



# Group Against Smog and Pollution, Inc. Hotline



Spring 2010

[www.gasp-pgh.org](http://www.gasp-pgh.org)

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## GASP Efforts Lead to Emission and Opacity Limits at Steel Plant

by Joe Osborne, GASP Legal Director

On February 16 ACHD issued the final permit for the installation of new steelmaking equipment at Allegheny Ludlum's Brackenridge facility, which is one of the largest sources of air pollution in Allegheny County. The permit provides for the installation of a hot strip rolling mill. This equipment will be used to produce coils and plates of specialty steel. GASP reviewed the draft permit for this facility and submitted detailed comments to ACHD. We are pleased to note that, as a result of our comments, the final permit includes several additional measures to control pollution from the facility.

GASP focused on the permitting process at this facility in part because of the findings of the 2008 *USA Today* report,

"The Smokestack Effect" which ranked over 127,000 schools around the nation by level of exposure to air toxics. Among the Pennsylvania schools that ranked worst were Highlands Middle School and High School in Natrona Heights. Only 109 schools in the United States are believed to have higher concentrations of air toxics than *USA Today* calculated at the Highlands Schools. According to *USA Today* the biggest contributor to the poor air quality at these schools is the Allegheny Ludlum Brackenridge facility. Manganese, a neurotoxic heavy metal, was the pollutant of greatest concern.

Because of issues GASP raised during

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## Don't Be Fuelish, Idling Makes No Cents! PA's New Diesel Idling Law

by Rachel Filippini, GASP Executive Director

A new educational effort, appropriately named "IdleFree PA," is underway in Pennsylvania, helping to inform truck, bus and other drivers of large diesel powered vehicles that unnecessary idling harms human and environmental health, wastes money, and is against the law. With funding provided by the PA Department of Environmental Protection (DEP), GASP has teamed up with American Lung Association and Clean Air Council to create educational materials and conduct presentations about PA's new diesel idling law. The materials are being placed along the turnpike at rest stops,



GASP collaborated with Clean Air Council and American Lung Association to create educational materials like this poster.

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.

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# Updates on GASP Campaigns

by David Eibling, GASP Board Member, and Rachel Filippini, GASP Executive Director

We've been busy with a number of on-going campaigns over the last several months. What follows is a brief update on these projects.

## Fine Particle Pollution in the Liberty-Clairton area

In collaboration with PennFuture, GASP provided extensive comments to ACHD's Air Quality Program on the Liberty-Clairton State Implementation Plan (SIP). Our primary concerns with the plan are that:

- It fails to meet health-based standards near Liberty Borough.
- It ignores the new fine particle standard and instead only aims to meet the old standards that scientists and doctors agree is inadequate to protect human health.
- It pushes back the deadline for meeting the fine particle standards from 2010 to 2015, which means five additional years of unhealthy air.

A March 5th Post-Gazette article, "County's air pollution plan draws criticism," summarized GASP's take on the SIP: *"The county's air quality plan is too little, too late. Worse, the plan fails to provide the basic protections of the [federal] Clean Air Act to at least 80 families living near the coke works," said Joseph Osborne, GASP's legal director. He added that the U.S. Environmental Protection Agency should declare the plan unacceptable and return it to the county.*

To our dismay, the Board of Health accepted the SIP as written at their March 5th meeting, despite comments from the community and GASP. As reported in the March 11th Post-Gazette article, "Liberty-Clairton Pollution Area Approved,"

*But Damian Nunemaker, a Lincoln resident who suffers from asthma, said the air is so bad in the community that he plans to move. He admonished the health board for approving a*

*plan under which the area won't meet health standards until 2015 and asked the board to consider Lincoln residents who have chronic health problems due to their long-term exposure to the pollution.*

*'Consider the people who are concerned about their exposure,' he said. 'You are nurses and doctors. The people there depend on you.'*

GASP and PennFuture have written to the U.S. EPA urging them to take immediate action on the clean air plan proposed by ACHD.

## Air Quality Task Force report

After receiving heavy pressure from GASP, Clean Water Action, and Sierra Club, County Executive Dan Onorato committed to keeping the air program local, but stipulated that a task force be assembled to study the county program and identify areas where the program could be improved. You may recall that Rachel Filippini, GASP's Executive Director, served on this task force and that a report was released earlier this year.

After the Task Force recommendations were released, GASP released its own report detailing issues where we disagreed with the task force and arguing that some of the task force recommendations could, in fact, hurt the local air quality program (Winter 2010 Hotline). The Allegheny County Air Quality Program has since come out with their own response to the Task Force recommendations, including:

- In response to the Task Force's recommendation to use the DEP system as a guide for enforcement, and to upgrade enforcement policies, protocols, and procedures with a system that is fully compatible and integrated with DEP's eFacts website, the Air Quality Program has stated that they've initiated a project using DEP's original contractor

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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 Campaigns continued from page 2

