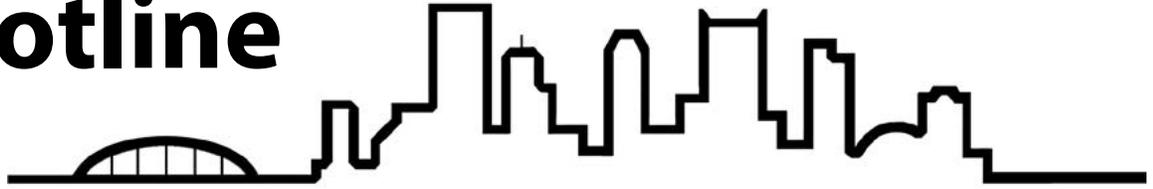




Group Against Smog and Pollution, Inc. Hotline



Fall 2016

www.gasp-pgh.org

In this issue

Major Sources of Air Pollution Without an Operating Permit	1
Will the City of Pittsburgh and Pgh Public Schools Enforce Cleaner Diesel Rules?	2
GASP in Action (Part 1)	3
To Burn or Not to Burn	6
GASP at the Aviary Event	8
Spotlight on a GASP Board Member	10
GASP in Action (Part 2)	10
Smell PGH	12

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.

Almost One-Third of Major Sources of Air Pollution in Southwestern PA Do Not Have a Current Operating Permit

by John Baillie, GASP Staff Attorney

In August 2015 and May 2016, the Allegheny County Controller's office reported on the Allegheny County Health Department's ("ACHD") compliance with regulations governing the timely issuance and renewal of operating permits for sources of air pollution in Allegheny County. The 2015 report discussed five major sources in the county that had never been issued operating permits. The 2016 report highlighted a backlog of applications for renewals of expired operating permits for major and other sources.

GASP routinely collects and reviews operating permits for major sources in Allegheny County and surrounding areas, so we checked whether ACHD had made progress in issuing and renewing permits to the sources identified in the Controller's reports. For purposes of air quality permitting, major sources in most of the counties surrounding Allegheny County are under the jurisdiction of the Pennsylvania Department of Environmental Protection's ("DEP") Southwest Regional Office, so we also looked at whether applications to issue and renew operating permits for major sources in those areas were similarly backlogged. This post compares how ACHD and the DEP's Southwest Regional Office are performing their permitting functions with respect to major sources of air pollution.

But first, some background on the legal requirements that apply to the agencies.

Major sources of air pollution are required to obtain operating permits from state or local permitting programs. Because these programs must comply with requirements that are imposed by Title V of the Clean Air Act, the operating permits that they issue to major sources are often called "Title V Operating Permits." The Clean Air Act requires that state and local Title V permitting programs be self-financed, meaning a program must impose fees on the Title V sources under its jurisdiction that are sufficient to fund its operations.

A major source's Title V Operating Permit must include all applicable federal, state, and local air pollution law requirements. The Title V operating permit requirement improves major sources' compliance with air pollution laws by eliminating confusion regarding which requirements apply to any particular source and by mandating that operators of such sources monitor and report their compliance with all such requirements. Although sources are required to comply with new applicable regulations that become effective after their Title V Operating Permits are issued, a source might avoid reporting on its compliance with such regulations until its permit is revised to include them. Accordingly, it is important for permitting programs to process renewal applications efficiently and keep permits up to date.

Under ACHD and DEP regulations, an operating permit generally is valid for five

continued on page 4

Will the City of Pittsburgh and Pittsburgh Public Schools Enforce Cleaner Diesel Rules?

by Rachel Filippini, GASP Executive Director

Will new legislation and contracts requiring the use of less polluting school buses and construction equipment help clean up Pittsburgh's air?

Only time will tell. Even the best, most stringent regulation, contract, or policy is just a piece of paper if no one is taking the time to implement and enforce it.

In the past six months the City of Pittsburgh and Pittsburgh Public Schools have passed legislation and contract language, respectively, which aim to minimize diesel emissions by requiring the use of cleaner equipment or vehicles. While this is positive news, both entities have previously enacted legislation or contracts which haven't been enforced, so we need to be sure this time they are actually taken seriously and implemented.

What's the history?

