation Trail designation there. Officials from the Pennsylvania Department of Conservation and Natural Resources (DCNR) joined in the "designation party" at the park's Multi-Use Trail, as did hundreds of bicycling enthusiasts participating in the Pennsylvania Greenways Sojourn from Erie to Pittsburgh's outskirts. The sojourn is sponsored by the Rails-to-Trails Conservancy.

See Committee Chronicles on page 7 for some photos of the national trail designation celebration

While I am excited about the designation because the Oil Creek State Park and its trail system are part of my district, I am also excited because the event at Oil Creek is emblematic of a much larger network that stretches across Pennsylvania and the nation. The Oil Creek National Recreation Trail designation makes it the 47th such trail in Pennsylvania to achieve that distinction. And, nationwide there are more than 900 trails totaling more than 10,000 miles in all 50 states.

The system of national trails was created by the National Trail System Act of 1968. It authorized creation of a system that includes recreation trails, scenic trails and historic trails. While the scenic and historic trails can only be designated by act of Congress, recreation trails, like the one in Oil Creek State Park, may be designated by the U.S. secretaries of the Interior and Agriculture.

The designation of recreation trails brings with it benefits like promotion, technical assistance, networking and access to funding. Ultimately, the goal is to create a nationwide network of trails and realize the vision of "Trails for All Americans."

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In This Issue...

Joint Legislative Air and Water Pollution Control and Conservation Committee

NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, DIRECTOR

For as long as soda has been sold in bottles, finding broken glass on beaches has been the nemesis of beachgoers and sunbathers alike. But innovation and technology may change that. Several pilot projects are in the works to put tons of the stuff onto eroding beaches.

At first, an initial reaction might be: "Recycled glass on beaches? Are you kidding? Sanitation workers have been trying for years to rid beaches of broken glass, and now there's talk of putting it there intentionally". But there's a twist…when ground into powder, the glass has the same texture as sand.

Is the use of recycled glass in beach replenishment a long-term answer to both increasing glass recycling and reducing beach erosion?

Because glass is one of the most challenging materials to recycle, officials in Broward County, Florida began searching for a more cost-effective way to recycle and market mixed cullet – the industry term for broken glass. Beach replenishment was found to be a potential end use for the glass because it has similar physical and chemical characteristics as natural sand.

Broward County beaches, as with many coastal areas, are in a constant state of erosion. Coastal management programs replace millions of cubic yards of sand on beaches annually, with a price tag to match. Using recycled glass as a supplement to sand for beach replenishment could create a win-win situation for everyone involved. It has the potential to reduce costs compared to natural sand as well as eliminate a waste disposal problem.

Broward County processes about 13,000 tons of glass each year through its materials recovery facility and pays a fee to process and market the glass. This amounts to about $145,000 each year. But as the county searches for ways to increase recycling levels to meet state recycling goals, this amount is expected to increase.

In January of last year, Broward County began a multiphase pilot project to determine whether recycled glass could be used as a supplement to natural sand to halt some of the erosion and help beach replenishment efforts. While it's not expected to replace sand, the recycled glass will be targeted toward erosion "hot spots" and mixed with natural sand in the hopes that the recycled glass will extend the life of replenishment projects.

Samples of sand and processed glass have been analyzed to determine if size distribution, grain and chemical content are compatible to natural sand. Also, samples were analyzed for fecal coliform, lead, mercury and petroleum hydrocarbons. All results were found to be within acceptable limits specified for sand. So based on the findings, it appears that using glass cullet for beach replenishment is technically feasible and publicly acceptable.

After demonstrating no adverse impacts to wildlife, the project will be evaluated for its benefits to erosion and commercial viability. Initial results are encouraging and show great potential for communities where glass is more costly to recycle than the revenue it generates. In addition, this could provide a solution to long-term beach erosion problems in coastal areas.

PA Trivia Question

What is Pennsylvania's leading crop?

(Answer on page 6)

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.

NOAA Report Examines Population and Development Trends in Coastal Areas

-- Tony M. Guerrieri, Research Analyst

Coastal areas are crowded and becoming more so every day. In 2003, over 153 million people lived in 673 coastal counties along the Atlantic and Pacific Oceans, Gulf of Mexico, and Great Lakes. According to a report by the National Oceanic and Atmospheric Administration (NOAA), the nation's coastal counties have grown by 33 million people since 1980 (or 28 percent) and are expected to add another 12 million people by 2015, raising concerns about environmental degradation and emergency management.

