

Conservation Committee Report

Volume 10 Issue 5

By Jack Walters, ACSL Conservation Chair

May 2008



The Conservation Pledge

I give my pledge as an
American to save
and faithfully defend from
waste,
the natural resources of my
country;
the soil, the water, the air,
the minerals, the plant life and
the wildlife.

This is my Pledge!

Inside this issue:

**PA BUILDING NEW EN-
ERGY ECONOMY**

Page 6

**More Large-Scale Carbon
Sequestration Projects**

Page 8

River Sweep

Page 10

GOVERNOR RENDELL SAYS PROMISING CELLULOSIC ETHANOL PLANT TO BE BUILT IN PA; CALLS FOR ACTION ON PENNSYLVANIA FUELS INITIATIVE

An innovative company specializing in the development and production of next-generation biofuels from non-food sources will locate a commercial demonstration production plant in Westmoreland County, Governor Edward G. Rendell announced today.

The Governor said the technology being developed by Coskata Inc. represents a promising alternative to conventional fossil fuels that could help meet America's energy needs without diverting crops, such as corn and soybeans, from the food supply.

"Pennsylvania is a leader in producing alternative fuels," said Governor

(continued on page 2)

16,000 Miles of Polluted Streams Add Urgency to Call for Clean Water Funding

Clean water is a right, not an option, yet a newly released report shows that more Pennsylvania streams are losing the battle against pollution this year than in past years, according to the Department of Environmental Protection, adding urgency to the call last week for a PA Fair Share for Clean Water funding plan.

The report, "The 2008 Pennsylvania Integrated Water Quality Monitoring and Assessment Report," shows that nearly 16,000 of Pennsylvania's 86,000 miles of streams and rivers do not meet water quality standards. In addition, over 38,300 acres of lakes and ponds are similarly impaired.

In addition to commending DEP for their work in obtaining the data, CBF recognized the report as a valuable tool for watershed groups and citizens interested in improving local water quality.

(continued on page 4)

GOVERNOR RENDELL SAYS PROMISING CELLULOSIC ETHANOL PLANT TO BE BUILT IN PA

(continued)

Rendell. “Coskata’s decision to locate this promising and cutting edge facility here was made in part because of our commitment to developing technologies like this and achieving energy independence.

“With the move from foreign oil to homegrown biofuels like ethanol and biodiesel, there’s been debate about whether these alternatives are the solution because of the rise in food costs. What has been largely missing from this debate is that rising energy costs are driving the higher prices we see for all products, including the food on our supermarket shelves. It takes energy to harvest crops, process them and manufacture them, then ship them to the store.

“Corn-based ethanol and biodiesel made from soybeans is a readily available, established technology that can bridge the transition from foreign oil to advanced fuels like cellulosic ethanol. By reducing our dependence on conventional fossil fuels in favor of more cost-effective biofuels, like Coskata’s product, which could be produced for less than \$1 per gallon, we can help mitigate the effects of higher fuel prices on the food market, while strengthening our economy and our national security.”

The Governor said Pennsylvania stands to be a leader in the development and deployment of cellulosic ethanol technology because the alternative fuel can be produced from biomass materials like switch grass, crop residues, small diameter trees and agricultural waste, all things that are abundant in the state.

Coskata’s demonstration plant will be built in Madison, Westmoreland County. The \$25 million project will be built at the Westinghouse Plasma Center, the site of a pilot-plant gasifier that is owned and operated by Westinghouse Plasma Corp., a wholly owned subsidiary of Alter Nrg Corp.

The plant will produce 40,000 gallons of cellulosic ethanol per year that will be used by General Motors to test the automaker’s flex-fuel vehicles at its Milford, Mich. proving grounds. General Motors is a strategic partner and investor in Coskata.

Coskata uses proprietary microorganisms and efficient bioreactor designs in a unique, three-step conversion process that can turn virtually any carbon-based feedstock into ethanol.

The company says its product can reduce carbon dioxide emissions by as much as 84 percent compared to conventional gasoline, and has the ability to generate nearly eight times as much energy as is required to produce it, according to the Argonne National Labs.

