



# Group Against Smog and Pollution, Inc. Hotline



Winter 2011

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## In this issue

Monitoring in the Marcellus Region	1
The Conference on Shale Gas Health Effects	1
GASP Challenges Chesapeake Energy Marcellus Shale Permits	3
GASP in the News in 2010	4
Soot: Now It's Diabetes Too!	4
Recent Letters to the Editor from GASPers	5
What Did GASP Do in 2010?	6
The GASP Films of the 1970s	9
Greening Your Bookshelf	10
A Successful GASPtobefest	11

## Monitoring in the Marcellus Region

by Sue Seppi, GASP Project Manager

Should we be concerned about air emissions from Marcellus gas operations in southwest Pennsylvania? Yes—especially given the growing scale of gas operations. To answer this question with more certainty, a coalition of environmental groups has been actively forming citizen surveillance groups to check up on both air and water quality in regions of Marcellus well activity. The project is known as the Marcellus Citizen Stewardship Project (see “In The Marcellus Drilling

Fields,” Fall 2010 Hotline). The coalition has provided several educational training sessions, developed an extensive informational guide (which will soon be available on the GASP website) and begun monitoring activities.

GASP has the capability to monitor for most of the criteria pollutants, radiation, total volatile organic compounds (VOCs), and methane. VOCs are of special interest because they include many hazardous

continued on page 8

## We Have Been Where You're Going The Conference on Shale Gas Health Effects

by Kate St. John, GASP Board Member

Pennsylvania is at the beginning of a Marcellus Shale gas boom which will last for 30 years. At the end of 2010 there were fewer than 3,000 wells. If all goes as planned there will be 30,000 to 60,000 more.

Unfortunately, very little is known about how this will affect our health and environment because the process for extracting shale gas, called high volume slick water hydraulic fracturing, or “fracking,” has been in use for only a decade. The first widespread fracking began in Texas, Colorado and Wyoming in the late 1990's. No significant deep shale gas drilling occurred in Pennsylvania until 2008.

The gas rush continues with little information, so on November 19, 2010 the University of Pittsburgh's Graduate School of Public Health (GSPH) convened a day-



PHOTO: MAREN COOKE

At the conference, Dr. Robert Field of the University of Wyoming described how the least populated county in the least populated state has the 10th worst ozone problem in the U.S.

Group Against Smog and Pollution, Inc. (GASP) is a nonprofit citizens group in southwestern Pennsylvania working for a healthy, sustainable environment. Founded in 1969, GASP has been a diligent watchdog, educator, litigator, and policy maker on many environmental issues, with a focus on air quality in the Pittsburgh region.

continued on page 2

## Conference on Shale Gas Health Effects continued from page 1

long conference entitled *Health Effects of Shale Gas Extraction: What is known and what can we predict?*

As the conference opened, Dr. Bernard Goldstein drew thought-provoking parallels between Marcellus shale drilling and oil exploration. He described how BP's Gulf oil spill was a predictable incident, not an accident, and how its social effects and long term ecological effects are far greater than its initial toxicity. He told how BP deemed the composition of the oil dispersant to be a proprietary trade secret, which prevented the government and the public from making appropriate health decisions while the dispersant was in use. This secrecy must end to protect public health. He urged that we start collecting health data now because retrospective exposure assessments are both expensive and inaccurate.

Dr. Goldstein was followed by twelve speakers from around the country who addressed a wide range of shale gas issues. Of special interest were four presentations that touched on air quality.

Dr. Robert Field of the University of Wyoming described how the least populated county in the least populated state has the 10th worst ozone problem in the U.S. Remarkably, ozone non-attainment occurs in Sublette County, Wyoming in the winter. The onset correlated with shale gas drilling expansion in the Upper Green River Basin, but was that the cause? Dr. Field described how his team's monitoring and modeling techniques showed that gas industry fugitive emissions led to ozone formation. Wyoming's governor has now asked EPA to designate the Upper Green River Basin as an ozone non-attainment area. As Dr. Field said, "If we have learned anything, it's that legislation improves air quality."

Dr. Jane Clougherty of the GSPH explained how air pollution causes more illness if it is coupled with social stress. This is called the Rosetto Effect because the polluted town of Rosetto, PA thrived as a healthy, stable, supportive, Italian community while the people in next door Bangor fell ill from the same pollution because they did not have a strong social

support system. Thus we should not be surprised if we see more illness related to air pollution in gas boomtowns because they are experiencing an influx of new workers, rapid social change, the industrialization of their landscape, and a contentious atmosphere of neighbor against neighbor.

Nick Lazor from PA DEP described DEP's findings from their short-term air quality study in the Marcellus gas fields of southwestern Pennsylvania. Preliminary data indicate that short-term exposure is not above the legal limits but additional short term and long term studies are recommended. Members of the audience suggested the DEP perform unannounced and continuous monitoring as well.

