

# LIGHTHAWK

## WAYPOINT

SUCCESS STORIES FROM ABOVE

June 2009, Issue 30

LightHawk's monthly update, WayPoint, was created to highlight the impact of our work. Each edition covers one specific flight, or series of flights, and illustrates how LightHawk advances conservation efforts throughout North and Central America through the unique perspective of flight. We hope you enjoy WayPoint and will share with others our success stories from above.

### LightHawk Flights Show Industrial Scars of Hydro-Fracking



©2009 J Henry Fair  
Multi-generational farms near Calicoon, NY. Every landowner in the region has been approached and offered lucrative gas leases. While many have organized in opposition to industrial gas development, some have chosen to lease their land resulting in acrimonious disputes within communities and within families like the owners of these farms. Photo: J Henry Fair/LightHawk



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Just across the border in Pennsylvania, a typical single pad gas development. The proximity of heavy industrial chemical use close to farms and to natural waterways is a primary concern and several instances of water contamination have been reported. Photo: J Henry Fair/LightHawk

*A new technology called hydraulic fracturing or "fracking" is bringing to the surface gas deposits that were previously too deep to reach in New York and Pennsylvania's Catskills. Thanks to an exemption from federal clean water regulations enacted by the previous administration, this largely unregulated industry has raised serious concerns about what it will leave behind. In the West, LightHawk has helped numerous groups monitor and document gas exploration. Now, in the East, LightHawk flights are helping to illuminate the industrial scars fracking leaves on rural landscapes and communities.*

Anyone who has flown with LightHawk volunteer pilot Bob Keller quickly understands that he is both meticulous and passionate about his flying. Whether it is serving on the board of a local land trust or his interest in migrating birds near his home in upstate New York, it is clear that the flights he donates are closely tied to his own deep commitment to the health and vitality of the environment.

This spring, Bob answered the call of Eastern Region Program Manager, Kelley Tucker, to provide a bird's eye view of active and proposed drill sites in New York's western Catskill Mountains. The Catskills and the Delaware River Valley are stunning, under-protected natural areas that support an amazing array of wildlife and working rural communities with many small farms. Including the adjacent lands in Pennsylvania, the region contains some of the larger unbroken forest blocks east of the Mississippi River and serves as an important corridor and buffer zone for wildlife. The small waterways of the region are also the source of the Delaware River – the longest un-dammed river in the eastern US – and of reservoirs that are the source of drinking water for 9 million households in New York City.

LightHawk partners Catskill Mountainkeeper, Columbia University and The Open Space Institute requested the flight, while renowned photographer J Henry Fair captured stunning images both bucolic and industrial – often in close proximity to one another. As Keller threaded his plane over family farms and active well pads, Fair's camera shutter clicked rapidly, taking in the scars of fracking and an odd



©2009 J Henry Fair  
The wet mud on the left side of this photo may indicate a violation at this site where the well is actively taking fracking fluid and remnants of the process are dumped into the slurry pit. The blue cargo containers are filled with fracking fluid and at certain points in the process, 50 or more may be sitting on one site. Photo: J Henry Fair/LightHawk



©2009 J Henry Fair  
Gas pads and staging areas proliferate, forming an all too familiar pattern on the northeastern Pennsylvania landscape. The Marcellus Shale runs along most of the Appalachian Ridge and industrial gas development is being proposed throughout. Photo: J Henry Fair/LightHawk



©2009 J Henry Fair  
Leased ground that, according to the Catskill Mountainkeeper, will be the first site of multiple industrial gas developments in New York State. Photo: J Henry Fair/LightHawk

patchwork of industrial activity and agriculture spread over the landscape. Fair's photographs from the flight will help Columbia University study the effects of gas drilling by understanding the footprint of these operations and extrapolating the short and long-term impacts of their activities. The photographs will also help educate the public that the real cost of the oil and gas we consume is not just the price shown at the pump or on the monthly bill; it also includes the hidden impacts on drinking water and communities like the ones described here. Following the initial flight, NBC's Today Show featured footage from the mission in a story about Fair's *Industrial Scars* photography project. (<http://industrialscars.com/>)

As Catskill Mountainkeeper Wes Gillingham put it following the flight, "In the East, most drilling will be taking place on private land and out of reach for the public to view. Having aerial shots to show both the cumulative and localized impacts will be a very powerful tool for education. This is the only industry that is able to have such profound impacts on the landscape without any regulatory oversight as to how it proceeds."

