

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



A recent study reported upon by Resources for the Future delves into the components and levels of success of open space conservation referenda across America. The study reveals some interesting data and trends and has led to a more in-depth study, still in the works, of land conservation balloting and how and why it works or doesn't work.

In This Issue...

- The Chairman's Corner p. 1
- Notes From the Director p. 2
- Research Briefs..... p. 3-6
- ✓ Cloudy Waters the Rule on Water Permits
- ✓ Pesticide Levels Within Limits
- ✓ Businesses and Climate Change
- ✓ Clean Water State Revolving Fund Report
- On the Horizon p. 7
- Committee Chronicles p. 7

It may interest you to know that between 1997 and 2004, more than 1,100 (1,102 to be exact) referenda for the conservation of open space appeared on state, county and municipal ballots across the United States. While the ballot questions encompassed every level of government over 40 states, there is a definite concentration in the Northeast.

As a matter of fact, four of the top six states are northeastern states in terms of number of referenda. Massachusetts is the runaway winner with 157. While Colorado is second with 72, the remainder of the top six are all from the east coast with three of the four from the Northeast: New York (56), Pennsylvania (55), Florida (45) and New Jersey (35).

The next six states in order are – with one exception – all from the Northeast or neighboring Midwest states. They are Illinois (34), Michigan (32), Connecticut (29), Texas (the “lone star” geographic exception with 29), Ohio (26) and New Hampshire (25).

According to the study, this kind of geographic concentration should not be surprising. The study notes that there are two key variables at play in determining where referenda are likely to occur, and the continuing study is seeking to refine what we know about these variables. One variable is the demographic makeup of residents or particular areas. Factors such as age, income, education and homeownership have much to do with predisposition toward conservation issues. As aging populations retire and often move away, younger, well educated individuals look to establish new homes and new businesses, creating a different dynamic in such issues as community development and values and family amenities.

(continued on page 8)

NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR

There's good news from the states regarding State Wildlife Action Plans. States have made considerable progress in developing and submitting plans to address threats to wildlife to the extent that all 50 states and the majority of U.S. Territories have plans in place.

The State Wildlife Program and the corresponding action plans were developed six years ago when the Department of Interior Appropriations Act authorized the creation of the State & Tribal Wildlife Grant Program. It is now an annual appropriated funding source for states to address a broad range of wildlife and associated habitats in a comprehensive fashion. The plans, which all states submitted in time for an October 2005 deadline, were a requirement for continued eligibility for the State Wildlife Grants Program administered by the U.S. Fish and Wildlife Service.

These plans are intended to help conserve wildlife generally, and non-game wildlife in particular, and to help prevent the need to list more endangered species. To meet federal requirements, each state plan must contain information on low and declining populations of wildlife and the habitats they require, identify problems that affect these populations, identify research and survey efforts to improve their conservation efforts and determine actions and priorities.

Once a plan is approved, it allows states and territories to continue to receive grants. To date, the FWS has provided nearly \$400 million in grants to states and territories for conservation efforts since the program was created. The plans

are revised and updated at least once every 10 years.

When the program was first created, only five states had done a statewide assessment of biodiversity and a plan for conservation. Now there are 56, and 12 have been singled out for model conservation plans – Florida, Georgia, Illinois, Massachusetts, Nebraska, New Hampshire, New Jersey, New Mexico, North Carolina, Oregon, Tennessee and Virginia. These 12 plans were

recognized because they demonstrated a clear commitment to follow through on new and existing programs, included maps of focus areas for conservation and established clear goals and priorities.

The history of the State Wildlife Grants Program goes back as far as 1980 when

Congress passed the Fish and Wildlife Conservation Act. That law, like the State Wildlife Grants, was designed to focus on declining species not already protected by the Endangered Species Act.

The Fish and Wildlife Conservation Act didn't generate any long-term benefits and suffered from a lack of funding. Twenty years passed before attention was once again focused on this effort, and in the interim, states had already developed their own non-game programs and funding programs such as Pennsylvania's Wild Resources Conservation Fund.

FWS will distribute \$63.2 million in grants for 2006 for states and territories to implement approved action plans. States may use that money for either planning or project implementation activities.