The report, *"Population Trends Along the Coastal United States: 1980-2008"*, examines underlying and emerging trends that are shaping the coast, coastal resources and uses, and coastal management and policy. Past and projected trends are presented in population and development.

For example, the coastal population within the Pacific region showed the largest gain between 1980 and 2003, with almost 12 million people, followed by the Northeast with eight million people. The Southeast region, however, exhibited the largest rate of change with a 58 percent increase, followed by the Pacific at 46 percent, and the Gulf of Mexico at 45 percent.

In terms of total population growth between 1980 and 2003, California led in coastal population growth with 9.9 million. This represents an increase of 1,179 persons every day in California's coastal areas. The coastal population change in Florida ranks second, accounting for an additional 7.1 million people. Other leaders in coastal population change included Texas (2.5 million), Washington (1.7 million), and Virginia (1.6 million).

The NOAA report points out that Florida had the largest percentage increase in population in coastal communities, 75 percent or 7.1 million additional people. Alaska and Washington also show high rates of growth, increasing by 63 percent and 54 percent, respectively.

Coastal areas are more densely populated than the rest of the nation, according to the report. In 2003, an average of 300 people inhabited every square mile of coastal land (excluding Alaska, which was factored out of most analysis in the report because of its long coastline and small population). The coastal population density is three times the national average (98 persons per square mile). New York City's counties are the most densely populated in the nation, averaging almost 39,000 persons per square mile.

Coastal counties are not growing faster than the nation as a whole, but they house more than half the nation's population (about 53 percent) packed into only 17 percent of the country's land area, excluding Alaska, the report said.

The nation's coastal counties have grown by 33 million people since 1980... and are expected to add 12 million more by 2015

Coastal areas are popular vacation and retirement destinations. In 2000, coastal counties contained 52 percent of the nation's total housing supply, led by California, Florida and New York, which comprised 41 percent of the coastal county total. In 2000, there were approximately 2.1 million seasonal homes in coastal counties (54 percent of the nation's total). Florida had the largest number of seasonal housing units, 24 percent of the coastal county total, followed by Michigan, California, and New York. Several coastal counties with low populations have also emerged as popular seasonal/vacation destinations. There are large numbers of seasonal homes in Maine, the Outer Banks of North Carolina, northern Michigan, Maryland and Delaware.

Other notable findings from the NOAA report include:

• More than 1,540 single-family housing units are permitted for construction every day in coastal counties.

• Between 1980 and 2003, people ages 35 to 54 increased from 21 percent of coastal residents to 30 percent, while the proportion ages 18 to 24 fell from 13 percent to nine percent.

• The median income in coastal counties is approximately 17 percent higher than in non-coastal counties.

• States leading in coastal population growth (persons per square mile) are Illinois (4,330); New Jersey (1,208); Rhode Island (1,030); Massachusetts (939); Pennsylvania (794); Connecticut (719).

• Of the 474 counties nationwide that did not meet the federal eight-hour ozone standard (or causing a downwind county to exceed it), 231 are coastal counties. Most of them are in the Northeast and the Great Lakes regions.

• Each day, coastal counties are losing 1,997 acres of farmland to urban and other land uses, about two percent faster than non-coastal counties. The average size of farms in coastal counties has decreased by 15 percent between 1987 and 2002, about twice the rate of decrease (seven percent) in non-coastal counties.

• The Pacific region's 9.6 billion gallons of daily water consumption is more than twice that of any other region other than the Gulf of Mexico region (six billion gallons a day).

• Coastal counties consume 20 billion gallons of water per day, four times less than the total water consumption in non-coastal counties.

There are 673 coastal counties: 285 in the Atlantic, 142 in the Gulf of Mexico, 88 in the Pacific and 158 in the Great Lakes. The report, an update of one done a decade ago, considers a county coastal if it is on a coast or at least 15 percent of the county's land area is in a coastal watershed.

The National Oceanic and Atmospheric Administration report, *"Population Trends Along the Coastal United States: 1980-2008"*, is available on the Internet at: http://www.nos.noaa.gov/programs/mb/pdfs/coastal_pop_trends_complete.pdf.

