

TheSylvanian

Winter 2011

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Can Pennsylvania Learn from Easter Island?



Explore, enjoy and protect the planet.

From The Editors

There are two big issues swirling about Pennsylvania right now. But neither is ripe for *Sylvanian* picking quite yet. First, we have the continuing and developing Marcellus Shale gas issue. Several articles touch on it, but we haven't made it our center.

Second, we are faced with the inauguration of a new administration. We will see new leadership for Department of Conservation and Natural Resources and Department of Environmental Protection. Early indications aren't promising. In the next issue, we will have to address the immediate implications.

For now, though, we take a broader, or, if you will, a longer view. We ask what the future holds and we make some dire predictions. The future doesn't depend so much on a particular party or a particular governor. It depends on us. And we seem to be preoccupied with the present.

Your editors regret our reversion to a paperless *Sylvanian*, now that chapter ballots are not needed. But we make the most of it. We are happy that at least we spare one tree per paperless issue. We like the challenge of putting together an interesting and meaningful issue four times a year. But we haven't figured out how to market it. Suggestions would be appreciated.

This issue has found both Wendi and Phil involved in other things, the main one being Christmas. But the *Sylvanian* gets done in bits and pieces and is never far from our minds.

We have asked some new and different people to write for this issue. We appreciate our contributors, the regular kind and those whom we have cajoled to write articles on specific subjects.

If anyone among our readers feels slighted for not having been asked to contribute, let us know. We are always happy to find folk who want to help.

Also, if you are turned on or off by an article that appears herein, please write a letter expressing yourself.

Have a Happy Year!

WENDI TAYLOR AND PHIL COLEMAN
Co-editors of *The Sylvanian*



Wendi Taylor



Phil Coleman



OnTheCover

Michael LaMark lent his artistic talent to the cover of this issue of the *Sylvanian*, which asks if Pennsylvania is becoming the modern day version of Easter Island. It appears that our decision makers are allowing the natural resources of our commonwealth to be exploited in exchange for jobs and money.

We may learn too late the meaning of the Cree Proverb:

"Only when the last tree has died, the last river has been poisoned and the last fish has been caught, will we realize that we cannot eat money."

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Contributor deadlines are March 15 (Spring issue), June 15 (Summer issue), September 15 (Fall issue), December 15 (Winter Issue). Anonymous contributions are not accepted.

SIERRA CLUB MISSION STATEMENT: To explore, enjoy and protect the wild places of the earth; To practice and promote the responsible use of the earth's ecosystems and resources; To educate and enlist humanity to protect and restore the quality of the natural and human environment; and To use all lawful means to carry out these objectives.

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The Sylvania

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Next Deadline: March 15

Send articles & photographs to: sylvanian@pennsylvania.sierraclub.org. To mail photos: Sylvania, Sierra Club - PA Chapter, PO Box 606, Harrisburg, PA 17108

The View From Harrisburg



LEGISLATIVE GRIDLOCK PREVENTS FINAL ACTION ON MARCELLUS ISSUES

STATE FOREST GAS LEASING MORATORIUM, SEVERANCE TAX BILLS DIE IN SENATE; REPUBLICANS BREAK PROMISE

Sierra Club and other conservation groups have been pushing for a state forest gas leasing moratorium for several years, in response to efforts to expand the amount of natural gas leasing in our state forest system. Due to the serious state budget deficits Pennsylvania has faced in the last two years, pressure from drilling companies and their allies in the legislature has resulted in a drive to generate revenue from additional gas leasing. Governor Rendell, House Democrats and some Republicans, as well as conservation organizations pushed for a natural gas severance tax as an alternative to more state forest gas leasing. In the end, the conservative Republican Senate leadership prevailed, and the 2009 - 10 budget, adopted last October included revenue from additional state forest gas leasing, and no severance tax.

In 2010, a renewed push for a leasing moratorium successfully resulted in strong bipartisan support for House passage of HB 2235, introduced by Rep. Greg Vitali (D, Delaware). HB 2235, which passed the House with a 157 - 33 margin, established a three-year moratorium for new gas leasing on state lands, and called for an in-depth environmental review of the impacts of the drilling that will occur from the existing gas leases. At this time, about one third of our 2.1 million acre state forest system is available to the drilling industry (about 700,000 acres). HB 2235 was sent to the PA Senate, where it was referred to the Environmental Resources and Energy Committee, chaired by Senator Mary Jo White (R, Venango).

Meanwhile, pressure had been mounting for the state to pass a natural gas severance tax. While the General Assembly was unable to reach agreement on a severance tax as part of the 2010-11 budget, the Majority House Democrats and Senate Republicans formally agreed to pass a severance tax bill by October 1, and this "promise" was included in the final budget bill. The House, fulfilled the promise, passing a severance tax in SB 1155 on September 29, with a 104 - 94 bipartisan vote. The bill included a high tax rate and a distribution formula favored by Sierra Club and the conservation community, by dedicating 32 percent of the revenues to conservation programs. The Senate, however, broke its promise. Republican leadership refused to compromise, insisting on their formula, which allowed gas drillers to escape a significant tax rate in the early (most productive) years of a gas well. Governor Rendell tried to broker a compromise, which was rejected out of hand by the Republican Senate leadership. Senate leadership adjourned for the general election, vowing not to return after the election. Calls for the Senate to return to fulfill their promise and finish the job were ignored.

Thus, both HB 2235 and SB 1155 died. Failure to pass a severance tax means that pressure will continue to expand gas leasing in state forests as a way to raise badly-needed revenue to meet next year's projected budget deficit.

REFORM OF OIL AND GAS ACT STRENGTHENED THEN MOVES OUT OF COMMITTEE, FAILS TO GET HOUSE FLOOR VOTE

PA's Oil and Gas Act was originally passed in 1984, and has seen little improvement since its passage. Horizontal drilling with the hydrofracking process was not in use at the time the Oil and Gas Act was adopted, so it did not address many of the problems associated with Marcellus Shale drilling. Representative Camille "Bud" George (D, Clearfield), Chair of the House Environmental Resources and Energy Committee, introduced HB 2213, intended to bring our state Oil and Gas Act into the 21st century. To update the current law, changes include: increase bonding amounts, increase setbacks, expand the zone of presumption, require DEP inspections, etc. Some amendments Sierra Club requested were added in committee, before it was reported out. The bill passed out of committee with all Democrats and two Republicans (Harper and Ross) supporting.

Unfortunately, House Democratic leaders, nervous about scheduling a vote on a Marcellus bill that would open the door for a vote on an across-the board permitting moratorium amendment, decided to bottle up the bill, killing it for the '09-'10 session.

DRILLING MORATORIUM BILLS DIE IN BOTH CHAMBERS

Legislation to impose a statewide gas well permitting moratorium was introduced in both the Senate and the House. SB 1447, introduced by Senator Jim Ferlo (D, Allegheny) and HB 2609, introduced by Representative Phyllis Mundy (D, Luzerne) were both referred to their respective chamber's Environmental Committee. No hearings were held on either bill, and they died in Committee.

FORCED POOLING, LOCAL PRE-EMPTION DEFERRED TILL 2011

While the conservation community has been pushing proactively to adopt a severance tax, improvements to the Oil and Gas Act, a statewide permitting and state forest leasing moratorium, the industry has also been busy at work; both opposing our efforts, and pushing their own agenda. Under the guise of "modernizing" Pennsylvania's gas regulatory programs, the industry is working to enact "forced pooling" (they call it "conservation pooling"), as well as local government pre-emption.

Forced pooling would allow a drilling company to remove gas under a property, where the landowner who also owns the mineral rights does NOT want to lease to the drilling company. This would occur where the gas driller already has acquired the subsurface rights from most (the percentage varies) adjacent landowners. In that instance, forced pooling allows the gas driller to exercise what amounts to eminent domain, over the subsurface rights owner / landowner's objections. The driller would compensate the landowner with a "fair market value" determined by a supposedly independent third party Commission. The conservation community has opposed the passage of forced pooling, and the conservative landowners' rights people have also joined the chorus of opposition. As a result, the Republican Senate leadership has been unable to muster enough votes to pass forced pooling. They had planned to make it part of a deal on the severance tax bill, and the failure to find sufficient support in their own ranks may have contributed to the demise of the severance tax.

Local pre-emption is sought by the drilling industry, in order to prevent local governments from exercising ANY control over drilling activities. Recent court



cases have resulted in some pre-emption, where the state Oil and Gas Act clearly regulates those activities. But the courts have left open the possibility for local governments, under their authority granted by the Municipalities Planning Code (MPC), to regulate some aspects of drilling. Some communities have gone well beyond what the MPC authorizes (i.e. Pittsburgh passed a total ban on any drilling), and those are expected to be overturned by the courts. But the industry wants a complete pre-emption, so there is no question, and local governments likely will not attempt any local controls. At this time, no pre-emption language has passed, so the issue will be deferred until 2011.

REGULATORY IMPROVEMENTS APPROVED FOR DRILLING WASTEWATER DISCHARGE STANDARDS, WELL CASING REQUIREMENTS UPGRADE IN PROCESS

While there has been a stalemate in the legislative arena on Marcellus matters, progress is occurring through the administrative rulemaking process. Sierra Club has been working to upgrade the regulations for the discharge of natural gas fracking wastewater. As the volume of this wastewater, high in total dissolved solids (TDS) has increased, DEP has allowed drillers to dump their wastewater into municipal sewage treatment plants, solely for the purpose of dilution. These sewage plants do not have technology to remove the salts and sulfates make fracking wastewater harmful to aquatic organisms and water consumers. Under the newly-finalized regulations, discharges of wastewater must meet a much stricter discharge limit. As a result, a number of drilling companies are moving to the reuse/recycling of the wastewater for future fracking operations. The industry is also looking to the construction of drilling wastewater treatment plants, since they will no longer be able to take untreated wastewater to sewage plants.