In 2011 Pittsburgh City Council passed the Clean Air Act, aka clean construction legislation, requiring city and city-subsidized construction projects over \$2.5 million to require the use of some percentage of cleaner construction equipment. The legislation had the best intentions but as written was difficult for the city to enforce and for contractors to understand what was expected of them. This past summer, revised legislation was introduced and passed by City Council. The new legislation, known as Clean Construction Diesel Operations, is more straightforward, hopefully making it easier for all parties to understand and comply with. The law officially went into effect on October 1, 2016. We are waiting to learn from the City's Department of Public Works which upcoming project will be the first to include clean construction requirements. If you are interested in the text of the legislation it can be found here: <http://bit.ly/2eavB2G>

ly/2eavB2G

In the meantime, GASP is working to get the various authorities, such as the Urban Redevelopment Authority, Allegheny County Sanitary Authority (ALCOSAN), and the Pittsburgh Water and Sewer Authority to enact their own clean construction policies. And we continue to encourage local institutions to follow Chatham University and UP-PMC's lead in voluntarily passing their own clean construction policies.

What about school buses?

In June, Pittsburgh Public Schools entered into new contracts with the school bus carriers they use. The contracts included language where the carrier agrees to only use buses that are 2007 or newer, or if older they must be equipped with diesel particulate filters and closed crankcase ventilation systems. In combination, these devices greatly reduce diesel particulate emissions, thus decreasing student and driver exposure to diesel pollution. Great news, right? Yes, except the district actually had similar language in place in previous agreements. Some school bus companies hadn't been providing newer or retrofit buses as promised and the school district wasn't enforcing the contract. How can we trust the situation will improve this time around? Right now, we are ascertaining how many new or retrofit school buses are serving Pittsburgh, and we are encouraging fleet owners to take advantage of competitive funding programs to clean up their buses if they still need to.

More updates to come as we continue to follow these two efforts intended to minimize diesel emissions in the city. 🚲

GASP in Action (Part 1)

Conference Panelists

GASP's Executive Director, Rachel Filippini, and two of GASP's board members, Jim Fabisiak, PhD and Harold Rickenbacker spoke at the Creating Healthy Communities Conference on October 6, 2016 at the David L. Lawrence Convention Center. Rachel represented GASP in the "Air Quality in Southwestern PA" session. Jim represented the University of Pittsburgh Graduate School of Public Health and Harold represented the Cancer Free Economy Network and both spoke in the "Unintended Consequences of Progress" session.



Photos by Maren Cooke

School Flag Program

GASP's Education Coordinator, Jessica, re-launched the School Flag Program at the Environmental Charter School this year.

Students: Looking to increase air pollution awareness at your school, or spark sustainability efforts?

Parents: Want your children to know more about air pollution, how they can protect themselves from it, and how they can reduce it?

Teachers: Need a hands-on activity and air quality content?

Then participate in the **EPA School Flag Program!** This program uses colored flags that correspond with the Air Quality Index to inform students, teachers, and communities about air quality conditions.

More info: www.gasp-pgh.org/projects/epa-flags or contact Jessica at schoolflag@gasp-pgh.org or at 412-924-0604 x207



Photo by Joe Burke, Environmental Charter School

The **Hotline** is the semiannual newsletter of the Group Against Smog and Pollution.

GASP
1133 S. Braddock Ave., Suite 1A
Pittsburgh, PA 15218

(412) 924-0604

www.gasp-pgh.org
info@gasp-pgh.org

Twitter/Facebook: GASPpgh



Printed on 100% post-consumer recycled, processed chlorine-free paper at Forward Lithography, 4065 Irvine St., Pittsburgh, PA.

GASP Mission Statement

The Group Against Smog and Pollution works to improve air quality to ensure human, environmental, and economic health.

Methods of Achieving Mission

GASP is a citizens' group based in Southwestern PA which focuses on environmental issues in the surrounding region. 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.

Major Sources Without Permits
continued from page 1

years from the date it is issued. Between eighteen and six months before an operating permit expires, the source's owner or operator must submit an application for a renewal operating permit to ACHD or DEP if the source is to be authorized to continue operations after the expiration of its current operating permit. The regulations require that the agencies act on an application for a renewal permit within eighteen months of the submission of a complete application.

Here's what we found.