- to integrate enforcement and emissions inventory data into DEP's eFACTS system to replace the current i-Steps software used by the county. This project is slated for completion by the end of 2010. In the meantime, the Air Quality Program says that enforcement data for both ACHD and DEP can be obtained online at the EPA Enforcement Compliance and History Online site: [www.epa.gov/echo](http://www.epa.gov/echo).
- The Task Force had recommended that the Air Quality Program arrange for a comprehensive, independent evaluation of their air monitoring system, including an assessment of whether the existing monitors are appropriately sited. Like GASP, the Air Quality Program did not agree with this recommendation. EPA already requires annual monitor network reviews for all state and local monitoring networks and recently added a requirement that air agencies conduct an in-depth monitor review every 5 years. Allegheny County's 5-year network review will be completed this summer. Requiring an additional evaluation on top of the detailed EPA review would be redundant and would needlessly consume additional air program staff time and funds.
  - The Task Force recommended that the County seek prompt revision to the State law to allow the Environmental Hearing Board to hear and decide appeals from County permits, and that the air program's current 10-day appeal period should be extended to 30 days. The Air Quality Program has responded that a change of state law is outside of their control.
  - The Task Force asserted that ACHD regulations cause confusion in the regulated community. The Air Quality Program responded that Allegheny County companies with locations spanning multiple jurisdictions (including the DEP's) have indicated that ACHD regulations are

not more (or less) confusing than any other jurisdictions in which they operate. The Air Quality Program recommends that the Board of Health invite industry to advise where confusion or frustration exists in Article XXI regulations. GASP supports the Air Quality Program's recommendation—as opposed to having a complete overhaul of the local regulations which would be time and resource intensive.

## Cheswick RRI Plant

The RRI power plant in Cheswick recently installed a scrubber to drastically reduce its emissions of acid-rain-forming sulfur dioxide. RRI has indicated that the scrubber will begin operation this Spring. We are pleased to see this environmentally beneficial project moving forward, but now RRI is requesting a lead emissions limit roughly four times higher than the plant's current emissions (mainly because the scrubber will enable them to burn cheaper coal, which has higher metals content). GASP is leading efforts to persuade RRI to accept a permit condition limiting their future lead emissions to current levels. As quoted in a recent Valley News Dispatch article, our Legal Director Joe Osborne said, "It's a reasonable request. We're merely asking RRI to keep their lead levels in their present range."

Additional news reports include the following:

1. "Cheswick coal plant upgrade may raise lead emissions." Pittsburgh Post-Gazette, February 26, 2010, [www.post-gazette.com/pg/10057/1038765-113.stm](http://www.post-gazette.com/pg/10057/1038765-113.stm)
2. "Springdale Council considers alert system for water threat." Valley News Dispatch, March 3, 2010, [http://pittsburghlive.com/x/valleynewsdispatch/s\\_669796.html](http://pittsburghlive.com/x/valleynewsdispatch/s_669796.html)
3. "Power plant lead levels cause worry in Cheswick." Pittsburgh Post-Gazette, March 20, 2010, [www.post-gazette.com/pg/10079/1044342-54.stm](http://www.post-gazette.com/pg/10079/1044342-54.stm)



## Steel Plant continued from page 1

the public comment period, the final permit includes limits on allowable air emissions of manganese. Further, GASP's comments resulted in additional restrictions on permissible visible emissions (a.k.a. smoke or opacity) from the hot strip mill facility. These visible emission limits are a valuable addition to the permit because visible emission limits serve as a convenient, easily detectable indicator of emissions of particulate matter. Our region continues to struggle to meet the federal health-based standards for this pollutant. Further, a portion of the visible emissions these new permit conditions will prevent would likely consist of toxic metals such as lead and manganese.

Everyone is entitled to breathe healthy air, most of all our children, whose developing brains and bodies are more sensitive to the harmful effects of air pollution. We have a long way to go, but this permit is a step in the right direction. 

## About Manganese

Manganese (Mn) is a silver-colored metal. Consuming modest amounts of manganese in food or dietary supplements is essential to human health; however, in large doses, manganese is toxic, and inhaled manganese is toxic at far lower levels of exposure than ingested manganese.

### Health Effects of Excessive Manganese Exposure:

In Children:

- learning disabilities
- memory problems
- speech difficulties
- walking difficulties

In Everyone:

- irritability
- slowed reflexes
- clumsiness
- hand tremors
- lethargy
- reproductive problems

### Sources of Manganese in the Air:

- steel production
- aluminum production
- power plants
- coke ovens

**PA's Diesel Idling Law  
continued from page 1**

welcome centers, and even wrapped around toll booths. In addition, an educational placemat is being distributed to any interested truck stops and restaurants in Pennsylvania.

As you may recall, the new law restricts most diesel-powered motor vehicles over 10,000 pounds from idling more than five minutes in any consecutive 60-minute period. There are a number of exemptions, including one for trucks with sleeper berths (drivers should be aware that this particular exemption expires May 1, 2010). In addition, buses and school buses are allowed to idle 15 minutes in a 60-minute period.

Unfortunately, the PA law does not specifically allow the Allegheny County Health Department (ACHD) or other local health departments to enforce the law. Only the PA DEP or police can enforce it. If the county idling regulation remains in effect, ACHD will only have the ability to enforce the portions of the regulation that are more stringent than the state law (for example, the weight range of vehicles to which the county law applies is larger than the applicable range under the state law). Thus, if you see someone violating the law, it is best to contact the PA DEP at 1-866-255-5158 or your local law enforcement agency. For more information on the law and diesel idling visit [www.no-idle.pa.gov](http://www.no-idle.pa.gov).