Price Tag for Infrastructure Needs Rises

– Craig D. Brooks, Executive Director

Drinking water utilities will need approximately $227 billion for infrastructure upgrades, construction and rehabilitation over the next 20 years, according to a report by the U.S. Environmental Protection Agency (EPA). The report, *"Drinking Water Infrastructure Needs Survey and Assessment: Third Report to Congress"*, exceeds the estimates of the two previous reports issued in 1997 and 1999 by more than 60 percent.

The 2003 needs survey reflects data collected in 2003 and is based on information collected from approximately 53,000 community water systems and 21,400 not-for-profit, non-community water systems. It represents the collective efforts of the states, EPA and thousands of waters systems, all of which participated in identifying and documenting infrastructure needs. The needs surveys are used by EPA to distribute funds from the Drinking Water State Revolving Loan Fund to states based on their needs. The federal allocations allow states to administer low-interest loans to water utilities for infrastructure improvements and upgrades. Among the needs reported in the survey are projects to protect public health, preserve the physical integrity of water systems, convey treated water to homes and commercial and industrial facilities, and to ensure continued compliance with regulations contained in the Safe Drinking Water Act.

Because public water systems continually install, upgrade and replace the infrastructure, the projects reported in the 2003 survey range from the replacement of short sections of deteriorated water mains to the construction of large-scale, state-of-the-art treatment plants that produce drinking water from sea water. Many projects were identified as current needs and many more will occur over the next two decades as existing infrastructure reaches the end of its useful life.

The findings of the two previous reports conducted by EPA suggest that the needs were most likely underreported because of limitations of community and non-community system planning documents. Also, changes were made to the most recent assessment criteria to ensure a more complete survey of the 20-year need.

According to the survey, the nation's 1,041 largest community water systems (those serving populations greater than 50,000 people) account for the largest percentage of need with 44 percent, or $122.9 billion. Medium and small community water systems (those

systems serving populations up to 50,000 people) also have substantial needs, $103 billion and $34.2 billion respectively. The needs of not-for-profit community water systems account for $3.4 billion in infrastructure upgrades and improvements.

Every project in the 2003 Needs Assessment belongs to one of five categories: transmission and distribution, treatment, storage, source and "other". According to the survey, with all sizes of water systems combined, transmission and distribution constitutes the largest category of need, accounting for almost two-thirds ($183.6 billion) of the total need. This means that utilities need to install and maintain distribution systems to provide potable water to their customers while preventing contamination prior to delivery. Failure of transmission and distribution can lead to the disruption of delivery, resulting in loss of pressure and possible backflow of contaminated water into the system. Broken transmission lines can also disrupt the treatment process.

The estimated cost of needed drinking water utility upgrades, construction and rehabilitation over the next 20 years is $227 billion – 60 percent more than the estimates of two previous reports

Treatment projects represent the second largest category of need, representing $53.2 billion or nearly one-fifth of the total need. These projects involve installation and rehabilitation of filtration, disinfection, aeration and corrosion control measures to reduce and eliminate contaminants.

The total 20-year need for storage projects is $24.8 billion and $12.8 billion for the source category. Storage projects include the construction and rehabilitation of existing finished water storage tanks. Many of the projects involve rehabilitating existing tanks to prevent structural failures and prevent sanitary problems. Protecting the sources of surface and groundwater supplies includes the installation and rehabilitation of drilled wells and surface water intakes.

"Other" needs account for an estimated $2.3 billion for those needs that cannot be assigned to one of the major categories and often include emergency power generators, computer and automation equipment and projects for security systems.

Because the SDWA requires that public water systems meet certain requirements to protect public health, the 2003 Needs Assessment promotes those public health objectives as well as the ability to provide essential water service to customers. The estimated needs directly associated with existing SDWA regulations (including the most recently promulgated Arsenic Rule that will take effect in January 2006) are $35.2 billion. This includes protection from microbial and chemical contaminants. Projects that address microbiological contaminants comprise 86 percent of the total existing regulatory need, or $30.2 billion. Protection from chemical contaminants comprises 14 percent or $5 billion of the total existing regulatory need.