Fifty-six states and territories have done statewide assessments of biodiversity and formulated plans for conservation

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.

62 Percent of Sewage Plants, Factories Violate Clean Water Act

– Tony M. Guerrieri, Research analyst

More than 62 percent of industrial and municipal facilities across the country discharged more pollution into waterways than their Clean Water Act permits allowed between July 2003 and December 2004, according to a report by the U.S. Public Interest Research Group (PIRG).

The report, *"Troubled Waters: An Analysis of Clean Water Act Compliance"*, shows that the 10 states exceeding Clean Water Act permit limits the most were Ohio, Texas, New York, Pennsylvania, Louisiana, Tennessee, Indiana, West Virginia, Massachusetts and Illinois.

The states that allowed at least 100 exceedances of at least 500 percent were Ohio, Indiana, Pennsylvania, New York, Tennessee, Texas and Massachusetts.

Using the Freedom of Information Act, PIRG obtained data on major facilities' compliance with their National Pollution Discharge Elimination System (NPDES) permits between July 1, 2003, and December 31, 2004. PIRG researchers found that polluters repeatedly exceeded their permits, often by egregious amounts. The average facility discharged pollution in excess of its permit limit by more than 275 percent, or almost four times the legal limit.

Nationally, 436 major facilities exceeded their Clean Water Act permits for at least half of the monthly reporting periods between July 1, 2003 and December 31, 2004. Thirty-five facilities exceeded their Clean Water Act permits during every reporting period.

Around the country, Northeast states were among those with the highest percentage of major facilities violating their clean water permits, including Rhode Island, Connecticut, New York, New Hampshire and Maine. Sewage treatment plants

in the East generally tend to be older and less efficient at cleaning up waste. States with the lowest percentage of violators included Nevada, Montana, Virginia and Minnesota.

Pennsylvania ranked 32nd in a national survey of facilities releasing more than their allowed limit of pollutants into local waterways. Almost six in every 10 (or 58 percent) of Pennsylvania's major factories and sewage plants have violated the federal Clean Water Act by releasing pollution into the state's rivers, lakes and streams.

The 3,700 major facilities exceeding their permit limits reported that they did so more than 29,000 times. This means that many facilities exceeded their permits more than once and for more than one pollutant.

Where does Pennsylvania stand in terms of clean water permit violations?

The eight counties with the most facilities exceeding their Clean Water Act permits at least once in this 18-month period included three in Connecticut, the most in any one state – New Haven County, Hartford County and Fairfield County. The other five counties with large numbers of facilities exceeding their permit limits were: Harris County, Texas, where the city of Houston is located; Worcester County, Massachusetts, in the Boston area; Allegheny County, Pennsylvania, in the Pittsburgh area; Calcasieu Parish, in southwestern Louisiana; and Erie County, New York, where the city of Buffalo is located.

The Clean Water Act has helped clean up the nation's waterways since it was created in 1972. At the time, the objectives of the environmental measure were to eliminate the discharge of pollutants into the waterways by 1985 and improve upon the waters for recreational activities such as swimming and fishing. Currently, 39 percent of rivers, 46 percent of lakes, and 51 percent of estuaries have not met that goal.

The West Coast had to be excluded from the report because the EPA said the data it has received in recent years from California, Washington and Oregon has been incomplete and unreliable.

In order to achieve the goals of the Clean Water Act, the PIRG report recommends increased funding for the EPA and allowing the agency to “put more environmental cops on the beat to identify and punish polluters.” It also recommends full funding of the Clean Water Act State Revolving Fund to help communities upgrade their sewer systems.

The PIRG report, *“Troubled Waters: An Analysis of Clean Water Act Compliance”*, is available at: <http://uspirg.org/reports/troubledwaters06.pdf>.

Pesticides in Groundwater, Streams, Rivers Do Not Exceed Standards

– **Craig D. Brooks, Executive Director**

A decade-long assessment of the nation’s water quality confirms that pesticides are present in groundwater wells, streams and rivers in urban and agricultural areas, but the levels do not exceed water quality standards for human health.