First, the 2015 Allegheny County Controller's report noted that there were five major sources in Allegheny County that had never been issued Title V Operating Permits, despite the sources having submitted applications in the 1990s. Since August 2015, ACHD has issued Title V Operating Permits to three of those sources and has indicated to GASP that they plan to issue a Title V Operating Permit to another of the sources by the end of September. The last of the five sources operates subject to a federal court order that, at least for the time being, effectively precludes ACHD from issuing a Title V Operating Permit.

By way of comparison, there are no major sources of air pollution subject to the jurisdiction of DEP's Southwest Region that have never been issued a Title V Operating Permit.

Second, we also looked at the agencies' backlogs of applications for renewal permits. We obtained copies of Title V Operating Permits and renewal applications for major sources by making requests under Pennsylvania's Right to Know Law. We learned that nine major sources (out of 27

Facility	Location	Renewal Application Submitted	Last Permit Expired
Buckeye Pipe Line	Moon Township	8/8/2007	2/10/2008
Coraopolis Terminal	Coraopolis	8/9/2007	2/10/2008
U.S. Steel Irvin Works	West Mifflin	7/31/2009	2/17/2010
Bay Valley Foods	Pittsburgh	12/7/2009; 10/6/2015	6/13/2010
Universal Stainless and Alloy Products	Bridgeville	6/16/2010	12/19/2010
Pittsburgh Allegheny Thermal	Pittsburgh	3/17/2014	9/13/2014
NRG Energy Center Pittsburgh	Pittsburgh	5/16/2014	11/18/2014
PPG Industries Springdale	Springdale	9/4/2014	5/18/2015
Allegheny Energy	Springdale	6/11/2009; 5/29/2014	12/15/2015

Table 1

total, or 33%) in Allegheny County have pending applications to renew their Title V Operating Permits that ACHD has failed to act on within 18 months as its regulations require. Further, five of those nine permits have been expired for more than five years, including two permits that expired in 2008, as shown in Table 1.

These nine sites with backlogged renewal permit applications create a significant amount of pollution. In the aggregate, the sites' emissions of the five pollutants for which emissions inventory data was available from ACHD for 2015, namely nitrogen oxide ("NOx"), sulfur oxide ("SOx"), volatile organic chemicals ("VOCs"), particulate matter ("PM10"), and fine particulate matter ("PM2.5"), exceeded 1,500 tons in 2015. One of the sites, U.S. Steel's Irvin Works, had over 927 tons of emissions in 2015, making it the fourth largest stationary source of air pollution in Allegheny County.

By way of comparison, DEP Southwest Regional Office has 74 major sources under its jurisdiction. DEP has failed to act on pending renewal applications for at least 21 of those sources (or 28%) within 18 months of submission of a complete renewal application as its regulations require. Ten of those 21 permits have been expired for more than five years, including most notably one permit that expired in 2004 (Table 2, page 5).

The chart in Table 3 compares the number of sites under the respective jurisdictions

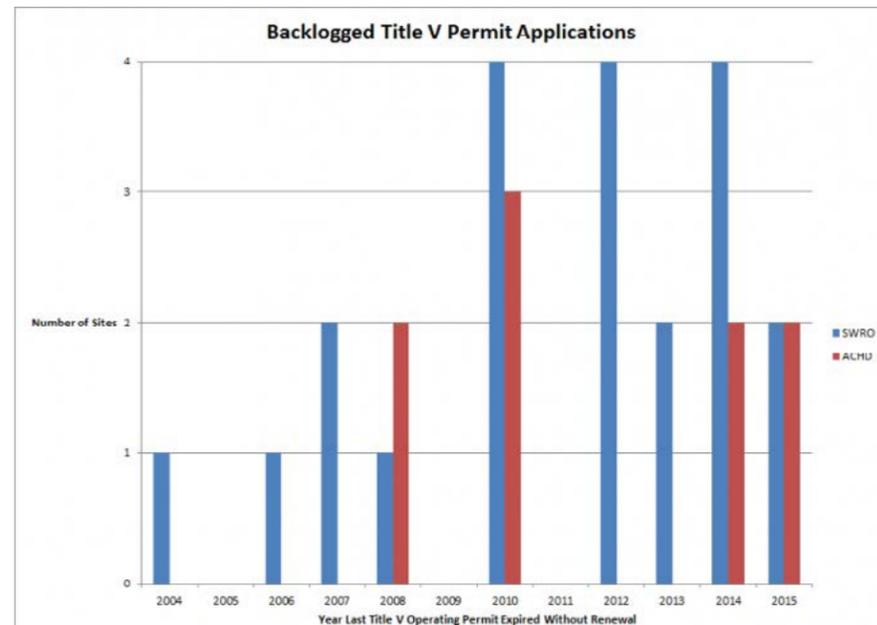


Table 3

of ACHD and the Southwest Regional Office with expired Title V Operating Permits, organized by the year in which each site's last permit expired without being renewed.