Limiting unnecessary idling of diesel vehicles is important since diesel pollution creates serious public health hazards. Diesel exhaust contains over 40 toxic air contaminants, carcinogens, ozone-forming elements, as well as fine particulate matter ("soot"). Exposure to fine particles has been linked to asthma attacks, heart attacks, lung cancer, strokes, and premature deaths. In Pittsburgh alone, it is estimated diesel fine particles cause 162 premature deaths, 230 heart attacks, 74 cases of chronic bronchitis, and over 2,300 asthma-attacks annually.<sup>1</sup>

Less idling not only reduces air pollution, but saves money too. For instance, school buses consume roughly a 1/2 gallon of fuel for every hour they idle, so if each school bus reduces idling by 30 minutes a day, it would save 45 gallons of fuel per year.<sup>2</sup> This translates into a savings of \$180.00/bus a year, based on a fuel cost of \$4.00 per gallon. According to the Mid Atlantic Diesel Collaborative, "Heavy-duty vehicles use over 1 billion gallons of fuel per year idling, spending almost \$2 billion. This amounts to about 1% of all petroleum imported into the U.S. Idling of truck and locomotive engines emits 11 million tons of carbon dioxide, 200,000 tons of oxides of nitrogen, and 5,000 tons of particulate matter into the air."<sup>3</sup>



**Educational placemat designed for truck stops in PA**

Auxiliary power units or truck stop electrification can supply power for heat, air conditioning, and other amenities in place of idling the truck engine.

Are you interested in ordering placemats, posters or fact sheets for your establishment or hosting a presentation? Just contact GASP's Education Coordinator, Bryan Ritti, [bryan@gasp-pgh.org](mailto:bryan@gasp-pgh.org) or 412-325-7382.

**Allegheny County May Pass Off-Road Idling Regulation**

Several years ago, GASP and other interested stakeholders worked with the Allegheny County Health Department Air Quality Program's Regulation subcommittee to create an off-road idling regulation for the county. The Board of Health approved the regulation in the fall of 2007, but until now it remained unapproved by County Council or the Chief Executive. Finally in March 2010 the regulation started moving again, and as of this writing was recommended for passage by the Health and Human Services committee of Allegheny County Council, chaired by Councilwoman Joan Cleary.

Vehicles that are subject to the regulation are used in construction, mining, rental, landscaping, recycling, landfilling, manufacturing, warehousing, composting, airport ground support, industrial, and other operations, and must have 25 or more horsepower. This regulation does not apply to stationary or portable equipment, or equipment or vehicles used in agricultural operations, or equipment at ports or intermodal railyards.

In general, the regulation says no vehicles or engines subject to this regulation may idle for more than five consecutive minutes, with exemptions for times when idling may be necessary, such as to bring equipment up to proper operating temperature. The entire regulation can be viewed at: <http://legistar.county.allegheny.pa.us/attachments/9206.PDF>.

We're pleased to see that the off-road idling regulation may finally become a reality. Reducing off-road idling is a triple win: protecting human health, safeguarding the environment, and saving money.

1. Clean Air Task Force report, "Diesel and Health in American: The Lingering Threat," February 2005. <http://www.catf.us/projects/diesel/dieselhealth/county.php?c=42003&site=0>
2. From the Environmental Protection Agency's Fuel Savings Calculator -- [http://www.epa.gov/otaq/schoolbus/idle\\_fuel\\_calc.htm](http://www.epa.gov/otaq/schoolbus/idle_fuel_calc.htm)
3. Mid-Atlantic Diesel Collaborative, <http://www.marama.org/diesel/Anti-Idling.htm>



# Marcellus Shale: Drilling Towards Financial Windfall or Environmental Heartbreak

by Sue Seppi, GASP Project Manager

If you've spent much time in Pennsylvania in the last few years, you have likely seen newspaper headlines about Marcellus Shale, a rock formation that often lies more than a mile deep under two-thirds of Pennsylvania.

Although the existence of gas-rich shale here and elsewhere has long been known, it took the energy crisis of the 70s, more recent rising fuel prices, and refinement/expansion of a horizontal drilling technique first patented in 1890 to develop what has become a gold rush atmosphere in several states and now in Pennsylvania. An estimated 50 trillion cubic feet of recoverable gas is held in the Marcellus range. The Marcellus Shale Coalition, the industry trade group, estimates that "up to 1,750 wells will be drilled this year, up from 763 last year [in Pennsylvania]."<sup>1</sup> About 5,000 applications for Marcellus Shale drilling are expected this year.

Besides typical rural sites, leased drilling areas include state forest land and even some urban areas. Lawrenceville, for example, has been eyed by gas development companies who might drill in cemeteries or industrial properties, with royalties paid to businesses or homes above the deep horizontal drilling.

Caught in the midst of a severe economic downturn, land leasing and royalty fees offer financial relief and an American-produced energy supply that is cleaner to burn than coal. Could there be any downside to this "gas rush" that would come close to matching the upside? In the minds of some, the answer is "yes."

Two agencies have expressed serious concerns regarding drilling and water supplies: (1) A Final Impact Assessment Report prepared for the New York City Department of Environmental Protection led that agency to call for "a prohibition on any drilling in the New York City watershed, located upstate." The New York City watershed and reservoirs collect drinking water for nine million people. (2) The EPA presented comments on a Supplemental Generic Environmental Impact Statement (dSGEIS) to the New York State Department of Environmental Conservation (NYSDEC) concerning drilling in the New York Marcellus Shale saying, "Despite the mitigation measures already proposed by NYSDEC in the dSGEIS, EPA has serious reservations about whether gas drilling in the New York City watershed is consistent with the vision of long-term maintenance of a high quality unfiltered water supply."