A little further back in the regulatory pipeline are regulations that affect the drilling operations. Regulations that have been passed by the Environmental Quality Board (EQB) would tighten the well casing requirements for drillers. Frequently problems with cement and casing integrity cause well failures.

PA ELECTION RESULTS: REPUBLICANS WILL CONTROL HOUSE, SENATE, GOVERNOR'S OFFICE

In results that hearken to the 1994 general election, control of the PA House will switch to the Republicans, who will have a 112 - 91 majority. The PA Senate remains in Republican control 30 - 20. And the governor will be Republican Tom Corbett.

The Republican-controlled House will include committees largely controlled by representatives hostile to the environmental community. The House Environmental Resources and Energy Committee Chair will be Scott Hutchinson, (R, Venango), whose Environmental Scorecard rating for 2009-'10 was 13 percent, compared to the Democratic Chairman Camille "Bud" George, whose score was 92 percent. Incoming Speaker of the House, Representative Sam Smith (R, Jefferson) had a score of four percent (out of a possible 100 percent), compared to outgoing Speaker Keith McCall (D, Carbon), whose score was 82 percent.

Although the margin of Republican control in the Senate has not changed, the make-up of the Democratic Caucus is changing with the retirement of Democratic senators Ray Musto (D, Luzerne) and Bob Mellow (D, Lackawanna). Musto, who has been Democratic (Minority) Chair of the Environmental Resources and Energy Committee, disappointed many environmentalists in recent years by failing to be a strong environmental advocate. It is hoped that the Democrats will appoint someone with a better environmental track record as the Environmental Committee's Democratic Chair to replace Musto. Rep. John Yudichak, whose Environmental Score for '09 - '10 was 87 percent, was elected to fill Musto's open seat. However, Rep. Tim Solobay (D, Washington), whose score was 59

percent, was elected to fill the open seat of retiring Senator Barry Stout. Both newly-elected Senators served on the House Environmental Committee, but Solobay, who champions the gas drilling industry, stands in stark contrast to Yudichak, who was one of the House's "green dogs".

The biggest loss in the House elections was Rep. Dave Levdansky (D, Washington), who lost by a narrow 130 votes to a Republican challenger. Levdansky was a leader of the "green dogs" on Marcellus gas drilling issues, and his outspoken advocacy and expansive knowledge of the issues will be missed. Other "green dogs" Representatives who lost were Barbara McIlvaine Smith (D, Chester), Tom Houghton (D, Chester) and Rick Taylor (D, Montgomery).

All our endorsed Republicans won. Representatives Harper, Ross, Milne, Petri, Schroeder all were helpful in gaining House passage of both the state forest gas leasing moratorium and the severance tax. Ross's electronic waste recycling bill (HB 706), which is likely to be considered the best environmental bill that will be enacted by this General Assembly, was enacted during the House lame duck session.

A "sweet" pick-up for the Democrats was Sierra Club-endorsed Kevin Boyle, who ousted long-time Representative John Perzel (R, Philadelphia). Perzel, who first was elected to the PA House in 1978, served as Speaker of the House for a number of years during the Ridge and Rendell administrations. His indictment by Tom Corbett as part of the on-going "Bonusgate" investigations no doubt contributed to his defeat. At the other end of the state, Bill DeWeese (D, Greene) once again survived a challenge, even though he, like Perzel was a former House Speaker and is under indictment by Corbett. There is a chance that DeWeese, who has been a long-time champion of the coal industry, will be forced out of office if he is convicted of the corruption charges. In that case, there will be a special election to replace him. Another special election will be needed to fill the vacancy left by the death of Rep. Tony DeLuca (D, Allegheny), whose passing shortly after the November 2 election further complicates the House Democrats' reorganization.

While committee chairs may be announced before the end of the year, the remaining committee assignments are usually announced in early to mid-January. [\[Back to TOC\]](#)

InsideOurChapter

Getting Organized!

by Wendi Taylor

With the shift of political climate in Pennsylvania, environmentalists may have their work cut out for them. Governor-elect Tom Corbett has given no indication that he supports the many goals of the Sierra Club. Therefore, it is more important than ever that the club gets organized so that our individual members can act together to protect the environment in the coming years.

The Long Range Planning and Implementation (LRPI) Committee, which seeks to support the goals of the club, is compiling a list of suggestions from its members to find out what the club needs to do to make our organization stronger. The list includes ways to recruit, nurture and



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motivate our members that range from organizing a speakers bureau to offering free annual memberships to volunteers who donate a prescribed amount hours to the club.

The club has many talents, skills and interests among its 28,000 members. One of the first things we need to do is find out who has the time and interest to lend a hand in our efforts. Soon, our members and supporters will be asked to complete a survey, which will enable the club's leadership to record information about our members on a database. Once recorded,

the club will be able to match a member's individual interests and skills with the committees that are working on those interests and need those skills.

Further, the LRPI Committee will be looking to see where Sierra Club members live. There may be opportunities to create local teams where there are concentrations of members in a geographical area to work on an issue that is important to their locations.

If you have ideas for growing and activating our membership, please contact one of LRPI Committee members listed below:

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EnvironmentalHero

Nancy Parks

by Jake Patton

BACKGROUND:

Nancy Parks has been a member of the Sierra Club since 1978. She has held many positions in the club over the years, including Moshannon Group chair, chapter secretary, and delegate to the Appalachian Regional Conservation Committee (ARCC). She is currently an at-large chapter delegate and chair of the Air Quality and Acid Rain Committees.

Nancy is a resident of Aaronsburg, located in Centre County. She is the proprietor of two antique shops – one in State College and one in New Oxford – and she holds degrees in genetics, agronomy, and geography. Nancy is an avid outdoorsperson who loves hiking, canoeing, and cross-country skiing.



Q. How and why did you become involved in environmental advocacy?

It's what made sense – what my gut told me was the right thing to do. In 1978, we were living in Philadelphia and I worked on the Southeastern Group's Endangered Species Committee. In those days it was a hoot just to write a letter to a Congressman. I have learned public speaking and I've lobbied in Washington, D.C. I've researched air pollutants and the technologies to control them, and I've published many articles, position papers, letters to the editor, and fact sheets. I've also given testimony before the Pennsylvania General Assembly, the Independent Regulatory Review Commission, the Environmental Hearing Board, and the U.S. Senate. Today, illusions are long past.

Q. What are some of your favorite outdoor places in Central Pennsylvania?

Many of my favorite places are near my home, like the Hook Natural Area. I enjoy the Golden Eagle and Black Forest trails in Northeast Pennsylvania. The Mid-State Trail is also nearby, and I like the Quehanna and Susquehannock Trails north of Centre County. For canoeing, Penns Creek is just three miles away, and my all-time favorite – Pine Creek Gorge in Tioga County – has given me 28 years of good paddling memories through the Grand Canyon of Pennsylvania.

Q. As a longtime Executive Committee member, what do you consider to be the most important function of the state chapter?

We need to do what's best for all the Pennsylvania members, not just what's best for a single group. Transparency about what is happening in the National Sierra Club and Pennsylvania Chapter is also important. Education is what the Sierra Club stands for, and this is part of the Chapter's job as well.

Q. What improvements need to be made at the chapter level to better serve the club's mission?

We need to show our members some "ahead of its time" technology. For example, we could take chapter members to the off-the-grid solar powered residential community near Gettysburg. Also, we need

to spread out the chapter's workload and get more individuals involved – which are easier said than done. For example, it took many years of work on my part for volunteers in many groups to become interested in aspects of air quality, pollution emissions, and human health effects. I'm not out there alone anymore, so it can be done.

Q. Why is air quality such an important issue to you?

You can't do anything else when you can't breathe. I am a research scientist and a generalist. I started out working on so many issues – endangered species, Pennsylvania wilderness, oil and gas – that I needed to narrow my focus to be more effective. I chose air quality because it encompasses so many different areas – human health, technological research, biological effects – that this one area satisfies my need to know the larger picture.

Q. What are the biggest challenges to air quality in Pennsylvania today?

We have a long way to go in Pennsylvania. We are both victim and perpetrator, spewing air pollution over ourselves and our neighbors downwind. We also receive accumulated air pollution from many states in the Midwest, particularly the Ohio and Mississippi River Valleys.

We have won some battles, big and small, for protection from air pollutants. The problem is that a federal law can be passed and regulations can be promulgated within the state to enforce that law, but industry leaders drag implementation through the court system for years. For example, scrubbers on Pennsylvania power plants were ten years late because of industry litigation, and the result has been a 90% mortality rate for sugar maples in upstate Pennsylvania, devastating the maple syrup industry in the state.

So, no more “Mr. Nice Guy.” We have tried to work with air polluters but it's clear there is no compromise. It's time that we force these polluters to come to terms with immediate control of air pollutants – at their expense, I might add.

Q. What are some of the successes you've had while advocating for environmental protections? Can you talk a little bit about what you are working on today?

The last 30 years have been a heady time. A federal bill introduced in the 1980's to control acid rain was 70 pages long, while, by comparison, the Clean Air Act Amendments of 1990 were 700 pages long. This was complicated and energizing to implement, but the environmental community as a whole learned that simply passing the law was not enough – the key is the fight for implementation. The Sierra Club has been at the forefront of this struggle, using the detailed statutory language of the Clean Air Act to litigate for compliance over the course of decades. And the struggle continues – Title V Air Pollution permits come up for review every five years, so this will be the work of some activists in the near future.

I still research and write comments on regulations and testimony to be given before the Environmental Protection Agency but I no longer try to break my neck making it to every hearing and driving six or eight hours to give five minutes of testimony. We've learned to find local activists who can read those comments into the record.