Finally, a team of three public health professionals (Roxana Witter, John Adgate and Jim Rada) described Garfield County, Colorado's experience of the shale gas boom from its slow start in 2003 to the proliferation of wells in 2008— many drilled near homes and schools. By then it was clear that there were adverse public health effects for those in close proximity to shale gas production. The biggest concern was air quality, especially after monitoring of ambient air near eight well sites showed high levels of volatile organic compounds and dangerous peaks of toxic BTEX compounds during the one week period of well completion. Shale gas extraction poses an acute 7-day exposure risk for children living near the well pads and an increased long term cancer risk for all residents.

Jim Rada explained how Garfield County's commissioners acted on this information by requiring a Health Impact Assessment before approving new well permits in Battlement Mesa. His message to us was simple and stark: "We have been where you're going." Pennsylvania will soon experience the issues that Colorado is struggling with.

At the conference we learned that pollution from intensive shale gas development causes regional air quality problems and it makes people sick. Because of Marcellus shale, GASP will have plenty of work to do in the next 30 years.

For links to a complete conference agenda and online presentations, visit [www.gasp-pgh.org](http://www.gasp-pgh.org).



The **Hotline** is the quarterly newsletter of the Group Against Smog and Pollution, Inc.

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### GASP Mission Statement

GASP will act to obtain for the residents of southwestern Pennsylvania clean air, water, and land in order to create the healthy, sustainable environment and quality of life to which we are entitled.

### Methods of Achieving Mission

GASP is a citizens' group based in Southwestern PA which focuses on Allegheny County environmental issues. When pertinent to these concerns, we participate in state and national environmental decisions.

We believe in the public's right to receive accurate and thorough information on these issues and to actively participate in the decision making process.

To achieve our environmental goals on behalf of our membership, GASP will advocate, educate, serve as an environmental watchdog, mobilize action, and litigate when necessary.

We will work both independently and in cooperation with like-minded individuals and groups as determined by the Board of Directors.

We will uphold GASP's reputation for scientific integrity, honesty, and responsible involvement.

# GASP Challenges Chesapeake Energy Marcellus Shale Permits

by Joe Osborne, GASP Legal Director

As regular Hotline readers know, Marcellus Shale natural gas production results in significant air pollution (see “Marcellus Shale: A Threat to Our Air,” Fall 2010 Hotline). Compressor engine exhaust, venting from storage tanks, and raw natural gas emissions during well completions are just a few of the many sources of air pollution associated with natural gas production. Multiple studies show the emissions of smog-forming pollutants in regions where deep shale gas drilling is prevalent can exceed emissions from all motor vehicles.<sup>1</sup> This is particularly bad news in the Marcellus region because two of the most significant pollutants generated by natural gas operations—nitrogen oxides and volatile organic compounds—transform into ozone and particulate matter in the ambient air. Much of the Marcellus region already fails to attain federal health based standards for both ozone and particulate matter. If Marcellus Shale air emissions remain unchecked as this industry continues to grow, our existing air pollution problems will only grow worse.

GASP is working hard to reduce this growing industry’s negative impact on our air quality. As part of this effort, in mid-October GASP filed an appeal before the West Virginia Air Quality Board, challenging two air permits issued to Chesapeake Energy for a large Marcellus Shale operation in West Virginia’s northern panhandle, about 10 miles from the Pennsylvania border. The appeal was filed on behalf of Bill Hughes, a West Virginia resident living near the Chesapeake gas field and member of the Wetzel County Action Group, a local citizens group focused on the economic, social, and environmental impact of Marcellus Shale gas operations.<sup>2</sup>

The permits allow the construction of two large natural gas compressor stations. With these two new facilities included, the Chesapeake gas field operations would be made up of three compressor stations; over 25 well pads; and a complex, interconnected network of pipes, storage tanks, and flares, all five miles or less from each other.



The Pleasants compressor station under construction. Pleasants is one of the two compressor stations that are the subject of the appeal.

Our appeal challenges two aspects of the West Virginia DEP’s permitting process for these compressor stations. First, WVDEP claims it has no legal authority to regulate the significant air emissions from natural gas wells and associated equipment such as storage tanks and dehydrators often found at well pads. WVDEP’s claim misinterprets West Virginia law and is plainly contrary to the state’s air permitting obligations under the federal Clean Air Act (CAA).

Second, our appeal challenges WVDEP’s decision to permit each of these compressor stations as separate sources. The CAA establishes tougher air pollution control requirements for sources that emit large quantities of air pollution, and the Act requires interconnected equipment like Chesapeake’s operations in Wetzel County to be “aggregated” and treated as a single source. By dividing these pollution sources up piecemeal and treating them as separate minor sources, WVDEP is allowing Chesapeake to evade the major source permitting obligations of the CAA, including requirements to install pollution control devices and perform air modeling to ensure emissions from the source will not result in violation of ambient air quality standards.

A hearing before the West Virginia Air Quality Board is set for April 6th. If we prevail, the result will be a reduced air pollution burden for Wetzel County residents like Bill and for downwind residents in southwestern Pennsylvania and beyond. Further, a positive decision will clearly establish WVDEP’s duty to regulate all stationary air emissions units in Marcellus gas fields statewide and perform source determination analyses to properly identify and control emissions from major air pollution sources in the Marcellus. We will keep you updated as the case progresses.