The drilling process generally involves drilling down and then curving the drill hole into the Marcellus layer, so that the hole will extend for some considerable length within the shale layer. At various times along the way, the drill is extracted and layers of steel piping surrounded by cement



PHOTOS: MAREN COOKE

One might imagine that drilling a hole deep in the ground and then extending the well sideways is an efficient way to get at the gas, with minimal damage to the landscape. However, all the huge machinery required for the drilling and fracking processes means that a great deal of land

is laid waste for each and every well. The fenced-in well head seen here, in the heart of the Allegheny National Forest, is surrounded by no less than five acres of desolation; several additional acres nearby are taken up by plastic-lined pits for fracking water and waste, not to mention the land cleared for broad access roads.

are developed, encasing part of the drilling hole. The drill is extracted again and precise holes are created in the piping at the shale level with small explosives. Later, in a process called hydraulic fracturing ("fracking"), water with added chemicals and granular material such as sand (collectively called "fracking fluid") is sent under high pressure into the pipe and out the holes into the shale to fracture it. The granular material disperses, holding the fractured rock spaces open which releases trapped bubbles of gas.

It is not hard to see that there ought to be tight controls on many parts of this process. Toxic chemicals are used at every stage of the drilling process.<sup>2</sup> Gas drilling regulations and requirements vary from state to state. Unfortunately, the 2005 Energy Bill exempts gas companies using the hydraulic fracturing method from the Clean Water Act, Clean Air Act, Safe Drinking Water Act and the Superfund Law!

There are several issues of concern regarding drilling:

**Hydraulic Fracturing Ingredients:** According to The Endocrine Disruption Exchange (TEDX), a research group that has analyzed hydraulic fracturing fluid information from several states, 65% of the volatile chemicals for which TEDX has Chemical Abstracts Service (CAS) numbers<sup>3</sup> are

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# GASP and National Politics

by James Longhurst

*This is the fourth 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 now an Assistant Professor of History at UW-La Crosse. His book, Citizen Environmentalists, is due out from the University Press of New England in May 2010.*

This series of articles about the history of GASP has briefly touched on events and precedents in Pittsburgh. But GASP was also influenced by events and trends from far outside of Allegheny County.

First and most obviously, GASP was a local incidence of a national phenomenon, what historians call the modern environmental movement. Throughout the 1960s, a series of popular books spread the word about environmental concern. Along with a string of publicized ecological disasters, including the Santa Barbara oil spill, the burning Cuyahoga river, and concern about Alar, Thalidomide and DDT, these developments mobilized interest. But it wasn't until the end of the decade, when young activists were spinning off from other causes, that environmentalism really burst onto the national scene. This movement became more visible to the national media with the first Earth Day on April 22, 1970.

Partly because of the groundswell of popular support, and partly because of the fact that several political figures, including Senators Gaylord Nelson and Edmund Muskie, were successfully involved in environmental matters, neither Congress nor President Richard M. Nixon was entirely opposed to new federal legislation. The 1967 Air Quality Act (AQA), the 1969 National Environmental Policy Act, and the 1970 Clean Air Act amendments (CAA) depended upon state-level public support from environmentalist organizations, but navigated through Congress due to politician's interest. The CAA built upon the foundation of the 1967 AQA to create a novel method for the EPA to enlist the states in the process of controlling their own pollution. In the 1970 CAA, Congress required the states themselves to come up with their own air pollution standards, to hold public hearings on standards and plans to meet them, and finally to send the plans to the newly-created EPA for review. This state implementation plan (SIP) process, combined with support for citizen suits and other federal requirements for public involvement, opened new opportunities for environmental organizations, opportunities that GASP would come to exploit.

While the new federal legislation was important, the new legal philosophy of citizen standing also made GASP's intervention in environmental matters possible. As a legal term, standing refers to a plaintiff's right to bring a legal claim before the court. Throughout the late 1960s and 1970s, the courts deviated from traditional insistence that the parties have some economic interest in the matter at hand. Perhaps the high tide of the citizen standing philosophy before the Supreme Court came in the 1973 decision in *U.S. v. SCRAP*. There, Justice Potter Stewart wrote that "all persons who utilize the scenic

resources of the country, and indeed all who breathe its air, could claim harm."

This expansive Supreme Court ruling encouraged citizen environmentalism on the local level all over the nation. After the battle over federal recognition of strict state air pollution standards in Montana, law professor J. P. McCrory urged the general public to become involved in legal proceedings on environmental matters. "It is clear that every one of us" could be adversely affected by pollution, said McCrory, "so we all potentially have standing" in the courts. In Wisconsin, crusading law professor Joseph L. Sax made it his mission to legitimate the citizen suit and the public's right to represent their interests in court, arguing that "litigation is thus a means of access for the ordinary citizen to the process of governmental decision-making."

These events, far from the banks of the Monongahela, nevertheless shaped GASP's actions and tactics. The environmental movement, new federal legislation specifically requiring public involvement, and developing legal philosophy all set the stage for action in Allegheny County for the rest of the decade.

*Next time: Getting in the Door at the Variance Board*



**"The Arctic region is the single most endangered ecosystem on the planet".** So says, Kit McGurn, the Sierra Club's national expert on the Alaskan Wilderness. No one knows more about the impact of unrestricted development on this environment. Come be a part of a multimedia presentation as Kit describes the growing threat of climate change and oil development to Alaska's most pristine habitats. Kit will explain the problems of the Arctic in a way that is appropriate for adults and children 11 years and older. Join other environmentally conscious citizens and find out what you can do to help.