And while the stale permits sit, emissions could be increasing. The Environmental Integrity Project, working with GASP, analyzed emissions data for these sources and found that some facilities with expired Title V permits reported significantly higher emissions of regulated toxic pollutants than they did five years ago to EPA's Toxic Release Inventory ("TRI") database.

One of these facilities, Ranbar Electrical Materials in Harrison City, nearly doubled its amount of air toxics reported to the TRI database since its last Title V expired in 2010, with the pollutants reported in the highest amounts in 2015 being xylene, methyl isobutyl ketone, and ethyl benzene, a possible human carcinogen.

It is unacceptable that the agencies responsible for permitting major sources of air pollution in our area have allowed the operating permits for one-third of such sources to expire without acting on their pending renewal applications in a timely manner, especially in light of the requirement that major source permitting programs are to be self-financed. Both ACHD and DEP need to take immediate steps—including raising the fees that they impose on Title V sources if necessary—to eliminate their backlogs of applications for Title V Operating Permit renewals and prevent such backlogs from recurring.

Facility	Location	Renewal Application Submitted	Last Permit Expired
Dominion Transmission Oakford Compressor Station	Salem Township, Westmoreland County	8/29/2003; 6/2/2014	3/1/2004
Consolidated Coal Bailey Prep. Plant	Richhill Township, Greene County	5/25/2006; 1/29/2014	11/28/2006
Flexsys Monongahela Plant	Carroll Township, Washington County	7/3/2006; 9/25/2012	1/3/2007
Ebensburg Power	Cambria Township, Cambria County	8/17/2006	2/19/2007
Allegheny Valley Connector LLC Laurel Ridge Station	Jackson Township, Cambria County	5/11/2007; 1/2/2014	1/14/2008
U.S. Gypsum	Aliquippa, Beaver County	7/27/2009	1/27/2010
Allegheny Energy Gans Power Station	Springhill Township, Fayette County	7/20/2009	1/27/2010
Ranbar Electrical Materials	Penn Township, Westmoreland County	11/15/2009	5/17/2010
Dominion Transmission Beaver Compressor Station	North Sewickley Township, Beaver County	3/18/2010	10/25/2010
Johnstown Specialty Castings	Johnstown, Cambria County	10/26/2011	5/30/2012
Texas Eastern Armagh Compressor Station	West Wheatfield Township, Indiana County	6/28/2012	7/31/2012
Texas Eastern Lilly Compressor Station	Cresson Township, Cambria County	3/22/2012	10/10/2012
Dominion Transmission South Oakford Compressor Station	Hempfield Township, Westmoreland County	1/11/2012	10/31/2012
Dyno Nobel	Donora, Washington County	5/15/2012	1/1/2013
Texas Eastern Delmont Compressor Station	Salem Township, Westmoreland County	9/17/2012	4/29/2013
Shade Landfill	Shade Township, Somerset County	1/10/2014	8/31/2014
Armstrong Power	South Bend Township, Armstrong County	3/19/2014; 2/26/2015	9/9/2014
Greenridge Reclamation Landfill	East Huntingdon Township, Westmoreland County	4/30/2014	10/30/2014
Dominion Transmission J.B. Tonkin Compressor Station	Murrysville, Westmoreland County	5/14/2014	11/24/2014
USA Valley Landfill	Penn Township, Westmoreland County	12/4/2014	6/18/2015
Summerill Tube	Scottdale, Westmoreland County	1/16/2015	7/20/2015

Table 2

To Burn or Not to Burn

by Sue Seppi, GASP Project Manager

It's autumn... filled with falling leaves, ripe apples, a crackling wood fire to gather around. All sounds good and familiar, but one part of this pleasant picture is not so healthy. Whether in a fireplace or an outdoor burn pit, a wood fire is still a combustion process that produces many small particles and toxic gases.