1. Al Armendariz, Emissions from Natural Gas Production in the Barnett Shale Area (Jan. 26, 2009) at page 1; Colorado Dept. of Public Health & Environment, Air Pollution Control Division, Oil and Gas Emission Sources Presentation for the Air Quality Control Commission Retreat (May 15, 2008) at pages 3-4.

2. More information about WCAG available at: [www.wcag-wv.org](http://www.wcag-wv.org). 

# GASP in the News in 2010

Part of GASP's mission is to educate the public about air quality issues, and one way to reach the public is through media sources. Listed below are a few of the article titles and sources mentioning GASP from the past year. A complete list, including links, can be found at [www.gasp-pgh.org](http://www.gasp-pgh.org).

"Task force recommends Allegheny County retain, but modify, air pollution program," Pittsburgh Post Gazette, January 10, 2010

"County's air pollution plan draws criticism," Pittsburgh Post Gazette, March 5, 2010

"Cheswick Power Plant scrubber will cut mercury emissions, operator says," Valley News Dispatch, March 25, 2010

"Turnpike to Build No Idle Clean Air Facility for Truckers at New Stanton Service Plaza," readMedia, April 5, 2010

"Pittsburgh loses worst air ranking," WDUQ radio, April 28, 2010

"Allegheny County breaks ground with limit on diesel idling," Pittsburgh Tribune Review, May 19, 2010

"Council pushes for clean development," Pittsburgh Post Gazette, June 2, 2010

"Campers call attention to environmental legislation before City Council," Pittsburgh Post Gazette, July 16, 2010

"Plan to cut emissions from construction vehicles," WDUQ News radio, September 2, 2010

"Marcellus air impact uncertain," Pittsburgh Tribune Review, October 20, 2010

"Burning Question: Is Backyard Trash Incineration Safe?," Allegheny Front, October 20, 2010

"Four decades ago, Pittsburgh-based GASP joined a new wave of citizen environmentalism—and the group is still here." Pittsburgh City Paper, November 25, 2010

"Clairton air quality plan is better, but not good enough, advocates say," Pittsburgh Post Gazette, December 17, 2010



## Mapping Mortality

The Pittsburgh Post-Gazette published an 8-part series on air pollution in December 2010 called Mapping Mortality. Thanks to reporters Don Hopey and David Templeton for their coverage on major, stationary sources of air pollution. The authors hit the theme repeatedly: air pollution harms humans, especially in our region. Links to each of the main articles and our comments can be found at [www.gasp-pgh.org](http://www.gasp-pgh.org).

## Soot: Now It's Diabetes Too!

by David Eibling, M.D. and Peri Unligil, M.D., GASP Board Members

The effects of air pollution on the respiratory system have been recognized for eons, and over the past several decades the health effects of fine particulates have assumed ever-increasing prominence. More recently, recognition that ultra-fine particulates (PM<sub>2.5</sub>) impact the cardiovascular system has dramatically altered the mechanistic model most of us have assumed to be operative. Surprisingly, it was discovered that heart attacks and strokes increased during periods of high PM<sub>2.5</sub> pollution, and laboratory studies confirmed substantial changes in vascular reactivity and fibrinolysis (clot dissolving activity) with only minimal levels of carbon soot.

Confirmatory evidence has now suggested that the common pathway is the promotion of inflammation, mediated by the transfer of the ultrafine particles directly through the gas-exchange membranes of the lungs into the bloodstream. It would seem as if our bodies' defenses evolved to address bacteria, viruses, inert proteins, all of which are several orders of magnitude larger than the nanometer sized soot particles.

Diabetes is a chronic disease that secondarily affects numerous organs and systems. It is associated with a wide variety of costly complications that directly and indirectly impact individuals, families, communities, and nations. Due primarily to the increasing incidence of obesity, the burden of diabetes in western civilization is rising at an alarming rate, and will undoubtedly continue to usurp medical resources from other needs in the next several decades.

Several investigators recently noted that patients with diabetes seemed to have a disproportionately increased risk of cardiovascular events with high levels of ambient PM<sub>2.5</sub>, and wondered if the risk of diabetes *itself* may correlate with levels of soot. In the October 2010 issue of *Diabetes Care*, Pearson and co-authors,<sup>1</sup> using population-based diabetes prevalence data and EPA PM<sub>2.5</sub> data across the nation, verified the validity of this hypothesis. Their study used county-level granularity, which averages both diabetes risk and PM<sub>2.5</sub> levels, and demonstrated a 1% increase in diabetes prevalence with each 10% increase in PM<sub>2.5</sub>. The authors

continued on next page

# Recent Letters to the Editor from GASPers

## Pittsburgh Post-Gazette: The county should care about air quality and food safety equally

Tuesday, December 28, 2010

The Post-Gazette series on air pollution (“Mapping Mortality,” Dec. 12-19) reminds us that the Allegheny County Health Department regulates both air pollution and food establishments in the county.

Its recent closure of three establishments that had been operating in an unsafe manner illustrates that it does not tolerate restaurants that endanger the customer’s health. But it seems to have no compunction about letting local air pollution sources continue to inflict sickness and death upon us, as the PG series makes clear.