DRILLS  
THE  
KIT  
McGurn

**Date:** May 20, 2010  
**Time:** 7:00 PM (Doors open at 6:30 PM)  
**Location:** Art Institute of Pittsburgh (First Floor Gallery)  
**Address:** 420 Blvd. of the Allies, Pittsburgh, PA 15219

# Earth Day 1970

## 40 Years of Environmental Activism

by Walter Goldberg, GASP Board Member

With the catastrophe of the Vietnam War, Americans discovered they could yell so loudly that even the politicians could hear them. With a newfound popular voice, ordinary citizens hoped they could make so much noise that maybe they could stave off the environmental collapse that Rachel Carson warned us about in the early 60's.

In the 60's, environmental disaster was all around us. Carson taught us that a fragile peregrine falcon egg was a canary in the coalmine. The oil spill in the Santa Barbara channel in 1969 was another shocker. The newspapers showed oil-covered dead and dying birds and sea creatures. Long after the blowout, nearby beaches were dotted with patches of tar, making it advisable to take an solvent-soaked rag with you for a stroll along the shore.

A view of the beach at Santa Barbara may have been the last straw for then Senator Gaylord Nelson. Perhaps motivated by what he saw, Nelson gave two pivotal speeches in 1969 that sparked the birth of Earth Day. Those speeches were followed by a year of intense work, and Earth Day was born. Nelson fashioned Earth Day to mimic the Vietnam War protests and teach-ins of the time. Did this ever work! Twenty million people participated, in addition to 12,000 high schools and 2000 colleges and universities.

Then came the spin-offs. Pollution control became a national priority. Before that, states did what they could in the face of industry threats to take their companies elsewhere. Here in Pittsburgh, it can be no coincidence that Michelle Madoff



created GASP in 1969. Right away, there was the Clean Air Act of 1970. The Environmental Protection Agency (EPA) was created in the same year. On the heels of the EPA came the Clean Water Act of 1972. Just before that, Congress enacted the National Environmental Policy Act of 1969. This legislation simply required that federal agencies assess the environmental implications of

projects by filing a so-called Environmental Impact Statement (EIS). There was no requirement that the project be environmentally constructive or even benign. It was sufficient that the public be alerted before hand.

In those days I would leaf through the morning paper to see if even a short story crept in about the environment. On the local scene you could read a full-page newspaper ad like this: "Did United States Steel make a mistake building its new headquarters in Pittsburgh?"

And then there was the smell of our fair city. Sultry Pittsburgh summer nights might touch off a bedroom quarrel along this line: "Open the window, dear; I'm suffocating! Followed by, "I'm suffocating too, but the stench will be too much to bear if we open it."

Forty years later, Earth Day is still big news, and an environmental story is likely to be found on the front page on many days. And thus it will be for our grandchildren and theirs. More national and international environmental crises will surely bedevil us. Will they drive nations into competition, finger pointing and wars? Or will they generate cooperation and collaboration? Stay tuned (as if you had a choice). 🚲

## Hays Woods Update

A seven-year struggle over strip-mining Hays Woods, a 637-acre forest within the City of Pittsburgh, has come full circle with Charles Betters, the site's owner, withdrawing his appeal pending before the Commonwealth Court of PA and effectively ending the legal case.

A settlement between C. Betters and Duquesne Light preceded this resolution. Massive electrical transmission towers and lines have long been on the property. Surface mining would have required their needing moved at presumably great expense and difficulty. The settlement gives permanent rights of way to the DLC and effectively blocks sizeable future mining operations on the site.

**History:** In the Spring of 2003 the Pittsburgh Development Group (PDG) filed a permit application to surface mine the wooded heights towering above the Monongahela

by Fran Harkins, GASP Member

River's south bank between the Sandcastle Water Park and Beck's Run Road. The site is the largest unprotected green space within the city with mature walnut and cherry trees and six streams. PDG's stated goal was to build a race track, hotel and garner a slots license after mining the site.

In December 2006, the DEP denied the surface mining permit due to "significant adverse impacts...(to) water quality, wildlife, aquatic habitat and instream and downstream uses." PDG appealed this denial.

In 2009 the Environmental Hearing board rejected PDG's appeal and supported the DEP ruling to disallow surface mining. PDG appealed this denial to the Pennsylvania's Commonwealth Court, until March 2010, when they withdrew the appeal following their agreement with Duquesne Light. 🚲

## Marcellus Shale continued from page 5

associated with serious health problems. Of those chemicals 94% are associated with skin, eye and respiratory harm, 93% with harm to the gastrointestinal system, 87% with respiratory system damage, and 83% with brain and nervous system effects.<sup>4</sup>

Examples of a few chemicals from a listing posted by the PA DEP include hydrochloric acid, methanol, and ethylene glycol<sup>5</sup>—all of which are listed in the Clean Air Act Amendments of 1990 List of Hazardous Air Pollutants. Petroleum distillate blend may also be used. Airborne transport is the primary pathway of concern for fracturing chemicals release.<sup>6</sup>