Perhaps because wood fires have been with us since antiquity, they are often regarded as benign. Even today, a fireplace or a fire pit seems a desirable amenity for a new home purchase. The neighborhood grocery store is selling packages of wood. Indoor wood stoves and outdoor chimineas are popular. Wood is, after all, natural. Could those cheery wood fires really be something to avoid? Let's dig a little deeper.

What is in wood smoke?

- Wood smoke particles are mostly very small, ranging from 0.2 microns at the start of the burn period to .05 microns as the burn cycle progresses.¹ Particles below 0.1 microns (ultrafine particles) are more likely than larger particles to be inhaled deeply into the lungs and may even pass into the blood stream. Numerous studies have associated small particle pollution with adverse health effects.



- Wood smoke contains a significant number of air toxics, including benzene (a known human carcinogen), formaldehyde (probable human carcinogen), acrolein (eye, nasal and respiratory irritant at low exposure levels) and polycyclic aromatic hydrocarbons (PAHs), a class of over one hundred chemical compounds. Some PAHs are linked to cardiovascular disease, developmental impacts, and cancer.
- “We know there’s a lot of bad stuff released when wood is burned,” said Dr. John Balmes, Professor of Medicine at the University of California, San Francisco, and professor of environmental science at the University of California, Berkeley School of Public Health. “It’s actually not that far away from tobacco smoke and smoke from fossil fuel combustion engines. They’re in the same ball park.”²

What are the health effects?

- “Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis and may also increase susceptibility to respiratory infections.”³
- “Long-term exposures (months or years) have been associated with problems such as reduced lung function and the development of chronic bronchitis—and even premature death.”⁴
- People with existing heart conditions such as angina or pulmonary conditions such as emphysema may experience health effects at lower smoke levels than healthy people. Children are also more prone to health effects from wood smoke as they breathe more air per pound of body weight than adults.

Wood burning in the neighborhood

- Wood smoke is usually released at or near breathing level in the neighborhood where most of us spend significant time, especially young children.
- The majority of wood smoke particles are so small (ultrafine) that “there is no practical way to prevent wood smoke pollution from seeping into nearby homes.”⁵ “A study by the University of Washington showed that 50 to 70 percent of the outdoor levels of wood smoke were found in nearby homes that were not burning wood. EPA did a similar study in Boise, Idaho, with similar results.”⁶

Smoky fire? Nuisance burning?

The Allegheny County Health Department has a 24-Hour Complaint phone line at 412-687-2243 and online at <http://www.achd.net> (click on “report an air quality complaint”)

The healthiest wood fire--indoors or outdoors--is no fire at all!

- Allegheny County often has a significant number of air inversion periods, often at night just when wood burning is prevalent. Inversions can block mixing of smoky ground level air into the upper air layers, thereby magnifying the pollution in the air layer we breathe.

What are the regulations around wood burning?

Allegheny County

Outdoor Wood Burning:

- Only clean, dry wood may be burned.
- Fires may be no larger than 3’ wide by 3’ long by 2’ high.
- Fires must be at least 15 feet from the nearest neighbor’s dwelling or inhabited area, including: property line, roadway, sidewalk, public access area.
- Wood burning activities shall not be conducted on Air Quality Action Days.
- Burning may be prohibited or reduced if it is considered a nuisance. A \$250 fine may be issued for noncompliance of the first offense.
- See Open Burning Regulations at <http://www.achd.net/air/index.php> for complete details.

Outdoor Wood Fired Boiler (OWB):

Allegheny County has more stringent requirements than the Pennsylvania Department of Environmental Protection for OWB. See <http://www.achd.net/air/burning/outdoorwfboilers.html>

EPA Residential Wood Heater Rules

The EPA has issued 2015 New Source Performance Standard requirements for the manufacture of many new wood burning appliances. See <https://www.epa.gov/burnwise> for extensive information and links.

1. Brian Moinch, Tim Wagner, Cris Cowley, Howie Garber, Rich Kanner, Ellie Brownstein, Todd Seymour, Michael Woodruff, Utah Physicians for a Healthy Environment 2015 Report on the Health Consequences of Wood Smoke, <http://uphe.org/wp-content/uploads/2015/07/UPHE-wood-smoke-report-2015-pdf.pdf> (accessed 9/29/2016)
2. Cheryl Katz, Smoke from wood fireplaces, stoves raises new health concerns, 3/14/2011, Environmental Health News, <http://www.environmentalhealthnews.org/ehs/news/hazards-of-wood-smoke> (accessed 10/4/2016)
3. Environmental Protection Agency, Wood smoke and Your Health, updated 9/2016, Burn Wise, <https://www.epa.gov/burnwise/wood-smoke-and-your-health> (accessed 9/30/2016)
4. Ibid
5. Utah Physicians for a Healthy Environment, Wood Burning DAQ Presentation, <http://uphe.org/priority-issues/wood-burning/wood-burning-daq-presentation/>
6. Ibid



GASP is Seeking Interns

GASP works with interns throughout the year, both as needed for special projects/events, and based on student interest and needs. To request an internship, please email info@gasp-pgh.org with your resume.