Governor Rendell’s PennSecurity Fuels Initiative legislation, part of the Energy Independence Strategy unveiled in February 2007, will require nearly 1 billion gallons of biofuels to be produced and consumed in the commonwealth. That target amount equals what the state is expected to import from the Persian Gulf by 2017.

A study commissioned for Citizens for Pennsylvania’s Future by LECG LLC examined the benefits of offsetting 900 million gallons of petroleum-based transportation fuel with renewable and coal-derived fuels by 2017, as called for in the Governor’s plan. The study concluded that the plan would:

(continued on page 3)

**GOVERNOR RENDELL SAYS PROMISING CELLULOSIC ETHANOL PLANT
TO BE BUILT IN PA**

(continued)

Add nearly \$1.5 billion to Pennsylvania's economy;

Create as many as 25,775 new jobs in all sectors of the Pennsylvania economy by increasing gross output from the production and construction of new capacity; and

Put an additional \$6.6 billion into the pockets of Pennsylvanians over the next decade

The PennSecurity Fuels Initiative legislation, House Bill 1202, is awaiting action in the Senate. The bill passed the House in June by a vote of 138-60.

"I urge the Senate to pass HB 1202 quickly to protect our consumers and strengthen our economy," said Governor Rendell. "With the average price of a gallon of regular gasoline in Pennsylvania now above \$3.50, and diesel at \$4.45, our consumers need relief at the pump. We can strengthen our economy by using more homegrown fuels and reduce our dependence on foreign oil with the PennSecurity Fuels Initiative, which is also good for our national security."

For more information on the initiative or Governor Rendell's Energy Independence Strategy, visit www.depweb.state.pa.us, and click on the "Fueling Energy Savings" icon.

Source: PA DEP

16,000 Miles of Polluted Streams Add Urgency to Call for Clean Water Funding

(continued)

“Approximately half of Pennsylvania’s streams drain to the Chesapeake Bay. With nearly 16,000 miles of our streams laden with pollution, it’s no wonder the Bay is suffering,” said Harry Campbell, CBF’s Pa Staff Scientist. “At its heart, the Bay restoration effort is about respecting and restoring our streams—the streams in our own backyard. If we find the political and societal will do that, the Bay will respond in-kind.”

The report, first released in 1998, is released every two years, as an on-going assessment of Pennsylvania’s waterways in order to determine the stream miles impaired and the causes of impairment.

“It’s unfortunate that as the state continues to assess the health of additional miles of streams, we continue to find waterways severely degraded by pollution,” said Campbell.

The health of our waters directly impacts the health of our communities. Over 80 percent of all Pennsylvanians get their drinking water from surface waters – our lakes, streams and rivers. Yet the DEP assessments conclude that these same resources are choking from excessive phosphorous and nitrogen, high acidity levels, toxic metals, and are laden with sediment that erodes from our lands.

“This report is significant because it shows we are losing ground in terms of meeting water quality standards and we need to do much more to insure we have safe water for people and aquatic life,” said Matthew Ehrhart, CBF’s PA Executive Director. “Pennsylvanians are blessed to have such an abundance of water resources - it’s time we ensure clean water for everyone.

Last week a coalition of groups, including CBF, publicly proposed a Pennsylvania Fair Share for Clean Water Funding Plan that will help Pennsylvania meet our water quality goals by addressing pollution from sewage treatment plants and agricultural operations, while also providing much-needed funding for conservation districts and the Department of Agriculture to accomplish these goals.

The diverse coalition includes: CBF, the PA Farm Bureau, PA Municipal Authorities Association, PA Association of Conservation Districts, the PA Builders Association and other groups.

The first year of the Plan proposes the allocation of \$100 million to help wastewater plants finance required improvements; \$50 million to direct cost-share aid to farmers to install conservation practices (including \$35 million for REAP farm tax credits and \$15 million in cost-share grants); \$10 million to county conservation districts to expand technical assistance to farmers; and \$10 million to restore cuts to the Department of Agriculture farm programs. The proposal would also reform the state’s nutrient credit trading program to help allow for future economic development.