How can the department get away with such inconsistent behavior? The answer is simple: We who live here care more about roaches than fine particulates. We simply don’t raise a fuss when, for example, the Health Department says “be my guest” and allows the Cheswick power plant to continue to operate without pollution controls (“Cheswick Power Plant Gets OK to Run During Repairs,” Dec. 17). The scrubber failed almost immediately after it was installed.

The mission of the health department is to safeguard the public’s health, whether the danger is foodborne illness or toxic air pollution. The public must demand more from the department and those local leaders who are so quick to dismiss that our region has a serious air pollution problem. Only then will breathing no longer be hazardous.

Thanks to the PG for shining a huge spotlight on this important issue.

Walter Goldberg

## Pittsburgh Tribune-Review: Drilling fouls air

Friday, January 7, 2011

The news story “Natural gas drillers’ damage to roads debated” (Dec. 29 and TribLIVE.com) paraphrases Kathryn Klaber, executive director of the Marcellus Shale Coalition, when it states that “any air quality problems caused by drilling are small compared to those caused by power plants or vehicles emitting pollutants.”

We can debate whether the benefits of natural gas drilling outweigh the risks, but we can’t debate the facts: Numerous studies indicate natural gas production and transmission generate astonishing quantities of air pollution.

Consider the following:

\* A 2009 Southern Methodist University study found summertime emissions of smog-forming pollutants from the oil and gas sector in the Dallas-Fort Worth area exceed emissions from motor vehicles.

\* A 2008 analysis by the Colorado Department of Public Health and Environment concluded that smog-forming emissions from Colorado’s oil and gas operations exceed vehicle emissions for the entire state.

\* In 2009, for the first time in the state’s history, Wyoming failed to meet federal health-based standards for air pollution. According to the Wyoming Department of Environmental Quality, emissions from the state’s growing oil and gas sector are to blame.

The good news is that practical, cost-effective technologies exist to significantly reduce air emissions. The resources this industry currently dedicates to denying the well-documented environmental risks its activities pose would be more responsibly spent on efforts to minimize those risks.

Joe Osborne

## Diabetes

continued from page 4

utilized a complex multi-variant analysis and controlled for known risk factors (one of which, interestingly, is the density of fast food restaurants in a county), so their findings are most likely highly valid, and in fact may underestimate the actual risk due to the use of averaged data. Moreover, the effect was not eliminated when the sites with highest PM2.5 levels were removed from the analysis. Finally, the effect was present even in counties which had PM2.5 in “acceptable” range according to EPA standards.

Once again, it appears the culprit is inflammation. Pearson points out that animal models suggest that individual sensitivity to soot-induced inflammation is related to individual levels of obesity. He and co-authors postulate that “obesity may play a permissive role in priming the body for pollution-induced

inflammation”. Substantial implications can be derived from this observation, suggesting a double-hit hypothesis: *if one’s social environment contributes to obesity and one’s physical environment includes soot-laden air, the risk of diabetes is higher than with either alone.*

Human health is inexorably linked to a nearly infinite number of factors, many of which are not modifiable, but some of which are. Air quality is one factor which *is* modifiable at the societal level. The will to modify risk for human diseases must begin with the premise that air quality matters, and that the costs to society of improving air quality are justified by the resulting increase in the quantity and quality of productive lives of its citizens. The addition of diabetes to the list of diseases impacted by air quality adds further to this justification.

1. Pearson J, Bachireddy C, Shyamprasad, S, Goldfine A, Brownstein J. Association between Fine Particulate Matter and Diabetes Prevalence in the US. *Diabetes Care*, 33:2196-2201, 2010.



# What Did GASP Do in 2010?

Often GASP's staff is so busy that we neglect to take the time to update our members on our important work. The new year provides a natural opportunity to fix that. So here's a summary of some of the things we've worked on in 2010 —things that wouldn't have been possible without your generous support. Thank you!

## Campaign to Reduce Diesel Emissions

Spring 2010	Campaigned for approval of the local off-road construction idling regulation, which was ultimately approved by Allegheny County Council and the Chief Executive in May 2010.
6/4/10	Spoke at the PA Turnpike press conference in support of their installation of a new truck stop electrification facility.
6/10/10	Served on the "On the Road: Sustainable Roads Maintenance, Operations & Technologies" panel, at the APWA Western PA Chapter Equipment Show and Seminar in Franklin Park, PA with a presentation on Allegheny County Construction Vehicle Air Quality Standards.
July 2010	Worked with Pittsburgh City Council and a consortium of environmental, labor, faith, and community organizations to introduce Clean Construction legislation (see the press conference introducing our clean air and clean water bills on our website: <a href="http://www.gasp-pgh.org">www.gasp-pgh.org</a> ).
7/15/10	Participated in youth press conference urging passage of the clean construction legislation (see footage on our website: <a href="http://www.gasp-pgh.org">www.gasp-pgh.org</a> ).
7/28/10	Served as moderator and presenter for the Environmental Protection Agency's "Reducing Pollution from Diesel Engines in Pittsburgh: Yesterday, Today and for the Future," symposium in Pittsburgh.
9/1/10	Proposed Allegheny County Clean Air Fund expenditure of \$800,000 for cleaning up construction equipment used by small contractors in Allegheny County, which was passed by Allegheny County Board of Health.
10/20/10	Presented at the Clean Diesel 10 conference in Washington, D.C.
11/15/10	Conducted a webinar presentation for the Philadelphia Diesel Difference group.