Clean Air is for the Birds...and People too!

This year GASP celebrated our longstanding air quality work at the National Aviary on September 30, 2016. Members, family, and friends gathered to honor Walter Goldberg, clean air advocate and board member, to enjoy the National Aviary, and to learn more about birds and air pollution from bird blogger, Kate St. John. We'd like to thank all who attended, volunteered at, and sponsored the event!



Above and at left: Guests enjoyed close-up encounters with a penguin and a bird of prey.



Above: The children's table featured bird-shaped cookie decorating and art projects.

At left: Kate St. John spoke about the effects of air quality on birds.

Photos by Maren Cooke and Roger Day



Above: Don Hopey, Environment Reporter at the Pittsburgh Post-Gazette, presented a Lifetime Achievement Award to Walter Goldberg (at right and below), long-time GASP board member and guest of honor at the event.



Thanks to our Event Sponsors!

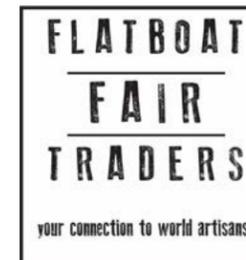
North Wind



Jet Stream



Pure Air Blast



Clean Breeze



Healthy Air Fan



- Aveda
- Big Burrito Restaurant Group
- BYS Yoga
- Carnegie Science Center
- Children's Museum of Pittsburgh
- Chipotle Mexican Grille, Inc
- Color Me Mine
- Costco
- Disney World
- Fun Fore All

- Giant Eagle
- Massage Envy
- Mattress Factory
- Meadowcroft Rockshelter and Historic Village
- National Aviary
- Oriental Trading Company
- Page Dairy Mart
- Pat Catan's
- Phipps Conservatory & Botanical Garden

- Pittsburgh Pirates
- Pittsburgh Playhouse
- Pittsburgh Steelers
- Pittsburgh Zoo and PPG Aquarium
- Territorial Seed Company
- The Andy Warhol Museum
- Three Rivers Paintball & Airsoft Park
- Trader Joes

Spotlight on a GASP Board Member

Michelle Fanzo is one of GASP's newest board members. We have up-in-the-air events to thank for her joining. In her own words:

"I joined GASP because I've worked on environmental issues at a national or global level while working for the UN, often around engaging people to better understand the true costs of environmental degradation. Being back in Pittsburgh I wanted to use my skills and experience locally, and I have a particular affinity with air, having spent a lot of time in the sky as a balloonist and skydiver."

"Another reason is I happened to sit next to board member Dave Eibling on a flight from Phoenix to Pittsburgh earlier this year, and he was so enthusiastic about GASP that I responded to his suggestion to being on the Board."

Michelle received a BA in Journalism from Hampshire College in Amherst, MA and an MA in International Affairs and Public Administration from the University of Pittsburgh. Her first career was as a journalist, which she did for ten years, much of it in Pittsburgh in the 1990s.

After receiving her graduate degree, Michelle began an almost two-decade career at the United Nations, working on international development, humanitarian, and peace and security issues in the Office of the Secretary-General under Kofi Annan, UN Peacekeeping Operations, and the UN Development Programme in Myanmar, among other UN agencies. She also directed a women's empowerment/ economic development non-profit in Afghanistan, where the air quality is "terrible." She noted that most everyone there had respiratory problems, leading her to start paying more attention to poor air quality and its negative health effects.

Michelle was a Robert Bosch Fellow in Germany, entailing a year-long leadership development opportunity to work in Germany and strengthen ties between the two Germanys. This was a "life changing experience" for her and she worked in Berlin on immigration affairs and urban issues at a time when they were "...knitting the East and West parts of the city back together physically, psychologically, and culturally."