“It is appropriate this Earth Day that we take stock of where we are in terms of water quality improvements, and where we need to be,” said Matthew Ehrhart, CBF’s PA Executive Director. “Our kids and our families deserve healthy, viable streams that meet water quality standards and provide for clean drinking water, healthy communities and recreational opportunities.”

(continued on page 5)

**16,000 Miles of Polluted Streams Add Urgency to Call for
Clean Water Funding
(continued)**

According to the DEP report, the top impairments come from abandoned mine drainage (5,584 miles), agricultural practices (5,320 miles), and runoff from urban/suburban areas (4,170). CBF is working statewide to help communities deal with some of these water quality and pollution issues.

To learn more, visit the [Pennsylvania Fair Share for Clean Water Plan](#) webpage.

Source: PA Environment Digest

PA BUILDING NEW ENERGY ECONOMY AS DEP SECRETARY HELPS BREAK GROUND ON CAMBRIA COUNTY WIND FARM

Highland Wind Project to Generate Enough Power for 16,000 Homes

A former Cambria County strip mine that has since been reclaimed will soon be home to 25 wind turbines generating enough power to meet the needs of 16,000 homes, Environmental Protection Secretary Kathleen A. McGinty said today as she helped to break ground on the Highland wind project. According to the secretary, the \$140 million effort shows Pennsylvania's leadership in clean, renewable energy development and will bring with it additional economic and environmental benefits. "Years ago, the indigenous coal resources from this site helped to power Pennsylvania and the nation," said McGinty. "Soon, we'll use another indigenous resource on this site to meet our energy needs, clean, renewable wind. "Pennsylvania is a leader in developing and deploying wind technology. With the price for conventional fossil fuels at record levels, wind is becoming increasingly cost-effective. This project, once it's online, will provide a dependable source of power for our homes and our businesses."

The Highland wind project, which is being developed by EverPower Renewables, is expected to be online later this year and could produce more than 164,000-megawatt hours of power annually.

And, because wind power is free of emissions, the project will prevent 400 million pounds of carbon dioxide, a potent greenhouse gas that contributes to climate change, from reaching the atmosphere. Removing that amount of carbon dioxide is the equivalent of taking 19,000 cars off the road annually, according to EverPower's calculations.

The developer has signed a wind energy voluntary agreement with the Pennsylvania Game Commission. The agreements were designed to avoid, minimize and potentially mitigate any adverse impacts the development of wind energy may have on the state's wildlife resources. While the agreements are voluntary, wind developers are required to prove that projects will not harm the commonwealth's plant and animal species. Before DEP issues any permit on a project that may affect a rare species or habitat, developers are required to search the Pennsylvania Natural Diversity Index. A Pennsylvania Natural Diversity Index search can reveal whether a rare species has been documented on the project site or within a pre-selected distance from it. If a species is found, the permit applicant must work to resolve any potential impact the project may present.

EverPower has been participating in the Pennsylvania Wind Farm and Wildlife Collaborative convened by Governor Edward G. Rendell to help develop wind energy in an environmentally responsible manner.

"We are very excited to be investing in Adams Township and Pennsylvania through the Highland Wind Project," said Jim Spencer, managing director of EverPower Renewables. "In addition to providing a clean, renewable energy source to the community, we anticipate that 450 to 550 jobs will directly and indirectly be created from the construction and operation of the wind project. The township, county, and area school districts also will receive revenue each year in tax payments from the wind project."

McGinty said Pennsylvania has attracted wind developers -- such as EverPower and some of the world's

(continued on page 7)

PA BUILDING NEW ENERGY ECONOMY AS DEP SECRETARY HELPS BREAK GROUND
ON CAMBRIA COUNTY WIND FARM

(continued)

largest clean energy developers and manufacturers, including Gamesa, Iberdrola and Conergy -- because of the state's commitment to renewable energy.

The Alternative Energy Portfolio Standards Act requires that 18 percent of all energy generated in the state come from alternative and renewable sources by 2021. Approximately 3,000 to 4,000 megawatts of wind capacity are expected to be installed in the state by 2021.

Pennsylvania currently has 293 megawatts of installed wind energy capacity; another 298 megawatts of capacity, including Highland's 65 megawatts, are expected to come online this year.