I concentrate more on researching issues, then providing that information to our group and chapter members, so that they can experience the thrill of talking to a Congressional aide, or even a Congressman. For example, I would like to do some research on biogas – a method of electricity generation working phenomenally well in Sweden – then jump start the conversation about what could work and what is working in Pennsylvania.

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ExploreEnjoyPennsylvania

A Century of Skiing

by Gary Thornbloom

George Will, an early Pennsylvania Forest Ranger, skied in the Black Forest back in 1914. When Department of Conservation and Natural Resources employees Bob Webber and John Eastlake, who laid out the Black Forest Trail, began working to promote cross-country skiing in the early 1970's, the first cross-country ski trail in Pennsylvania was appropriately named the George B. Will Ski Trail.

The trailhead is along Route 44, 12.7 miles north of Route 664 in Tiadaghton State Forest along the Clinton and Lycoming county line. The 5.6-mile trail is wide, often straight, and is flat - all advantages to those learning to cross-country ski in the woods.

Skiing counterclockwise you will soon be skiing through a beautiful stand of white pines - snow covered they shout winter! The trail also threads a Norway spruce planting, and a red pine planting, both likely planted by Civilian Conservation Corps workers in the 1930's. Other conifers you ski through include thick stands of hemlocks.

With time the white blanket covering the woods is changed from a blank canvas, to a detailed record of wildlife activity. On my last outing there I saw more wildlife tracks than people tracks. Deer tracks were everywhere, new snow covered other tracks but the gait can offer clues—some were most likely coyote. Throughout the day we took turns guessing at what we were seeing, and after speculating that the narrow trough with tracks in a close line must be a bird, a grouse exploded from the thick conifer cover above us.

As you enter the mixed hardwood forest there are mature trees with obvious bark differences. White trunks are not always snow coated; some are grey birch. With several species of oak and birch, as well as cherry and an occasional aspen, you can enjoy skiing as well as learning more about our woodlands. The trail bisects two open meadows, one dotted by birch and hemlock. With the wind blowing snow across the white expanse, mostly flat with occasional tussocks, and divided by a meandering stream that



disappears under drifts—again, the landscape shouts, winter!

At the halfway point a vista overlooks Baldwin Branch. This a nice place to stop for lunch. The view is of the drainages that have carved up the Allegheny Plateau and make it such an interesting area to explore. An outpouring of glacial melt that began over one million years ago shaped the landscape in front of you.

The trail soon enters a deer enclosure. Compare the amount of tree regeneration that is outside the fence with what is inside. The beating that the forest takes from deer eating almost every tree seedling is obvious. Lack of regeneration, where no fence is in place, is evident in many of our state forests.

With virtually all state forest lands managed as multi-use the impacts of some uses are more evident than that of other uses. Nearby trails allow motorized use, and you will see areas that have been logged. Drive a little further on Route 44 and you will see the impacts of logging and of gas extraction. Only wild and natural areas are protected from this industrialization of our public lands.

Most of the George Will Ski Trail leads you into the natural wonders of our Pennsylvania forests, however the impacts of multi-use are also present along short sections. Add your comments in the trail register. Enjoy our woodlands, but also take the time to think about protecting these magnificent forests, ridge tops, and valleys.

I like to think George Will would delight in the fact that people are still enjoying a wintry day skiing through the woodlands that he surely enjoyed skiing in almost a century ago. [\[Back to TOC\]](#)

Coleman's Lantern

Fox

by Phil Coleman

My comments on *Sand County Almanac* (see book review, page 25) reminded me of an experience of my youth. I grew up in far west Texas, the only part that is mountainous. My parents let me and my brothers be free range kids. We could do anything, go anywhere, as long as the sun was shining.

There was a mountain east of town that we explored often. One day when we were climbing toward the summit, we saw a fox sleeping on a rock. It saw or heard us and ran to hide under a Yucca. We surrounded the Yucca and I reached under and caught it by the tail. I wrapped it in my shirt and took it home. It was a young kit, probably recently weaned although it seemed to be nearly full size.

My father made a cage for it, with a run, and we thought of it as our pet. We made a collar and leash and tried walking it without much success. One afternoon, when we went swimming, we left the fox on his leash in the front yard. When we came home, he was gone.

As I recall, we mourned losing him for an hour or two. Dad later converted the cage into a rabbit cage, and we raised rabbits during the meat rationing days of World War II.

I have come to suspect in recent years that the fox had help escaping. I think Dad let him go. I'm sure Dad realized that wild things don't fit in cages. Wild things are not pets.

A few years after that, we were climbing up a rock cliff on the same mountain when we came upon a nest – three very large chicks covered in white down on a nest of sticks. We told Dad about our find and he asked a biologist friend who said the chicks were probably eagles. A few days later, I was hiking with my friend, Robo Cross, and I showed him the chicks. I made him swear not to tell anyone about them.

But Robo told his friend Bobby Eaves and Bobby and a couple of other kids went out and stole the chicks and brought them into town. I was mad at Robo for the betrayal, but I soon got over it.

In a few weeks, the chicks got their feathers and turned out to be buzzards. So Bobby was disgusted and let them go. We considered that poetic justice.

I don't know what Bobby would have done with the chicks if they had turned out to be eagles. I can only hope that he would have let them go as well.

Wild things are wild. They don't fit in cages. I don't even like to see them in zoos.

But we don't learn about wildness in classrooms. Today, too many young people see wild things only on TV or in violent movies. They don't have the opportunities to learn that my generation had.



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Easter Island

Is Disaster Looming?

by Phil Coleman

“Only when the last tree has died, the last river has been poisoned and the last fish has been caught, will we realize that we cannot eat money.” -Cree Proverb

Easter Island, best known for its giant monoliths facing the sea, is also known for its puzzling barrenness, its struggling population. An island surrounded by fish-rich waters had no fishing boats when it was discovered by early explorers. It had no wood with which to build them.

It has become a symbol for ecological disaster, an overuse of its resources that left it unable to support its population, its people starving and in conflict.

(See, for instance: <http://www.netaxs.com/~trance/rapanui.html>)

We employ Easter Island here as a metaphorical question. Is Pennsylvania overusing its resources, abusing its forests and farmlands, losing its wetlands? Are we living beyond sustainability? Let’s consider some aspects of this question.

Cassie McCrae considers the future of coal.

John Rawlins discusses the end of oil.

Barbara Benson explores wetlands and small streams.

Wendi Taylor discusses shrinking farmland.

Cathy Pedler writes on the fate of our forests.

And **Wendi** does a reprise on the story of stuff.

Of course, no state is an island. We are part of a country and share its hopes, fears and excesses. And our country is part of a world order. All six and a half billion of us are in this together, burning fossil fuels, finding ways to produce more food on less available land and with limited (and sometimes poisoned) water, living a good and better life that we want to continue forever.

But no world is an island.

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Coal: The Other Finite Fuel

by Cassie McCrae

While Thomas Edison was gathering investors for the first coal-fired power plant, Nikola Tesla was arguing against developing an energy infrastructure dependent on a limited natural resource. Tesla favored a distributed generation and renewable sources like wind and passive solar. That debate started in the 1880's. Tesla argued for the careful conservation of non-renewable resources. Edison, on the other hand, was confident that concerns about running out of coal could be delayed well into the future. His estimate was that we need not concern ourselves with the question for some 50,000 years. As it turns out, we may need to consider a world without "cheap" coal quite a lot sooner than Edison expected.

Tad Patzek, chairman of the Department of Petroleum and Geosystems Engineering at the University of Texas at Austin recently published a study examining reports of international coal reserves and evaluating just how long we can expect to be reliant on the stuff. Contrary to most industry reports that extol the great abundance of coal reserves, Patzek introduced the concept of "peak-coal." If that alone is not quite intriguing enough for you, consider that he follows it up with the ominous announcement that we may reach coal's peak as early as summer 2011.

According to Patzek, within the next year the world will have dug up and burned through the high-quality, easy to access coal reserves. What will be left is lower-quality coal, in places and at depths that are increasingly challenging to mine as well as difficult to transport to places where it will be used. In effect, though we won't be out of coal, the cost of its extraction—including oft externalized costs of health and environmental impacts—will begin to increase while efficiency similarly declines.

In addition to Patzek's analysis of access and quality, let's consider the run-away pace at which we are using coal. We can start with global warming. Rather than shutting down our aging fleet of coal-fired power plants in favor of investing in renewable energy infrastructure development, our federal government is investing billions of dollars into research and development for carbon capture and storage (CCS). Without questioning whether CCS is a viable practice, here's something we do know: if the technology were functional at industrial scale, it would further reduce power plant efficiency by up to 40 percent according to a recent Greenpeace study. Stated differently, we will need to burn a lot more coal to generate the same amount of energy.

World-wide, we have used over 5.8 billion tons of coal so far this year. Let's imagine we managed to



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get CCS installed on just half the 600 or so facilities in the United States. That change would make a modest dent in world-wide carbon dioxide emissions. And that modest dent would force us to burn an additional 400 million tons of coal annually. That would escalate total US coal production well above 1.5 billion tons per year. Remember, we are getting down to the reserves that are increasingly more difficult and more expensive to access. In securing that 1.5 billion tons, we'll likely be forced to accept increasingly intensive and destructive methods of extraction or simple expansion of our best-worst practices at present (e.g. mountain top removal mining in Appalachia).

Meanwhile, well-meaning folks will begin purchasing the Chevy Volt and the Nissan LEAF to reduce our oil dependence. A fine goal, but without changing our energy generation infrastructure, those cars will ostensibly be plugging into coal-fired power plants. That is also going to mean more demand for electricity. If we have not invested in renewable infrastructure as we continue to expand demand we will be accelerating the peak coal timeline. The US Energy Information Administration projects that without substantial policy and infrastructure changes, there will be more than 50 percent growth in coal consumption by 2035.