Life has come full circle for Michelle since she moved back to Pittsburgh and she's eager to offer some of the best practices she learned elsewhere to support local groups. In 2009 she founded *4 Corners Consulting*, assisting local groups and firms as well as institutions looking to engage internationally. Twenty years ago Michelle founded PUMP (Pittsburgh Urban Magnet Project) and recently had the pleasure of attending the organization's 20th anniversary party. She was moved by seeing two decades of accomplishments and meeting so many dedicated, dynamic people who took an idea and ran with it.



Outside of work, Michelle enjoys being, well, outside – hiking, kayaking, biking and “breathing as much fresh air as possible.” She says outdoor activities are “a fantastic counterpoint to staring at a computer screen, which I’ve done way too much.” She also likes cooking, listening to music (often loudly), and dancing. And she’s “always up for a road trip to someplace new.”

Michelle has practiced yoga for 18 years and became a yoga instructor 5 years ago. She also did a stint as a competitive skydiver on a 4-person team and served as the videographer (teams get scored via the video). She describes it as being, “A bit like synchronized swimming in the air, but you’re falling at 120 mph!”

Michelle has a lifelong passion for aviation and years ago learned to fly hot air balloons. She also took a few helicopter lessons, which were a big thrill for her. She says that there’s something about getting a bird’s eye view of the world that reminds one what unites us: “It’s both exhilarating to see how things connect, and humbling to feel the beauty and power of nature. It’s like an infinite piece of performance art that we get to live in. I feel we have a responsibility to be stewards of that amazing performance for others to experience.”



GASP in Action (Part 2)

GASP was a guest presenter in the hiking session of the Venture Outdoors’ “Pedal-Paddle-Peduto: Get Outside and Learn” series this fall. GASP Executive Director, Rachel Filippini, spoke about the link between air quality and lichens.



Photos by SLYNNLEE, courtesy of Venture Outdoors



Join GASP Today!

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

\$60 Grassroots Contributors

\$100 Grassroots Patrons

\$250 Clean Air Defenders

\$500 Clean Air Protectors

\$_____ Other

Call GASP at (412) 924-0604 to learn about automatic monthly giving, deducted directly from your checking account or charged to your credit card. An easy, hassle-free way to support GASP all year round!

Name _____

Address _____

City/State/Zip _____

Phone _____

E-mail _____

Check Visa Mastercard American Express

Card # _____

CCV code: _____ Exp. Date _____

Amount \$ _____

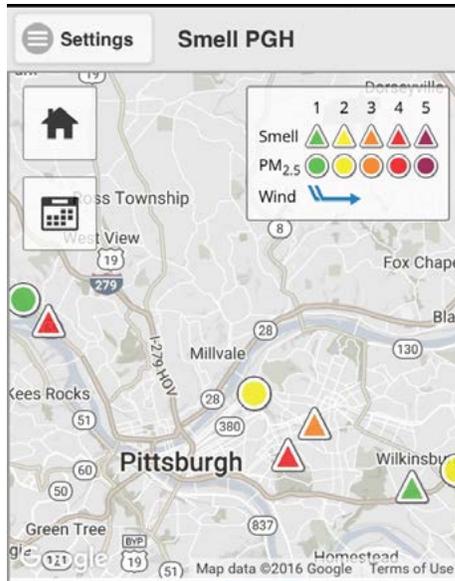
Signature _____

All contributions are tax-deductible to the extent allowed by law. Group Against Smog and Pollution, Inc. is a 501(c)(3) nonprofit organization. The official registration and financial information of GASP may be obtained from the Department of State by calling 1-800-732-0999. Registration does not imply endorsement.



Carnegie Mellon's CREATE Lab has launched a new app to help folks in Pittsburgh report bad odors. **Smell Pittsburgh** is a mobile phone app designed to **engage Pittsburgh residents in tracking pollution odors across our region**. The app also includes a map-view showing smell reports submitted in the area on a given date. This allows residents to track where odors are frequently concentrated, and link those smell events to poor air quality in, or upwind from, those areas.

Download the app and get more info here: http://www.cmucreatelab.org/projects/Smell_Pittsburgh



ELECTRONIC SERVICE REQUESTED

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PITTSBURGH, PA
PERMIT NO. 712

Group Against Smog and Pollution, Inc.
1133 S. Braddock Ave., Suite 1A
Pittsburgh, PA 15218