**Water Consumption and Pollution:** Over *one million gallons* of water are used per hydraulic fracturing procedure, and wells can be fractured many times. Some of this water may stay below ground along with the fracturing chemicals and some may resurface along with released native shale substances which may contribute additional toxics such as cadmium and benzene. This overflow drilling liquid has a high level of total dissolved solids (TDS). The overflow water may sit in lined pits while waiting to be trucked to a treatment center, allowing volatilization of some of the chemicals. In some cases, the fluid is put into holding tanks, which is preferable. Treatment has been taking place at municipal sewage treatment centers or industrial treatment centers, but federal guidelines argue against this practice because the drilling wastewater may damage the treatment center and taint drinking water supplies. EPA notes, “The plants aren’t equipped to remove TDS or any of the chemicals the [fluid] may contain.”<sup>7</sup>

Drilling wastewater can be five times as salty as sea water. Along the Monongahela River last summer, machinery at a steel mill and power plant began corroding. Residents noted washing machine malfunctions and dishes with unusual spots that were hard to remove. These problems were traced to the high TDS levels in the river. TDS can come from mining activity and other sources in addition to drilling wastewater. The DEP acted by reducing the allowable amount of drilling wastewater being discharged into the river and opened dams upstream to flush out the contamination.<sup>8</sup>

A water system on a local river<sup>9</sup> reported exceedences of the maximum contaminant levels for total trihalomethanes (THM) to their customers in 2009. THMs are considered carcinogenic with long-term exposure. High TDS and bromine levels in source water can contribute to elevated THM at water treatment systems. In 2008 DEP, EPA and ACHD conducted a study of elevated TDS and bromine in area rivers. Although the study did not directly link the high TDS and bromine levels in the rivers to drilling wastewater, it is considered a likely contributor to the problem.<sup>10</sup>

Other concerns include escaping methane gas that can and has contaminated well water, even causing nearby potable

water wells to explode. Compressors, valves and piping used in the extraction process sometimes leak. In areas of Texas that have already been heavily drilled for gas, residents have complained of illnesses they associate with nearby drilling activities. A study by the Texas Commission on Environmental Quality found “elevated levels” of benzene in 21 of 94 rural drilling sites. Excessive diesel emissions from truck traffic and on-site equipment adds to the air pollution. Radioactive minerals and gases have been found at high levels in some areas, especially in the outflow brine that has been soaking in the shale for centuries.

Some good news, however, is that government regulators—both the EPA and state agencies—are finally moving toward better regulating the “gas rush.” By January 2011, all facilities in PA accepting high-TDS wastewater for treatment must meet new discharge limits. At least twelve new water treatment facilities in PA able to accept drilling wastewater are in the permitting process and 68 new inspectors and permit reviewers have been hired. The PA DEP is seeing increased recycling of wastewater at the drilling sites and is working to improve well construction requirements. The EPA recently announced it will conduct a comprehensive study of the hydraulic fracturing process and its effects on water quality and public health.

The “gas rush” is on. If coal mining is an example, our nation does not have a good track record of protecting the environment or the public from harm caused by extractive industries. Much more needs to be done. The federal, state and industry management of this new windfall needs to get out in front of problems quickly. It’s a big job with very high stakes.

1. Gas Drilling Going Deep, the Philadelphia Inquirer, Business Section, Andrew Maykuth, Mar. 14, 2010

2. The Endocrine Disruption Exchange, Chemicals in Natural Gas Operations, Introduction, <http://www.endocrinedisruption.com/chemicals/introduction.php>

3. CAS numbers are used to identify a specific chemical. A single chemical can have many different names, but only one CAS number

4. The Endocrine Disruption Exchange, Products and Chemicals Used in Fracturing, 2/2009, p.4 <http://www.endocrinedisruption.com/files/Product-sandChemicalsUsedinFracturing2-16-09.pdf>

5. List of possible fracking chemicals in Pennsylvania at Department of Environmental Protection site: <http://www.dep.state.pa.us/dep/deputate/minres/oilgas/FractListing.pdf>

6. Ibid, #4, p.4

7. With Natural Gas Drilling Boom, Pennsylvania Faces an Onslaught of Wastewater, ProPublica, written by Joaquin Sapien- 3 October, 2009, <http://www.propublica.org/feature/wastewater-from-gas-drilling-boom-may-threaten-monongahela-river>

8. Ibid

9. Marcellus-shale.us, contains letter from Tri County Municipal Water Authority warning of Total Trihalomethanes above Drinking Water Standards, <http://www.marcellus-shale.us/water.htm>

10. Trihalomethane Speciation And The Relationship To Elevated Total Dissolved Solid Concentrations Affecting Drinking Water Quality At Systems Utilizing The Monongahela River As A Primary Source During The 3rd And 4th Quarters Of 2008, Paul Handke Water Program Specialist Pennsylvania Department of Environmental Protection



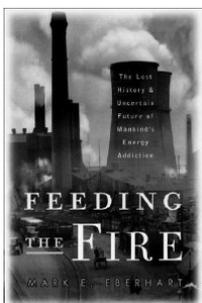
# Greening Your Bookshelf

by Jamin Bogi, GASP Board Member

In this and future columns I will summarize books that discuss themes of interest to GASP members. GASP members' concerns range far beyond particulate matter and fly ash, and 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.

*Feeding the Fire: The Lost History and Uncertain Future of Mankind's Energy Addiction*, by Mark E. Eberhart. Harmony Books, 2007. 262 pages.