The levels could, however, pose a threat to aquatic life or fish-eating wildlife, according to a study by the U.S. Geological Survey. The study represents the agency’s National Water Quality Assessment Program’s first decade of water quality studies conducted between 1992 and 2001 in 51 major river basins that best represented agricultural, urban, mixed use, and undeveloped settings across the United States.

Water samples were analyzed for 83 pesticides in 186 streams within the 51 river basins and 5,047 groundwater wells. Bed sediments were also analyzed from 1,052 streams and fish samples from 700 streams.

The study found that “occurrence does not mean human health effects” and reached the following conclusions:

- Streams located in agricultural, urban and mixed settings showed more than 90 percent occurrence of one or more pesticides (or their chemically degraded products) whereas streams in undeveloped areas showed a 65 percent occurrence rate.

- Groundwater wells in agricultural areas showed the presence of one or more pesticides of at least 61 percent, urban wells showed a detectable level of 55 percent, mixed use areas showed a 33 percent occurrence and undeveloped areas showed a 29 percent occurrence rate.

- Nearly one in 10 agricultural streams and seven in 10 urban streams showed levels of one or more pesticides, exceeding human health benchmarks.

- About 100 domestic and public water supply wells showed one or more pesticides exceeding human health benchmarks. The pesticide most commonly found was dieldrin (which is no longer used).

- More than 80 percent of both agricultural and urban streams showed levels of at least one pesticide exceeding water quality benchmarks for fish-eating wildlife.

- More than 80 percent of urban streams and more than 50 percent of agricultural streams had concentrations in water of at least one pesticide that exceeded a water quality benchmark for aquatic life.

- The pesticides most commonly detected in bed sediments and fish in urban and agricultural areas, such as DDT, dieldrin and chlordane were no longer in use.

- Three herbicides used mainly on farms – atrazine, metolachlor and cyanazine, were most detected in agricultural streams.

- Three herbicides used commonly in cities – simazine, prometon and tebuthiuron, showed up more often in urban streams.

The USGS has already begun work on the second cycle of its national assessment study. This phase would assess transport of chemicals in agricultural streams through the hydrologic system and measure the potential effects of chemicals and other water quality disturbances on human and aquatic ecosystems.

The study, *“Pesticides in the Nation’s Streams and Ground Water, 1992-2001”*, is available at <http://water.usgs.gov/pubs/circ/2005/1291>.

Report Rates Corporate Action on Climate Change

– Tony M. Guerrieri, Research Analyst

Whether actions taken by businesses to respond to climate changes are economically damaging or economically productive is hotly debated. However, according to a report by the Coalition for Environmentally Responsible Economies (CERES), a number of companies have made important strides in addressing greenhouse gas emissions. The CERES report, *“Corporate Governance and Climate Change: Making the Connection”*, profiles 76 U.S. companies and 24 foreign companies in ten carbon-intensive business sectors.

The report’s “Climate Governance Checklist” identifies 14 action items to evaluate how 100 major industrial corporations are addressing climate change in five broad areas: board oversight, management performance, public disclosure, greenhouse gas emissions accounting and strategic planning.

Using a 100-point scoring system, the report ranked the leading companies with operations in the United States in the electric power, oil and gas, autos, chemicals, industrial equipment, metals and mining, coal, food products, forest products and air transportation sectors. The scoring system is broken down as follows:

- Up to 12 points for establishing explicit board oversight over climate change strategies;
- Up to 18 points for management’s clear articulation of the company’s position on climate change and for having management incentives in place;
- Up to 14 points for clear disclosure of greenhouse gas emissions and risks;
- Up to 24 points for carefully monitoring corporate greenhouse gas emissions; and
- Up to 32 points for setting targets and undertaking emission reductions.