So far, we have considered only carbon capture and electric cars. We still have ipads, personal computers, homes with ever expanding square-footage, and those irresistible seasonal treats of Christmas lights and inflated Easter Bunnies on our front-lawns.

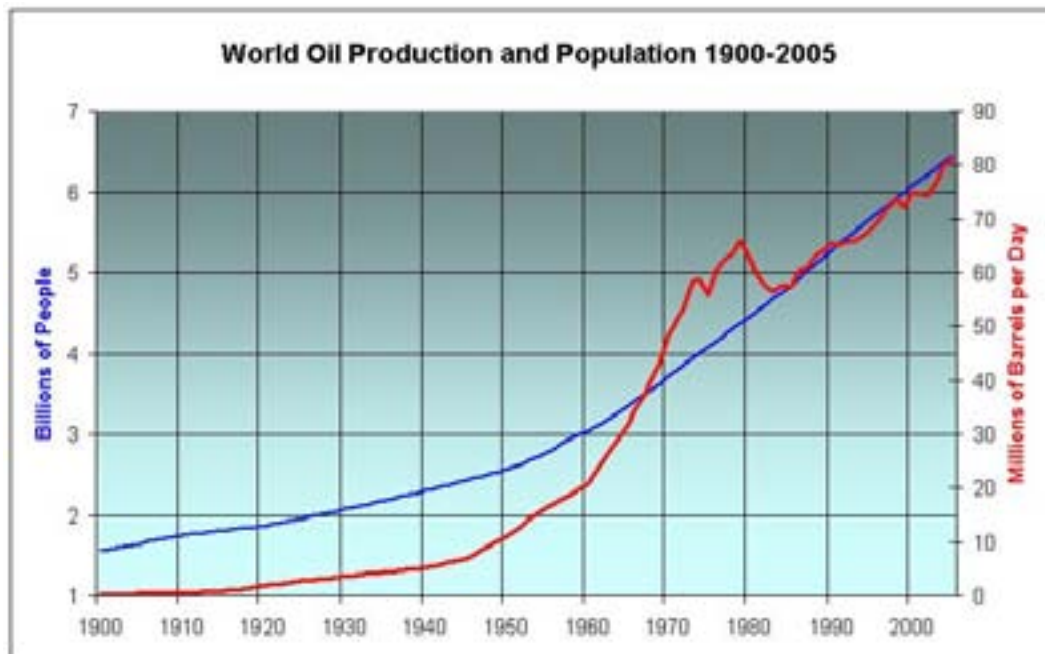
Meanwhile, as adept as we are at using coal, we still have not figured out a way to make more of it. The tonnage we use keeps right on building; unlike the amount still available which is a good deal more static as coal takes millions of years to develop. Despite the messages we hear from folks like the World Coal Institute claiming that coal is an abundant natural resource, I prefer Tesla's approach to the discussion. Considering that coal is a fundamentally limited natural resource, whose "cheapness" will follow the traditional curve of nonrenewable resources, today seems like a great day to accelerate our transition away from dependence on it. Yesterday would have been better, but beggars can't be choosers, so I'll take what I can get.

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The Bottleneck Century: Humanity's Greatest Folly

by John Rawlins



This graph explains half of the story behind the title of this article. Note that the scale for population begins at about 1.5 billion humans, while the scale for world oil production rate starts very near zero. The correlation between the two curves through the last century is obvious and startling when we consider the prospects for the twenty-first century.

Humans have made use of oil in natural surface seeps for thousands of years, largely as a lubricant or for lighting. In 1859 the first successful oil well that tapped deeper oil was in Titusville in northwestern Pennsylvania. That field was a meager producer by today's standards, but provided a whale oil substitute and started an industry that ultimately led to our present-day reliance on oil as our primary transport fuel. Until 1900, Pennsylvania supplied a large part of world oil. Today it is only of historic interest in oil production circles.

Around 1900, wells in Texas began producing large quantities of oil for an unprepared world, but expansion of oil-consuming vehicles soon provided a ready market for oil. Farmers began switching from animal labor to tractors, and the rapid increase in food production in the U.S. led to similar increases in food and people throughout the world for the next hundred years. Simultaneously, we began constructing the complex, highly industrialized world we see today based on apparently inexhaustible flows of cheap liquid fuel.

A 1998 issue of *Scientific American* discussed future prospects for cheap oil (meaning land-based or shallow water wells) as well as hopes for many kinds of alternatives. The need for alternatives was apparent from reading the article by Campbell and Laherrere that predicted a peak in world oil produc-

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tion rate around NOW (2010). In 2003 world oil prices began escalating by about 30 percent/year for five years, culminating in 2008 with prices higher than ever experienced before. Recessions had previously accompanied oil price spikes, and 2008 was no exception.

After the collapse of the financial bubble, demand for oil decreased a bit and prices collapsed to 2003 levels. As world economic activity has slowly increased since 2008, demand has risen and prices have again increased to nearly \$100/barrel (bbl). Since 2005 world oil production has been statistically nearly constant, despite prolonged high prices. It now appears that either 2005 or 2008 was the year of maximum production rate, depending on the analyst of choice. Now the major questions are:

1. When will the decline from peak values begin?
2. What will the rate of decline be?
3. How will humans react to decline of this strategically vital resource?

Recent expert assessments of world supplies of coal and natural gas indicate future problems outside the oil patch, with peaks expected by about 2025. Richard Heinberg refers to this rapidly developing situation as Peak Everything, and so do I. World energy production relies on fossil fuels to the tune of 85 percent, and even the other 15 percent depends heavily on oil for development and delivery. All transport depends on oil.

The introductory graph illustrates how humans have used cheap fossil fuels, and in particular oil, to increase our numbers far beyond sustainable, post-carbon levels. Human population rose to 1.7 billion during tens of thousands of years, and increased by another 5 billion during the past 100 years - a dramatic example of population overshoot in species ecology. So are humans smarter than yeast, which behaves the same way?

By 2100, essentially all cheap liquid fuel will be gone, and most electricity now supplied by coal and natural gas will likewise have disappeared, converted from stored ancient sunlight into atmospheric climate-altering gas. Alternatives are much more expensive, and no combination of them can scale up to more than something like 10 percent of what fossil fuels do 'for' us today.

William Catton, in his 1982 book *Overshoot* and the more recent *Bottleneck* concludes that we face a population/consumption bottleneck this century, with 6.7 humans entering and a much smaller number exiting, with increasing problems from now through the remainder of this century. The time to have avoided this energy folly was around 1940 or earlier, and the time to prepare for a smoother transition passed when we elected Ronald Reagan as president. We now face the music, and as in most human endeavors it is the music of tragedy.

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2. Books by Richard Heinberg, *The Party's Over: Oil, War, and the fate of industrial societies* (2003), *Powerdown: Options and actions for a post-carbon world* (2004), *Peak Everything: Waking up to the century of declines* (2007)
3. Books by William Catton, *Overshoot: The ecological basis for revolutionary change* (1982), *Bottleneck: Humanity's impending impasse* (2009)
4. Links to John Rawlins' 11 articles in *Whatcom Watch*, a monthly newspaper, also online: <http://www.energybulletin.net/node/33409>
5. Paul Chefurka's website, a good primer on peak oil and population, <http://www.paulchefurka.ca/Population.html>

John is a retired nuclear physicist, a former member of the Pennsylvania Sierra Club Chapter, and worked 19 years in breeder-reactor physics research for Westinghouse Hanford Co. He is presently experimenting with potentially sustainable subsistence farming and locally raising awareness of Peak Everything in northwestern Washington state. He dismisses "hope" as magical thinking

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Shrinking Wetlands

by Barbara Benson

Over the past two hundred years, more than half of our Commonwealth's wetlands have been filled or drained and thousands of miles of headwater streams, our most precious streams, have been channelized, enclosed, relocated or filled.

Historically, these streams and wetlands were regarded as nuisances that interfered with development. However, small streams and wetlands which form our larger streams and rivers are exceedingly important to the health of the waters of our Commonwealth:

- they maintain water quality by filtering and processing nutrients and other pollutants, acting as filters and purifiers;
- they retain sediments so downstream water is cleaner;
- they process organic matter such as leaf litter into food sources for aquatic life;
- they provide habitat for a variety of species, many of them threatened or endangered;
- they are nurseries and refuge for young fish.

These same streams and wetlands also attenuate flooding by slowing and storing flood flows and reducing property damage and loss of life. They help maintain water supplies by enhancing infiltration and ground water recharge. Headwater streams and wetlands are truly environmental treasures.

Since filling and destroying wetlands is to be avoided where possible and minimized wherever the disturbances cannot be avoided, a federal permit is required to fill in wetlands or stream segments. However, the Clean Water Act provides that the U.S. Army Corps of Engineers may issue general permits that exempt certain activities from full environmental review and individual permit requirement, if the activities result in only minimal individual and cumulative impacts on the environment. Unfortunately, the Corps has interpreted its authority to allow it to issue statewide permits delegating to states that have existing permit programs the authority to issue federal permits for relatively smaller impacts. Pennsylvania has such a permit.

Current Pennsylvania state rules give very little protection to smaller streams, waiving permit requirements for disturbing streams that drain less than 100 acres. As the Corps is currently reviewing comments upon its draft of the next round of Pennsylvania State Programmatic General Permits (PASPGP), Sierra Club and other environmental organizations are working hard to convince the Corps to eliminate this waiver (known as "Waiver 2"). Research by the Stroud Water Research Center and others suggests that small streams deserve as much protection as larger ones...and even more! They provide benefits to our overall watersheds far greater than their size, helping enhance stream biodiversity and keeping sediment and pollutants out of the lower reaches of the stream system.

The current lack of protection exists even though Pennsylvania's wetland regulations prohibit a net loss of wetlands and require mitigation if it is impossible to prevent encroachment. While restoration ecology has made significant advances in recent years, it is still hard to replicate the multi-faceted natural processes of headwater streams. Mitigations are often not successful in creating a wetland.