*The Long Emergency: Surviving the End of Oil, Climate Change, and Other Converging Catastrophes of the Twenty-First Century*, by James Howard Kunstler. Grove Press, 2005 (2006 edition). 324 pages.

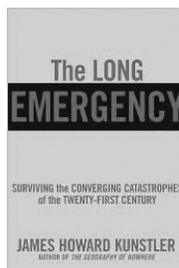


“Finding and exploiting energy is the human story,” begins Eberhart, casting his imagination back—from the first fires used to cook meat to our current situation of billions of barrels of oil pumped daily. He provides a detailed yet comprehensible guide to the chemistry of our fuel sources and the checkered history of human use of these fuels.

The author describes how the Mayans likely did themselves in by using up their fuel source, trees. London used wood to make charcoal to make their iron and steel. The soaring cost of wood and charcoal led Englanders to use an “alternative” fuel--coal. Smelly, smoky coal had been used here and there for centuries but was comparatively odious. However, it was cheaper than wood and by the 1600s it was being burned in homes, though it produced “catarrhs, phthisics, coughs and consumption” or as we might say, inflammation, asthma, and tuberculosis.

Eberhart continues through history from coal to coke, to sperm whale nose oil (all the rage in the 1850s!), to kerosene from coal and then oil, and finally gasoline. This takes us to the present, where the demand for oil in the U.S. means we have to enter into all kinds of foreign affairs to keep the modern project humming, at extreme costs of blood and treasure.

Enriching as his history is, he provides solutions to our oil dependency that could be summarized in but a few sentences. He envisions an energy-industrial complex like the military-industrial complex, that operates with long-term strategies and in which profit isn't the primary concern. He would drop internal combustion engines for electric ones, to be powered by clean, U.S. electricity, produced by, among other things, nuclear energy.



Eberhart's is a happy, hopeful ending, the kind that makes James Howard Kunstler ill. Kunstler argues that the view that technology or market factors will always save us is not tenable, stating “It is possible that the fossil fuel efflorescence was a one-shot deal for the human race.” His near future involves the break-up of the U.S., global wars, food scarcity, shortened life spans, and massive reorganization of society as we know it. Causing it all is the end of cheap oil, upon which modern society is based.

Whereas Eberhart sees energy bounty leading to cultural flourishing, Kunstler stares at the end of a process that has led to the burn-through of most of the available fossil fuels. If you're not upset yet it's my fault, because the book is bleak and bleaker. The alternative energy “solution” isn't coming, and he spells out why in detail. U.S. natural gas production peaked in 1973, and has been declining since. Burning hydrogen is not feasible by any current means. Coal isn't as flexible as oil or gas. Hydroelectric sites silt up, and the Department of Energy estimates that if we exploit all potential sites they have on record, we would increase our energy generation by only 5%. Creating solar energy with PV panels is difficult when there's no power to mine the silicon, no gas to transport it, and no power to run the plant to make it. He continues to break down faith in biomass, nuclear, synthetic oil from coal, and any other energy source you can imagine, except geothermal, which is strangely missing from both reviewed books. Nuclear and coal will continue to be used for a while, in Kunstler's view, but both systems run on fossil fuel and won't last for more than a few decades.

The thrust is that we can improve efficiencies and technologies, but the entire system is based on cheap, constant oil which won't last much longer. The scenario ends with the death of globalism and a return to “intensely local” living. Kunstler's vision of the future is one of small towns on rivers, surrounded by farmlands. Big cities will be dead zones, as buildings more than several stories tall will be impossible to power and maintain. Any complex system (like the federal government) won't function. We might use railways to get around, if we expend the energy now to get the infrastructure up to snuff, but likely we won't. Waterways will be heavily used, and towns along rivers might fare better. Massive numbers of people will die until the Earth returns to a population level that can be sustained without fossil fuel gluttony.

While some of his forecasting will be off, hopefully by many years, other claims have already come true. He envisioned the housing collapse perfectly. He maintains a website and regularly updates his views and predictions. 

# My Time Interning at GASP

by Lindsey Blotzer

For the past year and a half I have served GASP as an intern and volunteer. I discovered the organization through a simple internet search and was immediately drawn to get involved when I discovered the projects that GASP was involved in. As a student of Environmental Studies at the University of Pittsburgh, I learned about earth processes, performed paleoclimate research, and became aware of the economics behind political decisions related to environmental issues; however, I wanted to learn how a grassroots non-profit group functions.

The first time I walked into the office, Lee greeted me with a warm smile and introduced me to Rachel, Joe, and Sue. Everyone was very friendly, surrounded by piles of papers, typing at their computers, discussing projects on the phone, and running to the next meeting. Although to the untrained eye it might have looked cluttered and unorganized, I discovered that there was a method to the madness. A lot gets done at GASP to spread awareness around environmental issues, and there is a tremendous amount of energy focused on direct action toward improving the region's air quality.

I wore a variety of hats at GASP over the year and a half that I served the organization. I came into the office once a week to do anything I could to help: addressing large mailings to members; sending out letters to organizations and individuals asking for donations to make events like the 40th Anniversary Celebration successful; taking photos at the Healthy School Bus Press Conference; and creating a pamphlet covering the connection between diesel exhaust and children's health. When the pamphlets that I created are handed out at events, I feel as though I am communicating with the public and starting important conversations concerning air quality. Recently, I finished creating a portfolio called "GASP in Action," highlighting the organization in the news over the past 5 years. Feeling the heft of the completed

portfolio, I understand even better how much gets done in the GASP office.