Among the ten business sectors evaluated, the chemical sector had the highest average score (51.9) followed by the electric power sector (48.8) and the auto industry (47.9). Mid-scoring sectors included industrial equipment (42.5), metals and mining (42.2) and forest products (37.2). Low climate governance scores were prevalent among oil and gas (34.8), the coal industry (21.4) and the food industry (17.6). The airline industry as a whole scored the lowest on the checklist (16.6)

The report also lists companies in different sec-

tors; for example BP (oil and gas sector) was the highest-rated company in the report and scored 90 out of 100. DuPont (chemical sector) was the top-rated U.S. company and second best score overall with 85. In the other sectors, the U.S. utility American Electric Power (electric power) scored 73, Toyota (auto industry) scored 65, General Electric (industrial equipment) scored 58, Rio Tinto (coal) scored 57, Alcan (metals and mining) scored 77, International Paper (forest products) scored 49, Unilever (food products) scored 49 and United Parcel Service (airline industry) scored 30.

At the bottom of the scale, PPG (21), Constellation (23), Nissan (33), Deere (14), Phelps Dodge (6), Georgia-Pacific (26), Williams (3), Foundation (5), ConAgra (4) and UAL (3) were the laggards in their respective sectors.

Yet for all of the positive momentum in elevating climate as a governance priority, most American companies lag behind their international peers, according to the report. Foreign companies such as BP, Toyota, Alcan, Unilever and Rio Tinto had the highest scores in five of the nine sectors that included both U.S. and foreign firms. American companies – DuPont, General Electric, International Paper and United Parcel Service – led in the other four sectors. In the electric power sector, only American companies were analyzed.

In addition, the report provides a case study profile for each company. The case studies outline what each company is doing to address climate change through proactive and innovative measures including: setting targets for greenhouse gas emissions reductions; implementing innovative energy supply and demand solutions; improving waste management practices; participating in emissions trading and investing in carbon sequestration opportunities and research. For example, DuPont, the leading scorer among U.S. firms, has reduced its greenhouse gas emissions 72 percent since 1990 and developed a number of forward-thinking commercial products.

The report uses data from securities filings, company reports, company websites, third-party questionnaires and direct company communications.

The report was commissioned by CERES, a coalition of investors, environmental and public interest groups, and written by the Investor Responsibility Research Center, an independent firm that advises institutional investors. The report, *“Corporate Governance and Climate Change: Making the Connection”*, is available on the Internet at: http://www.ceres.org/pub/docs/Ceres_corp_gov_and_climate_change_0306.pdf.

Wastewater Treatment Plants Received \$50 Billion Since 1988

Craig D. Brooks, Executive Director

Wastewater treatment facilities have received \$50 billion in financial assistance from the Clean Water State Revolving Fund (SRF) for upgrades and repairs since the program began in 1988. According to a report by the U.S. Environmental Protection Agency's (EPA) annual state revolving fund, this represents about 94.1 percent of the total of \$52.7 billion in revolving loan fund money that has been spent during that period. The report says that the remaining 5.9 percent has been spent on projects to control pollution from non-point sources. Those projects include the use of best management practices that alleviate stormwater and agricultural runoff in urban and rural areas.

The Clean Water State Revolving Fund provides states with federal seed money based on their financial need. States then make low-interest loans to communities for the construction of municipal wastewater infrastructure and other projects. Over time, the fund is expected to "revolve" and sustain itself through leveraging of funds from other sources and the repayment of loans.

According to the report, from 1988 to 2005, a total of \$55.3 billion was available for SRF-financed projects, although not all of it was spent. Of the total, the federal share was \$23.3 billion with the state matching funds totaling \$4.8 billion, and bonds accounting for \$16.9 billion. Loan principal payments and other earnings accounted for the remaining money. Approximately 96 percent of the \$4.9 billion SRF assistance provided to projects in 2005 was used for wastewater projects, while four percent went for non-point source projects. This represented \$232 million for non-point source projects, up from \$168 million in 2004. These projects also included improvements to drinking water systems.

The report documents efforts made by states that received federal awards for innovative use of SRF funds. For example, Ohio's EPA and the state's Water Development Authority and Water Resource Restoration Program have granted \$67 million in SRF loans for projects to acquire wetlands, riparian lands and conservation easements, and to restore habitat and modify dams. Ohio became a leader in financing nontraditional projects.

Through innovative partnerships, the Delaware Department of Natural Resources and Environment Control streamlined project review and management processes, enhanced marketing and implementation of agricultural best management practices, and promoted the use of SRF loans to implement non-point source projects.