The PA Chapter Water Committee needs help from individuals around the state as we communicate our concerns to the Army Corps of Engineers. We are urging the Corps to require PA DEP to eliminate its Waiver 2 as a condition of issuance of the PASPGP-4. The elimination of Waiver 2 would provide much better protection of the sensitive and valuable wetlands and small streams in Pennsylvania.

We will soon know whether better protection is forthcoming. Are we on the track of the Easter Island residents, complacent about the losses? Or are we on a better track, protecting for all time the places that give birth to healthy rivers?

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Paving Over Our Farmland

by Wendi Taylor

“Don’t it always seem to go that you don’t know what you’ve got ‘til it’s gone. They paved paradise to put up a parking lot.”
-- Joni Mitchell

Nature only made so much farm land. When it is gone, it’s gone. Only about 1/32nd of the world’s land is capable of growing food. With such scarcity, Pennsylvania is fortunate to be home to some of the best farm land and soil in the world. Agriculture is Pennsylvania’s No. 1 industry. Prime farmland provides the best yield with the least amount of effort.

So what are we doing with this prized farmland? We are handing it over to developers to build houses, condominiums and shopping malls. In the first 150 years of its existence as a state, Pennsylvania gained farmland acreage at the expense of forest. But things have changed since then.

We are developing suburbs and malls out of a compulsion for profit rather than need, and that pattern is much like the Easter Island syndrome.

Since 1950, the Commonwealth has lost nearly half of its farmland. In the 25 years between 1982 and 2007, this trend continued and Pennsylvania converted 728,700 acres of farmland, or about 9 percent, into developed properties.

Pennsylvania has converted more farmland and forest land to suburbs than anywhere in North America except Wyoming. Unlike Wyoming, when Pennsylvania builds suburbs, it leaves urban properties vacant because Pennsylvania’s population is hardly growing.

We are developing suburbs and malls out of a compulsion for profit rather than need, and that pattern is much like the Easter Island syndrome.

Because farming has a low profit margin, farmers are tempted to sell some or all of their land to developers. About three-quarters of all fruits, vegetables and dairy products that are grown on Pennsylvania farms are in danger of being gobbled up for “progress.”

The conversion of farmland is sparked by sprawl, population moving to the outskirts of cities where the population is less dense, where housing neighborhoods are separated from businesses and where residents are dependent on the family automobile. Sprawl began after World War II and escalated when White Flight hit the cities in the 1960’s. Farms that were adjacent to cities were sold to make way for the suburbs.

Saving farm land and the countryside is very important, not only for growing food but also for protecting the quality of our water and air. Farmland plays an important role in rainwater filtration. When farms are converted into housing developments, the runoff from the roads, driveways and other paved surfaces can endanger local habitats because of the runoff. Rain runoff that hits hot pavement can heat up streams and fast moving runoff can dump soil and sediment into shallow streams and actually choke their flow.

Further, spreading the population to suburbs automatically means more air pollution because,

absent of public transportation, people need to use cars and trucks to get to work, stores and church.

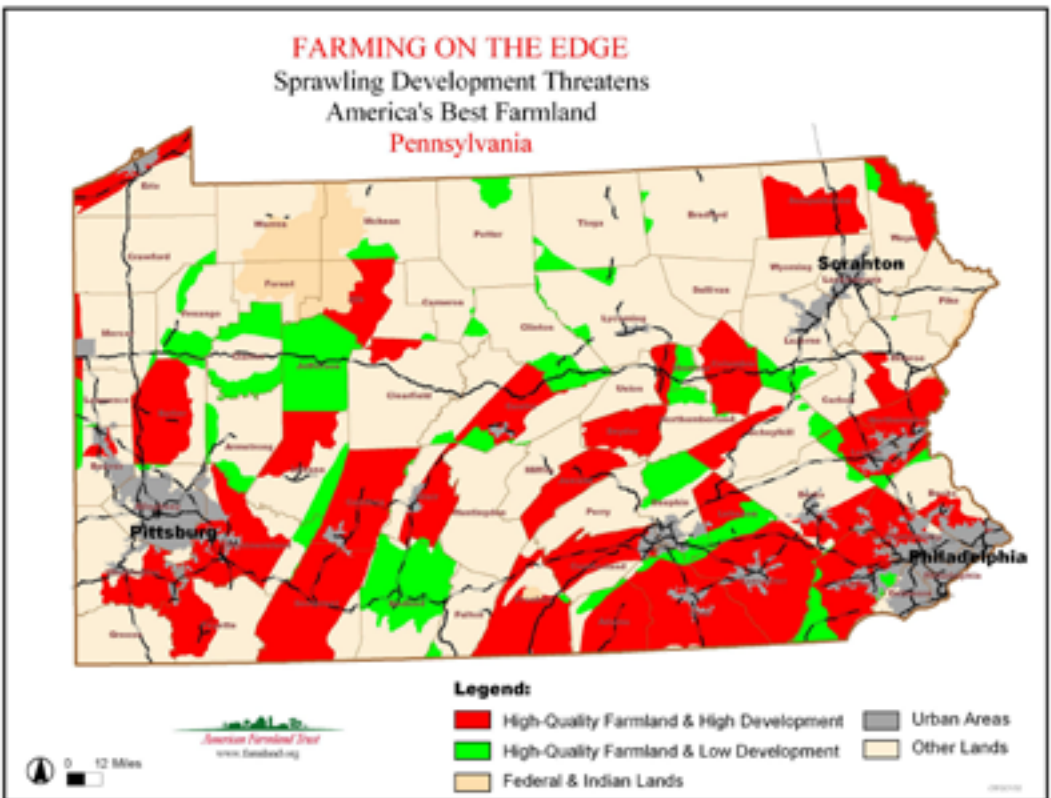
Nationally, the United States loses two acres of farmland every minute. Although Pennsylvania leads the nation in farmland preservation with 442,731 acres preserved through farmland preservation programs, it still loses farmland steadily.

Since 1974, Pennsylvania has recognized the need to assist farmers so that farmland can be preserved. The Commonwealth enacted the Clean and Green program, under which farmlands are allowed to be assessed at use value rather than fair market value.

The reduced value means lower property taxes for the farmer and lower tax revenue for the school districts.

An important tool for retaining farmland is the agricultural conservation easement, which pays farmers cash in exchange for easements and adds restrictions to the deeds that prevent development or conversion to a non-agricultural use. Farmers retain their ownership and permanently protect the land as farmland. The farmers can use the easement money to expand or update operations, pay off debt or just save for retirement.

In spite of these programs, Pennsylvania continues to lose agricultural land. When we consider that the entire community benefits from local farms because locally grown food is fresher and healthier than the food that may be shipped in from 1,500 miles away, and much less energy is expended on transportation, it is unfortunate that we are losing our arable land. [\[Back to TOC\]](#)



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Imperiled Forest Land

by Cathy Pedler



I wonder if anyone on Easter Island ever sat down and did the math when residents were cutting down their trees? And when they were warned, what did the leaders of Easter Island do? The other day, I calculated the proposed projects for the Allegheny National Forest and my heart sank. In this year alone, the U.S. Forest Service has proposed 19,000 acres of even-aged management (serial clear-cuts), and over 7,000 acres of herbicide application

the Allegheny National Forest (ANF). That amounts to almost 30 square miles of on-the-ground clearing and poisoning of forest ecosystems. Put another way, that is equivalent to the area in 14,520 football fields. Logging projects are now even slated for areas proposed by citizen groups for wilderness areas such as the Chappel Fork/Morrison Run area and the area north of Sugar Bay in McKean County.

The ANF and forests all over the state are gearing up for what was recently described, in the Nature Conservancy's Pennsylvania Energy Impact Assessment, as an "Energy Revolution."¹ Unfortunately the revolution appears to be aimed at Pennsylvania's natural heritage, its forests and watersheds, which have been identified as an export commodity to feed the current, large-scale grid and global energy market.

The Nature Conservancy (TNC) report analyzes the likely impact on Pennsylvania's Forests from "... natural gas drilling in the Marcellus shale formation, commercial wind turbines and harvesting of forests for biomass energy, as well as the new infrastructure that will be required to get this energy to consumers."²

A review of the interactive map in the TNC report shows that Pennsylvania's forests and parks are ground zero for this energy revolution that will rip the heart out of our state.³ Recently, DCNR Secretary John Quigley told Allegheny Front (western Pennsylvania's Environmental Radio, WQED, Pittsburgh) that the mineral rights under 80 percent of our state park acreage is privately owned.⁴ Drilling is likely to begin this year in three of our state parks.⁵ The state has leased hundreds of thousands of acres of mineral rights to drillers on our commonwealth forests. Currently, there are five wood/biomass incinerators operating in Pennsylvania and at least five more are proposed with multiple others in surrounding states.⁶ Unless we meet this threat to our commonwealth's forests and watersheds head-on, we may be on the same course as Easter Island – a land virtually devoid of trees.

Climate change is here and human activity is increasing its severity. We know that climate change will be hard on our forests and the habitat it provides to many species that live there. Our forests will be

1 http://www.nature.org/media/pa/tnc_energy_analysis.pdf

2 <http://www.nature.org/wherewework/northamerica/states/pennsylvania/news/news3511.html>

3 <http://maps.tnc.org/paenergy/>

4 <http://www.alleghenyfront.org/story.html?storyid=201012081305490.708676>

5 <http://www.alleghenyfront.org/story.html?storyid=201012081305490.708676>

6 <http://www.energyjustice.net/map/biomassproposed>

contending with periods of drought and flooding, higher winds and milder temperatures that will make them more susceptible to insects and disease. At the same moment we need our trees the most to absorb the carbon dioxide that has created climate change, we are proposing to cut down timber and subject our forests to industrial development. Destroying local landscapes is not the answer to our energy and climate crisis!