## Marcellus

5/28/10	Submitted comments to Pennsylvania Department of Environmental Protection (PADEP) regarding proposed ozone transport commission control measures.
6/28/10	Submitted comments to PADEP regarding proposed air quality permit exemptions for oil and natural gas.
7/14/10	Tabled at Indiana County Expo on Marcellus Shale (in conjunction w/ League of Women Voters).
7/19/10	Spoke at Pennsylvania Student Environmental Council Marcellus Shale rally.

7/21/10	Served as panel speaker for the Allegheny County Council Marcellus Shale public hearing.
7/26/10	Testified at PADEP hearing regarding oil and gas cementing and casing regulations.
8/9/10	Wrote additional comments to PADEP regarding oil and gas cementing and casing regulations.
9/1/10	Testified before Allegheny County Board of Health regarding need for county regulations to minimize the air impacts of Marcellus Shale activity.
9/13/10	Testified at hearing before Pittsburgh City Council regarding city-wide ban on Marcellus Shale drilling.
10/13/10	Appealed West Virginia Department of Environmental Protection construction permits for two Chesapeake Energy natural gas compressor stations.
10/19/10	Gave presentation "Minimizing the Air Impacts of Marcellus Shale Activity in Allegheny County" before Allegheny County Board of Health Air Advisory Committee.
11/1/10	Pittsburgh Post-Gazette published our editorial: Shale Gas Can Pollute the Air, Too.
11/2/10	Submitted written comments (with Clean Air Council) to PADEP regarding General Permit – 5 Natural Gas Production Facilities.
11/9/10	Delivered comments to City Council re: Marcellus ban in City of Pittsburgh.
12/13/10	Submitted written comments to PADEP regarding Shamrock Compressor Station Draft Permit.
12/14/10	Submitted written comments (with Clean Air Council) to PADEP regarding General Permit – 11 Nonroad engines.
2010 and ongoing	Worked with a coalition of academic and environmental organizations to develop a Citizen Stewardship Project to monitor Marcellus Shale Activities. <ul style="list-style-type: none"> <li>• Monitored air at three locations using GASP monitoring equipment (Fayette, Butler, West Virginia, assisted in Washington County).</li> <li>• Wrote portions of the Stewardship Project Guide Book.</li> <li>• Presented information regarding impacts from Marcellus natural gas operations at two Citizen Stewardship coalition events.</li> </ul>

## Smoke Readers Program

2010 and ongoing	GASP recruits a team of volunteers who are trained to monitor visible emissions (i.e. smoke) from air pollution sources and report violations of visible emissions standards.
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### 1997 PM2.5 State Implementation Plan for Liberty Clairton (1997 PM2.5 SIP)

1/14/10	Testified at hearing before Allegheny County Health Department (ACHD).
1/21/10	Submitted written comments (with PennFuture) to ACHD.
2/26/10	Sent letter to EPA Administrator Lisa Jackson urging EPA to reject the SIP.
3/2/10	Testified at Allegheny County Council meeting
3/10/10	Testified at Allegheny County Board of Health meeting.
4/20/10	Testified at Allegheny County Council meeting.
5/19/10	Gave presentation to Mon Valley REACH group.
12/16/10	Testified at hearing before the ACHD regarding revised SIP.

### Air Pollution Permits

3/5/10	Submitted written comments to ACHD regarding revised installation permit for RRI Cheswick scrubber.
4/13/10	Negotiated an agreement with RRI Energy to limit lead emissions from their Cheswick Power Station.
7/20/10	Testified at ACHD hearing and submitted written comments regarding draft Clairton Coke Title V operating permit.
9/21/10	Submitted written comments (with PennFuture) to ACHD regarding Edgar Thomson Title V operating permit.
9/21/10	Submitted written comments (with PennFuture) to ACHD regarding GE Bridgeville Title V operating permit.
11/11/10	Submitted written comments to ACHD regarding McConway & Torley Installation Permit.
11/15/10	Submitted written comments (with PennFuture) to ACHD regarding Cheswick Power Plant Title V operating permit.
12/13/10	Submitted written comments (with PennFuture) to ACHD regarding Neville Chemical Title V operating permit.

### Miscellaneous Regulations

1/4/10	Submitted written comments to PADEP regarding proposed outdoor wood boiler regulations.
6/30/10	Submitted written comments to ACHD concerning Allegheny County Air Monitoring Network.
8/27/10	Testified at Philadelphia EPA hearing regarding proposed Clean Air Transport Rule.
9/21/10	Testified at Pittsburgh EPA hearing regarding proposed Coal Combustion Waste Regulations.