EPA plans to provide \$6.8 billion from 2004 through 2011, but has no projected funding estimates beyond then

New York's SRF program leads the nation in funding non-point source projects with over \$739 million in loans made through 2005. The New York State Environmental Facilities Corporation also implemented a new leveraging mechanism that allows it to sell SRF bonds without a reserve fund, resulting in a loan interest rate of 1.94 percent.

EPA plans to provide \$6.8 billion from 2004 through 2011 which would provide enough funds to establish a self-sustaining revolving rate of \$3.4 billion a year for the years 2015 through 2040. EPA has not, however, projected funding estimates beyond 2011. At the same time, the agency is committed to promoting innovative financing. To that end, the EPA is extending the loan repayment period for SRF funds beyond 20 years to allow communities more flexibility and better leveraging to help the agency meet its goal of sustainable infrastructure.

EPA's report, "*Clean Water State Revolving Fund Programs: 2005 Annual Report*", is available at <http://www.epa.gov/owm/cwfinance/cwsrf/annreport2005.htm>.

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

✓ Monday, June 12, 12 noon, Room 205, Matthew J. Ryan Building – Environmental Issues Forum. Jim MacKenzie, President and Operations Manager of Octoraro Native Plant Nursery, will present “Going Native – Opportunities for Using Native Plants in PA.”

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 MEMORABLE COMMITTEE EVENTS

Karen McCalpin (right), President for External Affairs for the state office of PA CleanWays, was the speaker at the Joint



Conservation Committee's April Environmental Issues Forum. She discussed PA CleanWays' work to prevent and clean up illegal dumping across the commonwealth.



In the photo above, committee chairman Rep. Scott Hutchinson chats with McCalpin about the illegal dumping problem in Pennsylvania.

At right, Rep. Hutchinson joins McCalpin (2nd from right) and PA Cleanways Program Managers Karen Fritz (right) and Heidi Pedicone (left) for a photo after the forum.



The second variable is the particular circumstances of a particular jurisdiction that can reveal the kinds of pressures for conservation likely to be present. Such factors as the extent of farmland and its rate of loss to new development, the presence of ecologically sensitive landscapes, and rates of economic growth and their form play into decisions about placing referenda on ballots. The Northeast and Midwest are by and large more densely populated than other areas of the nation and are home to older communities, often with a history of older, more traditional industries. Land is often more precious because there is less of it to be put up for grabs, and it is often large, older tracts that become available.

Can general, wider-scale conclusions be extrapolated from the local results of referenda around the nation?

The study notes, however, that despite the variables, referenda are often not subject to chance, which may account for their high percentage of success, as enumerated below. For example, referenda are often proposed after a study of demographics, land values and jurisdiction and are proposed where they are most likely to be successful. The study would look at “randomness” to see if general conclusions can be made about whether a referendum that worked in one place can be expected to work on a general basis.

Once measures are placed on the ballot, the question arises about how they fare with voters. The answer, according to the data, is remarkably well. Nearly 78 percent (859 of 1,102) of the referenda between 1997 and 2004 have passed, and most by wide margins, the median measure being approximately 60 percent of the vote.

Figures compiled by the Land Trust Alliance and the Trust for Public Lands shows that 328 of the 1,102 referenda received between 60-70 percent of the vote. Two hundred garnered between 70-80 percent and 296 more between 50-60 percent. One-hundred-eighty-one came close with 40-50 percent of the vote, and only 62 have received less than 40 percent of the vote.

As the study continues, research topics will include the type of financing used to fund conservation measures (i.e. bond issues versus tax levies), and funding levels. The intent is to do a benefit-cost analysis to help determine what the American populace is willing to pay for open space measures.

While a survey can measure what voters say they’d be willing to support, analysis of actual referenda shows what voters actually did support. The hope is that the research will help public decision-makers determine whether the benefits of open space preservation justify the costs.

Whether you support or oppose open space conservation referenda, the Resources for the Future study may help to provide useful information for policymakers, stakeholders, land trusts and others in planning future “land vote” questions.

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