Those who embrace and drive the energy revolution say that some sacrifices must be made to meet our climate-change goals. They paint a beautiful shiny picture of tomorrow that is only reachable by using natural gas energy as “a bridge” to green energy, but this is only promoting the consumption status quo.

Because it feeds a global system, the Energy Revolution ultimately will serve only the interests of industry. Unfortunately, the technological application of climate science has not considered the fact that the earth is a complex adaptive system.⁷ Complex adaptive systems rely on diverse, functioning local ecosystems that are resilient because they can adapt locally to a rapidly changing climate. While our forests are capable of recovering from many shocks, that does not mean that they will always survive, especially when they are under assault from “vegetative treatment” regimes (i.e., clear cutting and herbicide applications) and covered with a grid of gas wells and commercial wind infrastructure that fragment our forests, poison our water, and block flyways.

Unlike Easter Island, Pennsylvania must find a way to meet our energy needs while protecting our precious woodlands and watersheds. We must fight campaigns of false choice and create local, truly sustainable futures that nurture the connection of local populations and the land.

Many people around the state are responding to the threat of hydraulic fracturing for natural gas, which poses an imminent threat to our state lands, our National Forest, and the forests and watersheds of our commonwealth.

People are defending their families, homes, and communities via grass-roots actions. For example, community groups are establishing resolutions against, and bans on, different aspects of unconventional gas extraction (e.g., Marcellus Shale gas), which uses the destructive technique of high volume slick-water hydraulic fracturing. Such grass-roots efforts include the recent City of Pittsburgh ban, which was drafted by the Community Environmental Legal Defense Fund and is supported by the Allegheny Group of the Sierra Club.⁸ Similar initiatives are active in South Fayette Township (Allegheny County), which created a zoning ban on Marcellus drilling in all residential areas and conservation districts, and in Licking Township (Clarion County), which created an ordinance to ban the dumping of wastewater from hydraulic fracturing.

Our ability to live on the land diminishes each day that we make choices that are not sustainable. The ecosystem is being taken apart around us and shipped overseas,⁹ leaving us behind with poisoned water and lifeless land. For those of us living and working in local landscapes, it is a matter of life and death.



7 Lovelock, *The Vanishing Face of Gaia: A Final Warning*, p. 61 to 66.

8 <http://alleghenysc.org/?p=1931>

9 <http://www.pennenergy.com/index/petroleum/display/6421909998/articles/oil-gas-financial-journal/unconventional/chesapeake-energy.html>

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Too Much Stuff

by Wendi Taylor

After going through the holiday gift-giving season and spending our time and money selecting just the right gift, it may be hard to hear that 99 percent of the stuff we bought will be ready for the dump in just six months!

Imagine all that stuff lined up in trash cans waiting for pick up. However, that is just the tip of the iceberg when it comes to the trash our consumerism has created. For every trash can sitting by the curb, 70 more cans of trash were created along the way to produce and distribute this stuff.

And what are we doing with all this trash? We send it to dumps, incinerators, recycling centers, composting facilities and in some instances, ship it overseas. We send it anywhere that we cannot see it. Because we live on a planet with finite space, at some point, we will run out of places to put our trash if we don't change our ways. Worse yet, we will run out of stuff to make our stuff. We appear to be willing to repeat the mistakes of Easter Island, whose inhabitants were so obsessed with making objects that they consumed everything on the island and left nothing to sustain human life.

This thought is particularly troubling to Americans who are dealing with the aftermath of the Great Recession, whose effects have been made worse because people are not consuming. Having an economy that is largely based on consuming goods is driving us toward the same fate as Easter Island.

Consumption is patriotic? After the 911 disaster, our president, George W. Bush told Americans the best thing they could do for their country at its moment of national tragedy was to go out and shop.

Buying stuff would not be so bad if the stuff was actually well made, durable and capable of being repaired. But it is not. Industry has learned that designing products to break or become obsolete is the best way to move their goods. My mother had the same waffle iron from the time I could remember. It was so well made that when I got married in 1967, it was passed on to me and I used it for more than a dozen years.

The average American consumes twice as much today than 50 years ago and creates twice as much trash than they did 30 years ago. If we could make things to last in the 1950's, we can certainly do that today. But we don't want to.

Annie Leonard points out in her cartoon documentary, *The Story of Stuff* (<http://storyofstuff.com/>), that companies profit from the materials economy, consisting of extraction, production, distribution, consumption, and disposal. While companies will argue that this process is good for the economy, it is bad for the earth and the people who work anywhere in the materials economy chain.

The costs of the materials economy are huge. Yet, they are not paid for by the companies that extract, make, distribute and sell stuff. The costs are paid by everyone else and the environment. Here in Pennsylvania, we know about the costs associated with the extraction of coal. Mining has ruined streams and wells; damaged dams and foundations of buildings and killed many miners through accidents and Black Lung. For years, coal companies paid for none of these "externalized" costs. Even now, most companies have to be regulated into protecting the environment and their workers.

In the production stage, once again workers are exposed to the greatest hazards. Workers routinely

work with one or more of the 100,000 synthetic chemicals that are used today. Many of these chemicals have never been tested to determine whether they are safe to handle. In the United States, our industries pump 4 billion pounds of toxic chemicals into our air each year. How long can we keep this up before we reach the point of no return?

As Leonard pointed out, people created this system and people can change it. To start with, consumers need to demand that things get built to last. Next, Americans need to bring pressure on corporations to find safe, green alternatives to the chemicals they are now using to build their stuff. And if corporations can't build environmentally safe products, consumers should be able to send the products back so that the those who make it have to dispose of the stuff in an environmentally safe way.

If all else fails, people need to voluntarily do without so much stuff – or it could bury us.

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Poem

EMILY Dickinson was born 180 years ago, December 10, 1830. In 56 years, she compiled a treasury of poems, most unpublished during her lifetime. Although we could overstate her aloneness, she had the advantage as well as disadvantage of not being taught what poetry should be. Thus her original voice. No models, few followers. Just Emily Dickinson.

Recently, Dave Bonta, Pennsylvania Chapter Sierra Club member, blogger, poet-extrordinaire, invited a few friends to do readings of Emily. If you would like to listen to them, go to:

<http://www.vianegativa.us/2010/12/woodrat-podcast-31-emily-dickinson-at-180/>

Meanwhile, here are a couple of her less-often published poems:

WILL there really be a morning?

WILL there really be a morning?
Is there such a thing as day?
Could I see it from the mountains
If I were as tall as they?

Has it feet like water-lilies?
Has it feathers like a bird?
Is it brought from famous countries
Of which I have never heard?

Oh, some scholar! Oh, some sailor!
Oh, some wise man from the skies!
Please to tell a little pilgrim
Where the place called morning lies!

Nature is what we see

Nature is what we see—
The Hill—the Afternoon—
Squirrel—Eclipse—the Bumble bee—
Nay—Nature is Heaven—

Nature is what we hear—
The Bobolink—the Sea—
Thunder—the Cricket—
Nay—Nature is Harmony—

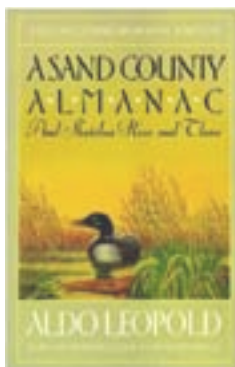
Nature is what we know—
Yet have no art to say—
So impotent Our Wisdom is
To her Simplicity.

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BookReview

Shining a Light on Sand County

by Phil Coleman



BOOK REVIEW: SAND COUNTY ALMANAC

This past spring, I moved from a large house to a small apartment. In the process, I gave away over 2,000 books. One of the few books I kept was Aldo Leopold's *Sand County Almanac*. This book, published in 1948 is as poetic as and essentially as prescient as Thoreau's *Walden*. Although it has been praised by many environmentalists, it has not received the attention it deserves. *Walden* is read by millions of school students, but *Sand County Almanac* rests dusty in libraries.

This book is full of pithy wisdom and forecasts that seem compelling in our present situation. I can't let it go.

I leaf through it and find passages I underlined decades ago, and I wonder whether I haven't written some of those things as though they were my own. One passage that I will never confuse is his description of watching the death a wolf which he and his comrades had shot. "We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then and have known ever since, that there was something new to me in those eyes -- something known only to her and to the mountain" – the essential wildness.

Leopold goes on to describe the importance of wolves to their ecosystem. The very deer they feed on need them to preserve a balance in nature. People in their blind, unthinking arrogance, believe that getting rid of wolves "improves" the land.

Leopold says in his introduction, "Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher 'standard of living' is worth its cost in things natural, wild and free."

He continues later, "Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we regard it as a commodity belonging to us."

Sand County Almanac is full of nuggets. Consider:

"When a soil loses fertility we pour on fertilizer, or at best alter its flora and fauna, without considering the fact that its flora and fauna which built the soil to begin with may be important to its maintenance."

Or, "Flood control dams have no relation to the cause of floods."

Or, "Ability to see the cultural value of wilderness boils down, in the last analysis, to a question of intellectual humility."

Or, "A land ethic changes the role of Homo Sapiens from conqueror of the land-community to plain member and citizen of it."

Thoreau published *Walden* in 1845, urging us to reconsider the direction our society was going. At that time railroads were new, and he questioned our hurry to get places that weren't any better than

the places we left. He lived before electricity, before oil (at a time when whaling thrived because whales rendered oil for lamps), before cars, before airplanes, before air conditioning. Writing just over 60 years later, Leopold warned us of the error of our ways, but again we have ignored the message.

Since then, the interstate highway system and jet airplanes have revolutionized travel once again. Air conditioning has opened the South, but has closed our windows and shut us away from our neighbors. High tech agriculture has created super farms but driven folk from country to city. We have ignored the warnings both laid out.