Large-scale fracking is a concern because it poses risks to ground and surface water quality. To extract the gas, at least one million gallons of pressurized water is blasted thousands of feet into the earth to fracture the shale and release trapped pockets of gas. The geological shale layer is pounded into rubble and a cocktail of toxic chemicals (including benzene) is mixed with sand into this pressurized water throughout the process - the precise mix has been exempted from the Community Right to Know Act.

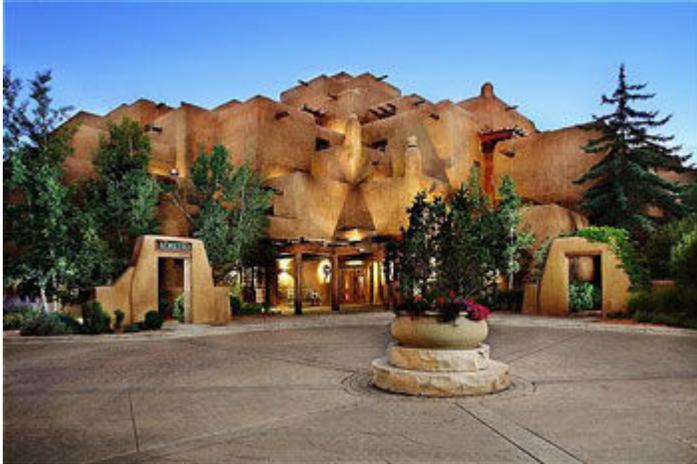
This slurry of chemicals has contaminated ground and drinking water in several communities nationwide and has raised concern for citizens and local governments. Additionally, the number of new roads required, increased heavy truck traffic, and the need to clear land for staging areas and pipelines threatens to dissect natural areas, impact air and water quality, and pose numerous other challenges.

Just this month (June 2009), a bill was introduced in Congress to remove the Bush-era exemption from regulation of the fracking process and would require disclosure of the chemicals used. As expected, the bill faces a tough battle from those who profit from fracking.

Few people dispute that gas will continue to be an important energy source worldwide, but environmentalists, scientists, farmers, land managers and community members in affected areas are fighting for greater awareness, federal oversight, caution in the use of hydraulic fracturing methods, especially their chemical components. LightHawk will continue to support their efforts.

*Without Lighthawk, the research team would not be able to comprehend the scale and magnitude of the problems that*

*persist. At ground level, one can be one hundred feet in distance from a well-pad site and not know the activities developing on the other side of the hill. - Richard Gonzalez, Urban Design Lab, Earth Institute at Columbia University*



### ***Celebrate 30 Years On the Wings of LightHawk***

Come join us where it all started 30 years ago and meet an adventurer who traveled the entire length of the Colorado River by kayak and local experts who will illuminate what's at stake in this part of the West and how LightHawk missions make a difference. You'll also hear stories about the early days of LightHawk and a plane named, "Emily," reconnect with fellow flyers and enjoy the beauty of Santa Fe, New Mexico a city celebrating its 400th anniversary.

**October 9-11, 2009. Santa Fe, New Mexico**

Join us at the renowned Inn and Spa at Loretto, our home base for the Fly-in.

~Call Bev at 207-699-4145 or email [bgabe@lighthawk.org](mailto:bgabe@lighthawk.org) to reserve your spot today.~

We'll be mailing invitations and details of our 30th Anniversary LightHawk Fly-In over the next few weeks, but we suggest you reserve your hotel space early. ([www.innatloretto.com](http://www.innatloretto.com))

### **About LightHawk**

What started in 1979 with one man and a vision has grown to almost 150 volunteer pilots flying missions across the U.S., into Canada, through Mexico and down to Panama. Today, LightHawk is the oldest and largest nonprofit, volunteer pilot-based organization flying environmental missions in collaboration with hundreds of partner organizations.

At LightHawk we believe the view from the window of a small airplane provides a powerful and effective platform for research, groundtruthing, environmental awareness, and education.

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