### General Air Pollution Presentations

2/25/10	Monroeville Rotary Club
3/9/10	Girl Scouts in Apollo, PA
3/17/10	Sustainable Community Development course at CMU
3/30/10	University of Pittsburgh Free the Planet event
6/7/10	ReMed
6/24/10	Student Conservation Association, Summer Youth Project
7/6/10	Pittsburgh Cares E-Serve summer camp
7/9/10	MOVE-IT Green Jobs training program
7/15/10	Press event with E-Serve students
8/2/10	Student Conservation Association
8/2/10	Summer Dreamer's Academy Eco-Warrior Camp
9/1/10	Children's Institute idling resolution meeting
9/8/10	MOVE-IT Green Jobs training program
9/14/10	Idle Free Municipal Leaders
9/29/10	Idle Free Webinar
10/19/10	Slippery Rock University Student Nonprofit Association
10/22/10	Bioneers Workshop
11/9/10	MOVE-IT Green Jobs training program
11/15/10	Braddock Youth Project—Diesel Idling Project
12/15/10	Sustainable Pittsburgh, C4S Sustainability Coordinator Meeting

### Tabling Events

5/1/10	Get Green Inside Event at the Science Center
5/10/10	Penn Future Event in Pittsburgh on Climate Change
6/5/10	"Gasland" Movie Preview in Pittsburgh
6/18/10	Health & Wellness Event (Southpointe)
6/28/10	PA School Bus Association Convention (Seven Springs)
7/24/10	Celebration in the Park (North Side)
7/31/10	Venture Outdoors Family Festival (McKinley Park)
8/28/10	Venture Outdoors Family Festival (Allegheny Commons)
8/29/10	Phipps Tomato and Garlic Festival (Phipps Conservatory)
8/29/10	Rachel's Sustainable Feast (Downtown)
10/9/10	Wilkins School Community Center's Eco Fest

### Miscellaneous

May & June 2010	Participated in the Coalition for Healthy Cosmetics Campaign
10/2/10	Held a kayak outing with air/water quality focus with Venture Outdoors
2010	Participated in Sustainable Pittsburgh's Business Climate Coalition 

## Monitoring in the Marcellus Region continued from page 1

chemicals. There isn't an ambient air standard for total VOCs as there is for criteria pollutants, but other regulations partially address them. Many pieces of equipment in natural gas production emit VOCs, including dehydrators, condensate tanks, engines, and impoundment pits. Fugitive emissions and venting at the well site as production begins also contribute.

GASP and our coalition partners are working to give citizens a means to keep tabs on Marcellus related pollution using basic visual and sensory observations such as recording odors or seeing a sheen on water. The coalition is working to document and characterize these aspects of air and water quality around Marcellus gas operations. In addition, various pieces of monitoring equipment can be used.

### **GASP's air monitoring activities in the Marcellus region to date:**

1. The first site monitored was in Washington County, in an area heavily populated with Marcellus gas wells. The vendor of some of our monitoring equipment decided to help out and met with a resident that had been in touch with GASP due to concerns about drilling related emissions. Monitoring in the general region did not show overly high readings of total VOCs or methane. At the home of another resident who had been very public about air quality concerns from nearby natural gas operations, though, high levels of total VOCs were measured—as high as 50 ppm in the driveway and continuing elevated readings walking around the property. The PA Department of Environmental Protection (DEP) followed up with their own measurements but has not yet released the data. In this instance there was no odor and the cause has not yet been determined.

2. The second monitoring spot was in southern Fayette County at a residential site which was brought to GASP's attention at a Marcellus Citizen Stewardship educational presentation in the area. The worried residents indicated multiple health problems including a skin rash. The residents stated they had previously stopped drinking the local water but were still suffering various illnesses that they attributed to air emissions coming from natural gas operations, noting very bad odors on occasions. The family whose property was being monitored reported that their three children now have high blood pressure.

GASP's air monitoring did not discover total VOC emission spikes or criteria pollutant violations. It should be noted that some hazardous pollutants can cause health problems at very low levels, and GASP's equipment is not monitoring for every possible harmful chemical. The Center for Healthy Environments & Communities also had air monitoring done in the area, and preliminarily, at least, it

appears there were no obvious spikes. The residents reported that while monitoring was underway, though, the noise level from the compressors was lower than normal, perhaps indicating that some of the equipment was not in operation. This brings up the possibility that we were monitoring atypically low emission levels. DEP later visited the site but, as DEP also noted, according to the residents, not all the compressors were operating during their brief monitoring. The DEP monitoring equipment wasn't left on site and the monitoring data that was recorded hasn't been released yet.

The coalition will be looking to get more definitive answers to Marcellus air emissions by deploying some additional equipment in the near future .

3. Around Thanksgiving, the GASP monitoring equipment traveled just over the border to West Virginia to measure baseline air quality on a family farm that has nearby drilling which will be increased considerably near the property. Baseline monitoring is an important component of keeping tabs on emissions where natural gas operations are expected to begin or increase. No unusual measurements were recorded as would be expected in baseline monitoring.

4. The last monitoring was in Butler County near a variety of drilling activities, one being a large cryogenic plant for natural gas. More drilling activities are expected in this area. The resident complained of odors but during the time he conducted monitoring, no odors or unusual spikes in measurements were noted.