As a full time student with a part-time job, it was sometimes difficult to make it into the office. But every time I did, I left with a sense of satisfaction that I didn't feel when I handed in a paper or finished an exam. My time at GASP was put towards public awareness of important environmental issues and helping to make the city breathe a bit easier.

Now, I have to say goodbye to the office, but not to Rachel, Lee, Bryan, Joe, and Sue and to the board members I have met through my time here--I will always remember their help in developing my understanding of the world, no matter where my travels take me.

Currently, I am moving to the North Rim of the Grand Canyon to hostess at the lodge's restaurant. I look forward to waking up every day to wide open skies, fresh air, and outdoor adventure. Looking farther ahead, I hope to work with a Conservation Corps rebuilding trails. Eventually, I will work towards a Master's Degree in Sustainable Development and embroil myself in the environmental movement. In order for the environmental movement to be successful, groups like GASP that change public awareness and bring people together must continue, and I hope to embody these goals every day.

*The GASP staff and board thank Lindsey for her valuable work on behalf of GASP and we wish her the best as she continues her environmental journey.*



## Kudos to Two GASP Advisory Board Members



CIT Dean Pradeep Khosla (center) presents the shared award to Allen and Neil at the annual faculty awards ceremony in March

Two members of GASP's Advisory Board recently received Carnegie Mellon University's Outstanding Research Award, made to a faculty member or team within the Carnegie Institute of Technology (CIT, the CMU engineering college) in recognition of an exceptional research contribution that has enhanced the reputation of CIT in a global or national context. This year it was awarded to Professors Neil M. Donahue (Chemical Engineering, Chemistry, and Engineering & Public Policy) and Allen L. Robinson (Mechanical Engineering and Engineering & Public Policy), for "path-breaking development of measurement and simulation techniques for organic aerosol emissions from cars, trucks and other combustion systems. Their work has transformed how scientists, engineers, and policymakers view organic aerosol emissions and chemistry."



# Spotlight on a Board Member

Julie Burgo is one of GASP's newer members, having been elected to the board in 2009. She graduated from Bethany College with a degree in psychology and was certified in elementary education at Carlow University.

Like several other members, she initially became involved with GASP as a result of her personal experience with a serious air quality problem. As she recounts, she moved into her mother's East End home four years ago to care for her so her mom could remain in her own home, near her physicians and hospitals, while undergoing chemotherapy. Her mother also suffered from breathing problems and was dependent on supplemental oxygen. Nearby neighbors frequently burned wood in their fireplace and the smoke from this permeated the home. Despite sealing up the home's windows and doors and using air filters, the smoke exacerbated her mother's condition. Julie feels the smoke pollution had negative health impacts on the rest of the family as well, leading to her current asthma.

Julie and her husband approached the neighbors about the situation, but they were unsympathetic. The Burgos contacted the Health Department, which conducted several field inspections and issued a verbal cease and desist order to the neighbors. Unfortunately, it wasn't upheld and the problem continued. That's when she decided to become involved: "I looked locally for additional help and found GASP. Members of GASP were very kind to me and their efforts to help began immediately and are ongoing. GASP board members, staff, and volunteers are extraordinary people, serious about the fight for clean air. I knew that I wanted to be a part of this team."

Julie's mom passed away in May 2009. The whole experience led Julie to think about the role of local sources of pollution and how they relate to our region's overall air quality. In her own words:

"Since joining GASP, I've learned a great deal about the air quality problems that our region faces. I would like to expand GASP's efforts for clean air by focusing not only on industrial smokestacks, but also on the residential smokestacks within our neighborhoods. The health hazards of second-hand tobacco smoke are well established and laws are in effect to protect the public. Nuisance laws controlling neighborhood disturbances such as loud music or a barking dog exist and are immediately enforceable. No such laws exist (in Pennsylvania) to protect the right to breathe clean air within our own home and property. I've discovered that the county health department receives hundreds of wood smoke complaints, but not much can be done about them. In other parts of the country, policies such as burn bans, more stringent burning regulations, and educational campaigns about the health effects of wood smoke exist."

Outside of GASP, Julie serves as the PA chair of Clean Air Revival, Inc., a nonprofit that pioneered the campaign against wood burning and has won several awards. She's also interested in the health and environmental effects of toxins in our everyday lives, such as those in some cleaning products, fragrances, food additives, etc., as well as in patient advocacy.



When she's not busy working on environmental issues, Julie enjoys spending time with her family and friends. She's an avid cook and her other interests include horseback riding and art. For folks wanting more in depth information on wood smoke, Julie recommends [www.burningissues.org](http://www.burningissues.org), which she considers to be the premier website for wood smoke information. 

 **Join GASP Today!**

\$40 Grassroots Supporters (\$15 low income/student rate)

\$60 Grassroots Contributors (includes recycled tote)

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\$250 Clean Air Defenders (includes recycled tote and umbrella)

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# Before You Flip That Switch *The Hidden Costs of Energy*

Thursday, May 13 at 6 PM

Imagine Environmental Charter School  
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*Donations accepted at the door*



Join us for a lecture and discussion led by **Dr. Jared Cohon**, President of Carnegie Mellon University and chair of the National Academy of Sciences Committee on Health, Environmental, and Other External Costs and benefits of Energy Production and Consumption.

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