We have created mammoth zoos where we put wildness on display, but the only wildness we tolerate is human violence. It is past time for a new Thoreau, another Leopold.

In order to keep Leopold's message from fading away, I make the following offer. I will send copies of *Sand County Almanac* to the first ten people who ask for a copy. My only requirement is that each promises to read it.

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Game Officer Killed in the Line of Duty

by Arthur Clark



On November 11, 2010, the most dreaded call a law enforcement agency can receive came in from Freedom Township, Adams County- "Officer down." Wildlife Conservation Officer David Grove of the Pennsylvania Game Commission was shot and killed by a poaching suspect whom he had been preparing to take into custody. Fortunately, the shooter's passenger, with him in his truck, demanded to be let out of the vehicle shortly after the suspect began fleeing from the scene. The passenger's witness statements to police, combined with Grove's adherence to procedure, allowed authorities to quickly identify the shooter as Christopher Johnson of Carroll Valley Borough, Adams County. Officer Grove had called in the vehicle's license plate number shortly before he was shot.

Johnson, a convicted felon, was traced to a hunting cabin on the morning of Nov. 12, 2010. There he was apprehended without further violence. Johnson admitted shooting WCO Grove upon being taken into custody. The suspect stated that he had shot Grove because he was determined not to be sent back to prison. Subsequent investigation revealed that Johnson had fired 15 times. Officer Grove returned fire with 10 rounds. The investigation also found that WCO Grove was unarmed when he was fatally shot near the rear of his vehicle. Grove was struck four times. Game Commission officers, Pennsylvania State Police, U.S. Marshals and numerous other agencies participated in the manhunt.

As a Wildlife Conservation Officer, Grove spent his time not only enforcing the Commonwealth's conservation laws, but also teaching children and adults in his nature education duties. In his off-time, Grove was active with his churches in addition to hunting and fishing. He also enjoyed spending time with his girlfriend, family and friends.

Grove's funeral, held at Waynesboro Senior High School on November 21, 2010, was attended by over 2,000 people. Law enforcement officers from all fifty states were in attendance. In memory of Officer Grove, the Pennsylvania Game Commission has retired his badge number and radio call sign. Governor Rendell ordered all state flags to be flown at half staff from November 12 to 21.

Grove began his service as a WCO in 2008. Prior to that, he served as a Deputy WCO. Grove was born in Chambersburg, Franklin County, PA, on March 5, 1979. He was a graduate of Grace Academy, Hagerstown, Maryland and received his bachelor's degree in Wildlife and Fisheries Science from Penn State University in 2004. Grove is survived by his parents, Dana S. and Lucy R. (Straub) Grove of Waynesboro; his brother, Chad M. Grove and his wife Anna of Martinsburg, West Virginia; his sister, Jennifer M. Grove, of Waynesboro; two nieces, Mandy and Parker Grove of Martinsburg; his nephew Kayden Grove of Martinsburg; his maternal grandmother, Laura Budd of Harrisburg; his girlfriend, Angela R. Heare of Falling Waters, West Virginia; and numerous aunts, uncles and cousins.

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Results of the Election

by Roy Fontaine, on behalf of the Election Committee

The Pennsylvania Chapter of the Sierra Club has selected its three delegates, whose term begins in January: Wayne Kenton, Donald Miles and Nancy Parks.

At-Large Delegate ballots were counted beginning at 12:30 p.m. on December 17th in Lewisburg at the Cherry Alley Café by Roy Fontaine and David Hafer.

One hundred ten regular single ballots and 34 regular joint ballots were processed. There were 3 irregular ballots with the membership number supplied by hand which were also entered into the tallies reported below. Three invalid ballots were also received. One had no membership number on it; the others voted for four candidates. If these ballots had been valid and counted they would not have altered the outcome of the election.

The number of ballots received last year was 50, so more people participated in this year's election.

The vote totals were as follows:

- Donald Miles: 138
- Nancy Parks: 136
- Wayne Kenton: 110
- Jim Keller: 55
- David Hanwell (write-in): 1

Congratulations to the top vote getters and many thanks to all who participated.

Best wishes for 2011!

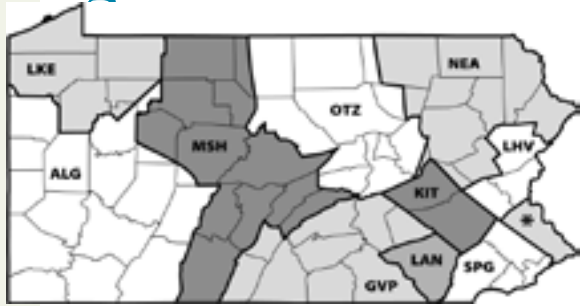
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Meetings & Outings

For up-to-date information, start times, meeting points, & directions, please see your Group's website or newsletter, or contact the Sierra Club members listed below.

Groups may plan events & outings after *The Sylvania* goes to press & those listed here may change. Participants on outings must sign a liability waiver, available from www.sierraclub.org/outings/chapter/forms or from the Outings Department at 415-977-5528.

Sierra Club does not have insurance for carpooling & assumes no liability.



great hiking if snow conditions aren't favorable. Rental units must be reserved well in advance, so reserve early. Depart Friday. Limit: 16. \$25.00 carpool-150 miles. Call Monika Dalrymple, 724-863-4163.

Sunday, Feb. 20 -- Enjoy a 6-mile hike in Boyce Park between Monroeville and Plum. If the snow is deep we will do snowshoeing instead. Snowshoes can be rented at Center Ski along the main road to Boyce Park just south of the park. Meet at the Boyce Park Ski Lodge. Call John Dern, 412-856-4642.

Sunday, Mar. 6 -- Hike, intermediate, on the scenic Indian Creek Valley Trail (a level bike path in summer). We will start at Indianhead and hike north to Champion and beyond to Jones Mill and return. The total round-trip distance will be on the order of 11-12 miles or less if the group decides. If the snow is deep, we go XC skiing at the Laurel Ridge State Park XC ski area instead. Suggested carpool fee \$8 for the 45-mile drive (each way). Meet at Gateway Middle School at 9 AM. Call Donna Allen, 412-372-2993.

Allegheny Group

www.alleghenysc.org

MEETINGS

Allegheny Group meetings are held on the second Wednesday of each month. The public is welcome at no charge. Meetings are usually followed by refreshments, conversation and a time to connect with representatives and officials about conservation action. Contact Donald Gibbon at dongibbon@earthlink.net with questions or suggestions.

OUTINGS & PROGRAMS

Ask leaders for carpool & contact information. Structured rates for carpooling fees based on distance. Please reserve 36 hours in advance. Interested in leading outings? Contact Bruce Sundquist, 724-327-8737 or bsundquist1@windstream.net

Saturday, Jan. 15 -- Enjoy a loop hike of 4 or 7 miles (depending on the weather) near Sarver. Lunch, with campfire, will be along Buffalo Creek. We will stop for a short look into a large limestone cavern along the trail. Meet at the Bob Evans Restaurant (rear lot) in Harmarville at 9 AM. A carpool fee of \$3.00 is suggested for the 20-mile drive (each way). Call Ed Divers, 412-828-5154.

Friday-Sunday, Jan. 28, 29, 30 -- Umteenth annual XC skiing weekend, Intermediate, in Canaan Valley State Park, Blackwater Falls State Park Whitegrass and Canaan Mountain. The elevation (3200-4100') produces more snow than Laurel Ridge. Scenery in West Virginia's Highlands insures

Governor Pinchot Group

pennsylvania.sierraclub.org/pinchot

MEETINGS

Governor Pinchot Group monthly Meetings are held the last Tuesday of the month at 6:30 in the evening. Call Jack Flatley at 717-921-2708 for location or email at riverman17018@comcast.net

OUTINGS & PROGRAMS

For info on Governor Pinchot Group activities, see pennsylvania.sierraclub.org/pinchot.

Kittatinny Group

pennsylvania.sierraclub.org/berks

MEETINGS

Kittatinny Executive Committee meets monthly. All members welcome. For more info, contact Bob Flatley at 610-756-6625 or via e4bob@yahoo.com.

OUTINGS & PROGRAMS

For up-to-date listings of activities, see pennsylvania.sierraclub.org/berks/calendar.htm.

Lancaster Group

pennsylvania.sierraclub.org/lancaster

MEETINGS

Business meetings of the Lancaster Group of the Sierra Club are held on the third Wednesday of every month (except July and December) as follows with their themes: January 19 -- "New Year's Resolutions"

February 16 -- "Love Your Earth"

March 16 -- "New Beginnings"

April 20 -- "Earth Day."

All meetings are open to the public and begin at 6:30 p.m. They are held in Lancaster Country Day School (Room 111), 725 Hamilton Road, Lancaster. Parking is available in the school's parking lot.

As programs are developed for the series, they will be posted on the website: <http://pennsylvania.sierraclub.org/lancaster/index.html>.

OUTINGS

The Sierra Club-Lancaster Group has slated a number of winter and spring outings, to which all people are invited.

Saturday, January 22 -- A Polar Bear 5 K Trail Run/Hike through Lancaster County Central Park to help raise funds to support work that will help end global warming, the reason polar bears and other creatures are at risk of extinction. By running or walking in this race, you will be making tracks for change! The first 50 registrants will receive a free gift. Prizes also will be awarded to the top three male and female runners and the top three male and female runners in each age category. The registration fee is \$15. The race will begin and end at the Lancaster County Department of Parks and Recreation's Environmental Education Center located at One Nature's Way, Lancaster. Registration forms can be downloaded at www.lancastersierraclub.org or picked up at various sporting goods stores throughout Lancaster County. Race day registration and check-in will begin at 8:30 a.m.