GASP will continue monitoring air quality in the community, and may deploy more sensitive, specialized monitoring equipment that can identify specific chemicals, even at low, but potentially hazardous concentrations for chronic exposure. If there are such indicators, residents can use this information for follow up with the appropriate authorities to help remedy the situation. GASP and coalition partners will be reporting the basic sensory information as well as any coalition equipment monitoring to a centralized web site known as Fracktracker ([www.fracktracker.org](http://www.fracktracker.org)).

GASP's position remains that there should be a Marcellus drilling moratorium until it is clear that all regulations needed to ensure environmental and personal safety have been enacted and will be enforced. GASP does not feel this has yet occurred. There is a lot of scientific study that remains to be done on the impact of this large scale operation in Pennsylvania, and we advocate for that. Meanwhile, GASP is engaged in work on legal, activist and monitoring fronts that attempt to characterize and improve the safety of the ongoing Marcellus activities.

If you live in an area with Marcellus drilling and believe pollution has increased as a result, we may be able to conduct air monitoring. Email Sue at [sue@gasp-pgh.org](mailto:sue@gasp-pgh.org) to discuss your situation. The monitoring is free. 

# The GASP Films of the 1970s

by James Longhurst, Ph.D.

*This is the seventh in a series of articles by James Longhurst. Dr. Longhurst, a former member of the GASP Board of Directors, received his Ph.D. from CMU and is an Assistant Professor of History at UW-La Crosse. His book on the history of air pollution politics in Pittsburgh, Citizen Environmentalists, is now available from the University Press of New England.*

Last time, I discussed GASP's educational projects and the cookie-based fundraising that supported them in the 1970's. Perhaps the most visible of all these projects were the widely-distributed short films *Don't Hold Your Breath (Fight for It!)* (1972) and *I Belong Here!* (1975).

Partly funded by federal grants and partly by fundraising proceeds, the 18-minute *Don't Hold Your Breath* was the work of GASP member Esther Kitzes. It opens with a scene of elementary-school age children on a playground, gathered around a piece of chalk graffiti: "Pittsburgh stinks," one of them reads, and they agree: "Yeah, Pittsburgh does stink." The following scenes include a variety of Pittsburghers discussing air pollution, including Duquesne University biologist Emmanuel "Manny" Sillman; Linda Compano, a registered nurse; and CMU economist and GASP board member Lester Lave.

The film was distributed and reprinted for a number of outlets nationwide, and GASP rented it out to organizations throughout Pennsylvania. It was screened in Harrisburg, as a local newspaper noted that "members of the State House of Representatives sat through a 'dirty movie' and then heard a call for stiffer fines for polluters. The movie . . . 'starred' the belching black smoke from the quenching operations at the Clairton Coke Works."



Belching black smoke from the Clairton Coke Works as the "star" of the 1972 GASP film, *Don't Hold Your Breath*. Photo taken on April 18, 1973.

The next film was *I Belong Here!*, which was originally proposed in a 1971 grant application as *Yes, You Can Fight City Hall*. An early description for the film proposed to "demonstrate how a citizens' group can play an influential role in reducing pollution in any county." The film itself consisted of various scenes of GASP volunteers at work: stuffing envelopes, meeting at home, and testifying at a Variance Board hearing. In an artistic choice that probably made sense in 1972, scenes of actual environmental organizing in the film are prefaced by whimsical set pieces by a mime troupe, whose members attempt, through silent action, to demonstrate the intricacies of community organizing.

"I belong here!" is the rallying cry for the film, a basic statement that citizens possessed an irrevocable right to an active role in regulatory decision making. The last few shots of *I Belong Here!* show an idealized vision of a citizens group, with a symbolic leader proudly leading a ragtag group of smiling nuns, teens, children, women, and men in a triumphant procession. A marching band plays as the activists frolic on the green grass in Schenley Park. A woman's voice provides the explanation for the film's title: "I belong here!" she says with feeling: "If you believe that, then you can walk right up in the corridor of power, on the 60th floor of the U.S. Steel building and say, look, this is my air; you don't own it because you sit in this oak-paneled office."

With *I Belong Here!*, GASP sought to offer itself as a model for citizens groups across the nation. The film offered both an organizational blueprint and a plan for successful intervention in government affairs. The message got out; copies of the films were purchased or rented from GASP by a variety of organizations across the nation throughout the early 1970s. But that last quote also offered a hint as to the limitations of citizen involvement: GASP's continuing clash over U.S. Steel's Clairton plant, where we will conclude this series.

**Next time: The Clairton Saga**



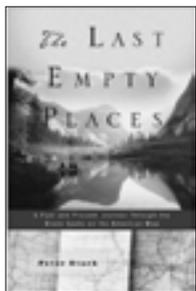
# Greening Your Bookshelf

by Jamin Bogi, GASP Education and Outreach Coordinator

In Jamin's *Greening Your Bookshelf* column, he summarizes books that discuss themes of interest to GASP members whose concerns range far beyond particulate matter and fly ash. This column will hopefully be a landing pad and a take-off point for those interests. No endorsement by GASP of these books or ideas is implied or intended.