Governor Rendell has called on the state Senate to pass separate pieces of legislation approved by the House of Representatives that would further spur the development of renewable energy in Pennsylvania, create 13,000 new jobs, reduce the state's dependence on foreign oil, and save consumers \$1 billion a year on energy costs.

The House has passed: House Bill 1202 to replace nearly 1 billion gallons of imported fuels with home-grown alternatives; House Bill 2200 to provide smart meters to consumers that will help them conserve electricity and avoid peak rates; and Special Session House Bill 1 to invest \$850 million to grow the state's advanced energy sectors.

For more information on the Governor's Energy Independence Strategy, visit www.depweb.state.pa.us, and click on the "Fueling Energy Savings" icon.

Source: PA DEP

DOE Awards \$126.6 Million for Two More Large-Scale Carbon Sequestration Projects

Projects in California and Ohio Join Four Others in Effort to Drastically Reduce Greenhouse Gas Emissions

The U.S. Department of Energy (DOE) today announced awards of more than \$126.6 million to the West Coast Regional Carbon Sequestration Partnership (WESTCARB) and the Midwest Regional Carbon Sequestration Partnership (MRCSP) for the Department's fifth and sixth large-scale carbon sequestration projects. These industry partnerships, which are part of DOE's Regional Carbon Sequestration Partnership, will conduct large volume tests in California and Ohio to demonstrate the ability of a geologic formation to safely, permanently, and economically store more than one million tons of carbon dioxide (CO₂). Subject to annual appropriations from Congress, the two projects - including the partnership's cost share - are estimated to cost over \$183 million. Advancing carbon sequestration is a key component of the Bush Administration's comprehensive efforts to commercially advance clean coal technology to meet current and future energy needs and meet President Bush's goal to stop greenhouse gas emissions growth by 2025.

"The formations to be tested during the third phase of the partnerships program are the most promising of the major geologic basins in the United States. Collectively, these formations have the potential to store more than 100 hundred years of CO₂ emissions from all major point sources in North America," Acting Deputy Secretary of Energy Jeffrey Kupfer said. "Tests like these will help provide the confidence and build the infrastructure necessary to commercialize these technologies, and will enable the U.S. to continue using its vast resources of coal while protecting the earth for future generations."

The new projects will demonstrate the entire CO₂ injection process - pre-injection characterization, injection process monitoring, and post-injection monitoring - for large scale injections of one million tons or more to test the ability of different geologic settings to permanently store CO₂. DOE plans to invest \$126.6 million in the two projects over the next 10 years, while the industry partners will provide \$56.6 million in cost-shared funds to make these projects a success.

In the first stages of the projects, researchers will characterize the selected sites. Over the first 24 months, researchers and industry partners will complete the modeling, monitoring, and infrastructure improvements needed before CO₂ can be injected. These efforts will establish a baseline for future monitoring after CO₂ injection begins. Each project will then inject one million tons or more of CO₂ into a regionally significant storage formation. After injection, investigators will monitor and model the fate of the CO₂ to determine the effectiveness of the storage reservoir.

The latest projects to be awarded are outlined below:

Midwest Regional Carbon Sequestration Partnership (MRCSP) - The MRCSP, led by Battelle Memorial Laboratories, will demonstrate CO₂ storage in the Mount Simon Sandstone. This geologic formation stretches from Kentucky through Ohio and has the potential to store more than 100 years of CO₂ emissions from major point sources in the region. The MRCSP will inject approximately one million tons of CO₂

(continued on page 9)

from an ethanol production facility. In this area of Ohio, the Mount Simon formation is approximately 3,000 feet deep. The CO₂ will be injected on the facility site, and MRCSP will be responsible for development of the infrastructure, operations, closure, and monitoring of the injected CO₂. The MRCSP covers Ohio, Indiana, Kentucky, West Virginia, Maryland, Pennsylvania, New York, and Michigan. Total Project Cost: \$92,846,271; DOE Share: \$61,096,271