Sunday, February 20, at 12 p.m. -- A Snowshoeing and Maple Syrup Demonstration on Loop Drive in Lancaster County Central Park.

Sunday, March 20, at 1 p.m. -- A trip to view the Snow Geese migration at Middle Creek Wildlife Management Area

Saturday, April 23 -- An Earth Day Trail Cleanup at a place and time to be determined.

For more outing details, please contact Jennifer B. Ericson at jericson@ezsolution.com or 717-892-2026, or visit the website, www.lancastersierraclub.org

Lake Erie Group

MEETINGS

Business meetings are held the second Thursday of every other month at the Asbury Wood Education Center, on Asbury Road in Erie, starting at 6:30 pm to 8 p.m.

OUTINGS & PROGRAMS

For information on Lake Erie Group outings and activities, contact Chuck Benson at bensonville@aol.com

Lehigh Valley Group

pennsylvania.sierraclub.org/lv

MEETINGS

The Lehigh Valley Group Executive Committee meets at 7 p.m. the second Wednesday of each month. However, the April meeting will be held on Thursday, April 15. All members are welcome to attend the Executive Committee meetings. This is where we do our strategic planning & receive updates on current projects. The meetings are held in the 6th floor conference room of the Fowler Center, Northampton Community College, Third and Buchanan Street, Bethlehem, PA 18015.

OUTINGS & PROGRAMS

Please visit their website for updated outing information. For up-to-date information on outings & activities see www.pennsylvania.sierraclub.org/lv

Moshannon Group

pennsylvania.sierraclub.org/moshannon

MEETINGS

Moshannon Group meetings are on the first Tuesday of month at 7 p.m. at Clear Water Conservancy, State College. All members & guests welcome. For more info, contact Gary Thornbloom at 814-353-3466 via bearknob@verizon.net.

OUTINGS

All outings open to general public & members. All levels of ability and interest are encouraged to participate.

Moshannon Group's outings are at <http://pennsylvania.sierraclub.org/moshannon/outings.html>

Northeastern Group

pennsylvania.sierraclub.org/northeastern

MEETINGS

Members are always welcomed and encouraged to join us each month for our executive committee meetings, where we plan activities & group priorities. Meetings held on first Tuesday of each month, usually at 7 p.m. and meeting sites vary. For more information, contact Jen Lavery at JenLavery@aol.com.

OUTINGS

For more information, please visit the website.

Otzinachson Group

pennsylvania.sierraclub.org/otzinachson

MEETINGS

Meetings are held the first Wednesday of every other month. For more information, please visit the website.

For more information contact:

Paul Shaw, Outings Chair, 570-672-2389 pshaw@ptd.net

Southeastern Group

pennsylvania.sierraclub.org/southeastern

MEETINGS

Executive Committee meets the second Thursday of the month at 7 p.m. at Whole Foods Community Room, 20th & Callowhill Sts, Philadelphia. To confirm the meeting date and location, contact 215-820-7872.

OUTINGS & PROGRAMS

Please visit the website for updated outing information. For more information on any event, contact Bill Brainerd at 610-325-3127 or billbrainerd@gmail.com.

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CONTRIBUTING	<input type="checkbox"/> \$150	<input type="checkbox"/> \$175
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SENIOR	<input type="checkbox"/> \$24	<input type="checkbox"/> \$32
STUDENT/LIMITED INCOME	<input type="checkbox"/> \$24	<input type="checkbox"/> \$32

Contributions, gifts and dues to the Sierra Club are not tax deductible; they support our effective, citizen-based advocacy and lobbying efforts. Your dues include \$7.50 for a subscription to Sierra magazine and \$1.00 for your Chapter newsletter.

Enclose check and mail to: **Sierra Club, P.O. Box 52968, Boulder, CO 80322-2968**

 **SIERRA CLUB**
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F94Q W 4100 1

Explore, enjoy and protect the planet

Answers to Crossword Puzzle (from page 35)

Across

1. FREE RANGE
8. PARKS
10. TITUSVILLE
12. URBAN SPRAWL
13. EASTER ISLAND

Down

2. GEORGE WILL
3. MORATORIUM BILLS
4. BOTTLENECK
5. DICKINSON
6. SEVERANCE
7. REPUBLICAN
9. SAND COUNTY
11. TESLA

Chapter Directory

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(717) 232-0101, pennsylvania.chapter@sierraclub.org
Chapter Director: Jeff Schmidt jeff.schmidt@sierraclub.org

PA FIELD PROGRAM

PHILADELPHIA OFFICE (215) 508-3310
Associate Representative: Jason Brady

PITTSBURGH OFFICE (412) 802-6161

Regional Representative: Rachel Martin
Associate Representatives: Randy Francisco, Hillary Bright (Blue Green Alliance)

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OFFICERS

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Vice Chair: Wendi Taylor (717) 612-9409, taylorwj@comcast.net
Secretary: Bill Brainerd (610) 325-3127, wbrainerd3@gmail.com
Treasurer: Robin Broderick (717) 221-8590, rbroderick1@email.com
Legal Chair: Dara Lovitz (215) 917-0996, dora.lovitz@hotmail.com

COUNCIL

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Alternate: Robert Berger (610) 767-4774, bob.berger@verizon.net

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POLITICAL ACTION FUND

Chair: David Byman (570) 963-2586, dxb14@psu.edu
Treasurer: Tom Anderson (717) 432-4177, tandkindillsburg@aol.com

OUTINGS

Chair: Vacant

COMPUTER

Chair: Dan Schreffler (570) 343-4056, computer.chair@pennsylvania.sierraclub.org

WEBMASTER

Dan Schreffler (570) 343-4056, webmaster@pennsylvania.sierraclub.org

SIERRA STUDENT COALITION

Matt Himmelein (215) 815-7757, mathew.himmelein@gmail.com

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ALLEGHENY GROUP (ALG)

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Chair: Bob Flatley (610) 295-8840, robertkf@gmail.com

LAKE ERIE (LKE)

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OTZINACHSON (OTZ)

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CORE

Chair: vacant

ENERGY

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Co-Chair: Wayne Kenton waynekenton@comcast.net

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Co-Chair: Holly Cadwallader (610) 844-7926, hccadwallader@earthlink.net

STATE PUBLIC LANDS

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Co-Chair: Larry Joyce (717) 975-2038, Ljoyce99@aol.com

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Chair: Al Wurth (610) 866-9846, ahw1@lehigh.edu

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Co-Chair: Barbara Benson (610) 282-3611, barbarabenson@bensonsails.com

Co-Chair: Thomas Au (717) 234-7445, thomxau@gmail.com

COAL TEAM

Randy Francisco (412) 802-6161

ENERGY TEAM

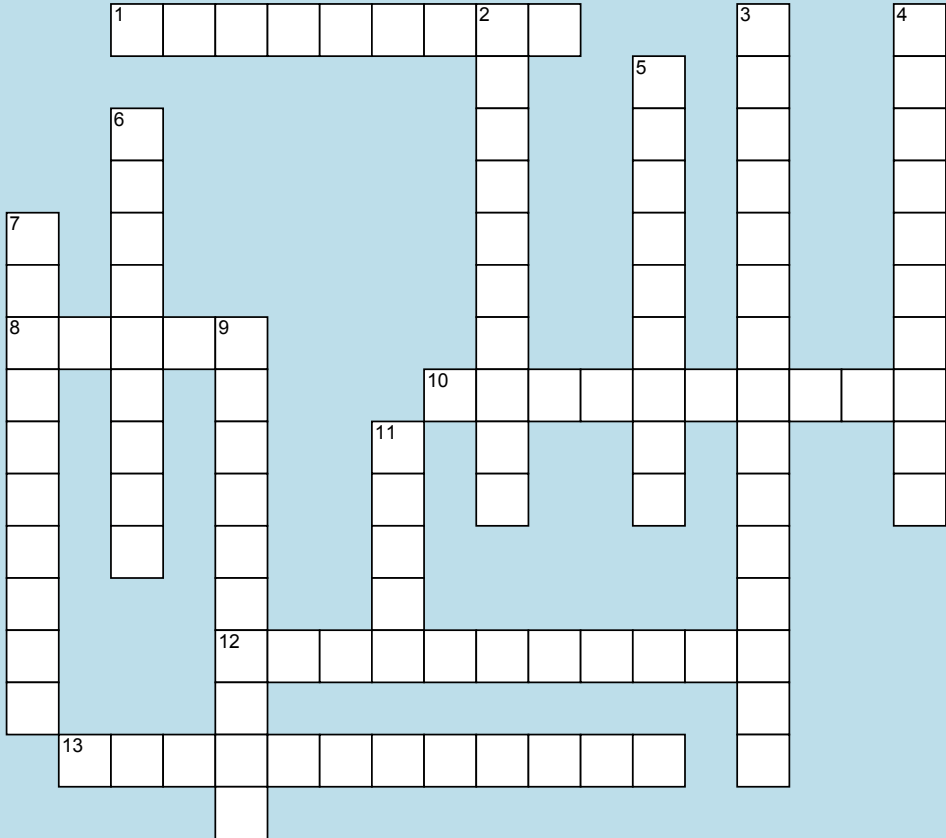
Jason Brady (215) 508-3310

SUSTAINABILITY TEAM

Rachel Martin (412) 802-6161

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Winter Crossword



Across

- 1 Phil coleman was a _____ kid
- 8 Environmental Hero
- 10 Home of first oil well
- 12 Farmland is lost to
- 13 Remote Pacific Island

Down

- 2 Early forest ranger (not the conservative columnist)
- 3 Bills that died in both PA houses
- 4 Sudden, though not total, die off a species
- 5 Poet Featured in this issue
- 6 Tax bills that died in PA Senate
- 7 Party that will control both PA Houses
- 9 Home of Aldo Leopold
- 11 Contemporary of Edison who argued for distributed power generation

Answers can be found on Page 32

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