***The Last Empty Places* by Peter Stark. Ballantine Books, 2010. 325 pages. *Green Metropolis* by David Owen. Riverhead Books, 2009. 357 pages.**

Sometimes, depending on your mood, a day can feel polluted, start to finish. A banging garbage truck wakes you up two hours early. A rushed, drive-through breakfast of partially hydrogenated whatever is filling, but you're nauseous in an hour. Exhaust from the diesel truck in front of you. VOCs from your desk, cackling coworkers. Yes, sometimes, you long for a pure, untainted place to go to. An empty place.



Peter Stark has made a career of exploring these so-called empty places, the blank spots on maps. Having traveled the world over, he set his sights here in the U.S., exploring spots in Maine, Pennsylvania, Oregon, and New Mexico.

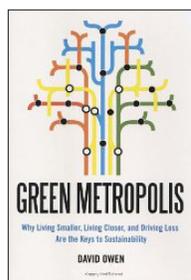
Raised in a log cabin in Wisconsin fifty miles from the boyhood home of John Muir, where he could feel the winter wind cutting at him through cracks in the cabin's daub, he felt he "had inherited this legacy of wilderness." Muir and other seminal "nature" writers like Henry David Thoreau and Aldo Leopold, who take up a sizable chunk of this book, all "grew up in landscapes that were half cultivated, half wild."

*Empty Places* is the story of both cultivation and wilderness. The deep forests of the "Pennsylvania Wilds" had been Native American hunting grounds. The forest saw massacres, kidnappings, and the start of the first global conflict, the French and Indian War. Later came decades of intense logging for multiple tree species, and when the loggers finished sucking the resources out, the Commonwealth was able to buy the depleted land for a dollar an acre in spots. Fast forward eighty years, and you have a blank place, of a sort.

The book flows on quickly through three crisscrossing channels—the author's trip, a narrative of an historical event that happened at or near his destination, and an introduction to a well known nature writer associated with that area. The historical stories rush dramatically by. Natives scalping settlers and counting coup in the Pennsylvania woods. The Spanish adventurer Coronado, pushing a war party up from Mexico, looking for the Seven Cities of Gold and

finding... Kansas. French Canadians being evicted to New Orleans and the meaning of the word "cajun." The actual "nature" writing itself is quite sparse, which isn't necessarily bad. Stark is more concerned with the thoughts of the early American nature writers and how they shape our own beliefs, even today.

*Empty Places* is, ultimately, a meditation on the human impulse to explore and to understand, and the drive to soldier on, to push ahead another mile, to quest. But with seven billion people on the planet, one realizes blank spaces only exist because, well, most of us don't live in them.



*Green Metropolis* by David Owen sits at the spectrum's other, crowded end, where a majority of us now live—the city. His book is too provocative and counterintuitive to do justice to it here, but his main point is simple enough: New York City is the greenest place in the United States.

Owen gives ink to our treasured nature writers as well, but mostly to denigrate their misguided hatred of cities. To be sure, cities were different places one or two hundred years ago, where diseases could spread across town in a few days, and where raw sewage floated by in the streets. Times have changed, but we are often still saddled with Muir or Thoreau's negative views on urbanism. Look again at my first paragraph, and let's reinterpret it as Owen sees it.

Thank goodness the garbage truck came and took away your banana peels and your neighbor's cat litter, for hardly any cost. Luckily, living in a city, you have a few places you can zip into for breakfast when you're rushed—so many choices in so small an area. The truck you're behind in traffic is carrying a full load of fresh produce to your favorite grocery store, and is hundreds of times more efficient than a bunch of people driving to a farmer's stand in the country. Your skyscraper hums with thousands of people in a space that takes up less earth than a Walmart.

Much of *Green Metropolis* shocks with novelty and, then, obviousness. I'll list only a few items. Thoreau's jaunt into the woods, where he was a mile from his nearest neighbor, is a perfect example of sprawl. Tiny cars like the Smart Car or the Nano are terrible for cities, because they make room for

continued on next page

# A Successful GASPtobberfest

**G**ASP supporters, family, and friends gathered in Riverview Park on October 16, 2010 for our annual fundraising event. The festivities were preceded by a nature hike and family-friendly geocaching challenge provided courtesy of Venture Outdoors. Following these outdoor activities, guests returned to the Chapel Shelter for the opportunity to sample a wide array of Eastern European food and drink specialties while being serenaded by the lively music of the Gypsy Strings.

## A hearty thank you to all our sponsors and contributors!

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## Greening Your Bookshelf continued from page 10

more drivers, just like decongesting traffic or adding HOV lanes—all you accomplish is encouraging driving by making it easier and cheaper. LEED certification is too expensive for those truly interested in making an efficient structure, and yet too easy for companies which buy expensive systems that earn LEED points, but don't relate to the larger picture.

I give little space to *Green Metropolis* here in hopes you read it yourself. Owen overreaches and is simplistic in places, but is critical reading for the green set. The two books detail complementary themes we should hold in our minds—wild, empty places can inspire us and deserve protecting, and the best way to ensure that the wilds remain is to make city living as attractive as possible. 



PHOTO: MAREN COOKE

The Gypsy Strings entertained the crowd at GASPtobberfest

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