The needs assessment was unable to adequately capture the cost of anti-terrorist safeguards

All of these systems have only recently begun to address a more aggressive approach to security needs to identify and protect systems from terrorist activities. Because this issue is an evolving process, the Needs Assessment was not able to adequately capture the specific needs or document corrective actions and costs. The Needs Assessment estimated the total security need at $1 billion, however future assessments will be able to give more accurate information.

EPA's *"Drinking Water Infrastructure Needs Survey and Assessment: Third Report to Congress"*, is available at http://www.epa.gov/safewater/needssurvey.

Report's Top Ten Power Plant Polluters in Northeast

- Tony M. Guerrieri, Research Analyst

Carbon dioxide, one of several greenhouse gases that contribute to climate change, is released into the atmosphere when fossil fuels (oil, natural gas, and coal) are burned. Ten power plants in the northeast last year produced a third of the region's carbon dioxide emissions, considered a major contributor to global warming, according to a report by a coalition of environmental groups.

The report, *"More Heat Than Light: Global Warming Pollution From the Northeast's Dirtiest Power Producers"*, indicates that Brayton Point Station, a predominantly coal-fired plant in Somerset, Massachusetts, was the top emitter of carbon dioxide.

Brayton Point released 5.7 million metric tons of carbon dioxide into the air in 2004, representing nearly five percent of the total amount released in the nine-state

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region. Brayton Point also released more than 29,000 tons of sulfur dioxide and more than 9,500 tons of nitrogen oxides in 2004, contributing to soot, smog and acid rain. Two other Massachusetts power plants – the Canal plant in Sandwich, Massachusetts and the Mystic plant in Everett, Massachusetts – were also included, along with six plants in New York and one in New Jersey.

There were 188 electricity producers operating in the nine northeastern states in 2004, according to the report prepared by the National Association of State Public Interest Groups, the Clean Water Fund and Environmental Advocates of New York.

The top 10 companies owning power plants were responsible for more than 60 percent of all global warming pollution from NE power plants in 2004

Together, they released more than 120 million metric tons of carbon dioxide. The ten highlighted in the report accounted for 38.8 million metric tons – 33.1 percent of the total.

The report also analyzed plant-by-plant data and found that the 50 dirtiest power plants of the region's 188 emitted 80 percent of the sector's global warming pollution while only producing 45 percent of the region's energy. Twenty-two of the 50 dirtiest plants, or 44 percent, were located in New York. Six of those facilities were in the top ten.

According to the report, a small number of companies own the most polluting power plants. The top ten companies were responsible for more than 60 percent of all global warming pollution from Northeast power plants in 2004 (out of 72 total companies owning power plants).

The report suggests that many of these plants are inefficient, releasing nearly twice the regional average for carbon dioxide per unit of power generated. It adds that the generators' age and their use of dirtier energy sources such as coal and oil are the main reasons why they release such high volumes of carbon dioxide.

The worst carbon dioxide emitters are also the largest sources of soot and smog pollution. In 2004, the top 50 plants (accounting for 80 percent of power-sector global warming pollution) also emitted:

- 90 percent of the region's power-sector emissions of sulfur dioxide, which causes acid rain and soot pollution; and
- 81 percent of the region's power-sector emissions of nitrogen oxides, which contribute to smog.

The report recommends reducing by one-quarter the carbon dioxide emissions from northeast power plants by 2020, and called on the region's governors to enact a reduction plan.

The nine states in the study include Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Delaware.

The report used data from the federal Department of Energy on facility fuel use during 2004. The rankings for the power producing companies are based on "carbon efficiency" ratings, which were derived by dividing the amount of carbon dioxide emitted by each entity by the amount of energy that entity generates. The rankings for the power plants were based on the total amount of carbon dioxide emitted by each plant.

The report, *"More Heat Than Light: Global Warming Pollution From the Northeast's Dirtiest Power Producers"*, can be found at: http://www.eany.org/reports/MoreHeatThanLight.pdf.

Answer to *PA Trivia* Question

Mushrooms

Source: Pennsylvania Trivia, compiled by Ernie and Jill Couch, Rutledge Hill Press

On the Horizon . . .