West Coast Regional Carbon Sequestration Partnership (WESTCARB) - The WESTCARB Partnership, led by the California Energy Commission, will conduct a geologic CO₂ storage project in the San Joaquin Basin in Central California. The project will inject one million tons of CO₂ over four years into deep (7,000+ feet) geologic formations below a 50-megawatt, zero-emission power plant in Kimberlina, CA. The Clean Energy Systems plant uses natural or synthesis gas in an oxyfuel system and produces a relatively pure stream of CO₂. This CO₂ will be compressed and injected into one of a number of potential storage formations below the surface of the plant. WESTCARB will develop, operate, and close the injection site as well as monitor the fate of the injected CO₂. The WESTCARB Partnership includes California, Arizona, Nevada, Oregon, Washington, Alaska, Hawaii, and British Columbia. Total Project Cost: \$90,594,099; DOE Share: \$65,606,584.

DOE's Regional Carbon Sequestration Partnerships are a ten-year initiative, launched in 2003, which form the centerpiece of national efforts to develop the infrastructure and the knowledge base needed to place carbon sequestration technologies on the path to commercialization. The seven regional partnerships include more than 350 state agencies, universities, and private companies within 41 states, two Indian nations, and four Canadian provinces.

During the first phase of the program, seven partnerships characterized the potential for CO₂ storage in deep oil-, gas-, coal-, and saline-bearing formations. When Phase I ended in 2005, the partnerships had identified more than three trillion metric tons of potential storage capacity in promising sinks. This has the potential to represent more than 1,000 years of storage capacity from point sources in North America. In the program's second phase, the partnerships implemented a portfolio of small-scale geologic and terrestrial sequestration projects. The purpose of these tests was to validate that different geologic formations have the injectivity, containment, and storage effectiveness needed for long-term sequestration. The third phase, large volume tests are designed to validate that the capture, transportation, injection, and long term storage of over one million tons of carbon dioxide can be done safely, permanently, and economically.

Today's awards are the fifth and sixth of seven awards in the third phase of the Regional Carbon Sequestration Partnerships program. In October, DOE announced the first three large volume carbon sequestration projects that total \$318 million for Plains Carbon Dioxide Reduction Partnership, Southeast Regional Carbon Sequestration Partnership, and Southwest Regional Partnership for Carbon Sequestration, and in December, DOE announced its fourth award to the Midwest Geological Sequestration Consortium.

Source: U.S. DOE

2008 RIVER SWEEP

2008 marks the twentieth consecutive year for the River Sweep.

The River Sweep will be held Saturday, June 21, 2008.

Allegheny County

Southside Riverfront Park

Follow East Carson Street to the Southside. Turn onto 18th Street. Park is at the end of 18th Street.

Washington's Landing

Take Rt. 28 to the 31st Street Bridge. Turn onto River Road. Off River Road, turn left onto the 30th Street Ramp. Follow Waterfront Drive. Meet at DEP Building at 400 Waterfront Drive.

Crane Avenue, South Hills

Liberty Tunnels to Route 51 North. Go approximately 0.2 miles and make Left onto

Crane Avenue. Go under cement overpass. Go -100 yards and make Left into wooden- railed parking lot. Additional parking can be found at Brashear School on right up road.

Glenwillard

From Airport, take Beers School/Narrows Run Road from Airport -turn left onto Rt. 51 North at light. Follow Rt. 51 North to Glenwillard. Turn right at Riverview Road (by stone monument and across from Crescent Township Volunteer Co.). Go 1/10th mile and turn left under tunnel. Turn right at end of tunnel into boat club.

From North, take Rt. 51 South to Glenwillard. Turn left onto Riverview Road (by stone monument). Go 1/10th mile and turn left under tunnel. Turn right at end of tunnel into boat club.

Natrona Heights

From Rt. 28, take exit 15 (Natrona Heights) .Right on to Burtner Road. At the first stop sign, turn right on Spring Hill Road. At the second stop sign go straight to the red light. Go straight across and go down Spring Hill Road.

Go thru another stop sign, at second stop sign, go across railroad tracks to River Ave. Go around the bend to the next stop sign. Make a left onto Veterans' Way at Len's Auto Body. Look for signs and red, white and blue balloons.