A LOOK AT UPCOMING EVENTS

✔ **Tuesday, October 4 and Wednesday, October 5, Radisson Penn Harris Hotel & Convention Center, Camp Hill – Keep Pennsylvania Beautiful 2005 Summit and Workshop. JCC Chairman Rep. Scott Hutchinson will offer welcoming remarks. Learn more about a strategic approach to roadside aesthetics in PA through plenary and breakout sessions. Call Keep PA Beautiful at 717-214-7901 for registration or register online (after September 1) at www.keeppabeautiful.org.**

✔ **Monday, October 24, 12 noon, Room 205, Matthew J. Ryan Building – Environmental Issues Forum. Representatives of the PA Recreation and Park Society (PRPS) and Pa Department of Conservation and Natural Resources (DCNR) will make a presentation on the implementation of a statewide recreation plan.**

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

Committee Chronicles . . .

REVIEW OF SOME COMMITTEE MEMORABLE EVENTS

The photos below are scenes from the National Trail Designation celebration at Oil Creek State Park as described in Rep. Hutchinson's "Chairman's Corner" article.

Smile, Everyone… *Participants in the celebration and bike ride pose for a commemorative photo. Left to right are: Venango County Commissioner Gary Hutchison; Tom Sexton of the Rails to Trails Conservancy; Venango County Commissioner Larry Horn; National Park Service's David Lange; Oil Region Alliance board member Jim Hawkins; Oil Creek State Park Manager Holly Best; Oil Region Alliance board member Janet Aaron; Rep. Scott Hutchinson; Barb Ives of U.S. Congressman John Peterson's office; and Titusville Area Arts Council Executive Director Penny Gustafson.*

Greenway Sojourn… *Participants in the Greenway Sojourn, part of the day's festivities, take a break from biking to observe the trail designation ceremony.*

(Photos on page 7 and 8 courtesy of Dan Peterson, Oil Creek State Park)

Much like the state of Pennsylvania itself, the locations, types and sizes of the designated trails in Pennsylvania are diverse. For every rural trail like Oil Creek there is an urban trail – like Philadelphia's Fairmount Park Bike Path. For every one mile trail like John Bartram's Garden, there is a lengthy trail like the 204 mile long Great Allegheny Passage. And there is just about any length in between. The longest in Pennsylvania is the U.S. Route 6 Grand Army of the Republic Highway in the state's northern tier – 410 miles.

Some trails are rail trails. Some, like the Black Willow Trail or the Schuylkill River Water Trail, are water trails, where one can canoe, kayak and enjoy other aquatic recreation. Some trails are part of the state's system of greenways. Some, like the Montour Trail, combine a number of types of recreation such as walking trails, biking trails and snow trails. There are also backcountry trails such as the Tracy Ridge Trail in the Bradford Ranger District.

I am pleased to see that a number of the trails, Oil Creek among them, are part of or complement other forms of recreation. Oil Creek, for example, lies smack dab in the middle of the Oil Heritage Region, which recently received its own national designation and, of course, in the middle of the state park. Others lie within the borders of heritage areas, state parks, national historic areas and in the case of the Black Cherry Trail, within the Allegheny National Forest.

The point is that tourists and Pennsylvania residents alike can enjoy a diversity of recreational experiences all at the same time and in the same place. Our tourism industry is important and we should seek to coordinate experiences such as these to continue to build the industry and create jobs. The different regions should seek each other out and work to cooperate to create more wonderful Pennsylvania experiences. Pennsylvania trails often lead to doors that open to a plethora of different recreational opportunities, all within hailing distance of each other. Designations like the National Recreation Trail unlock and open these doors to everyone.

To learn more about the National Recreation Trail system, go to the National Park Service website at www.nps.gov/nts/nrt.html. And don't forget to come and visit us at Oil Creek State Park and the Oil Heritage Region. There's plenty of summer left to enjoy Pennsylvania's trails.

Look Out, Lance… *Rep. Hutchinson shows off his "traumas of the trail" after completing the bike ride from Titusville to Petroleum Center. The JCC chair survived a spill during the ride and, in his own words, "…just jumped back on the bike and pedaled harder", breaking out of the pack to cover nine miles in 25 minutes to arrive in time for the trail designation ceremonies. We can only wonder where his yellow jersey is as leader of the tour and suspect that Lance Armstrong is glad he has retired before having to take Rep. Hutchinson on.*

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