



# Shale Gas Roundup

*A bimonthly publication of the  
Potter County Natural Gas Resource Center*



**October/November 2013**

## **Pipelines Coming: Now's The Time To Prepare**

Many pipelines, big and small, are coming to northern Pennsylvania. Depending on how they're built, they could degrade the environment and adversely affect wildlife populations. Penn State Extension Educator Dave Messersmith framed the issues during the Potter County Natural Gas Resource Center's quarterly public meeting in Coudersport. Other speakers discussed trends in job creation related to gas development and efforts being taken to protect water quality as drilling activity increases.



Messersmith has spoken and written extensively on pipelines that are being built to carry natural gas by the billions of cubic feet to users in the Northeast. Pennsylvania is already both a supplier and a conduit of gas, poised to play a critical role in the coming years as companies drill down two miles or more into multiple shale formations.



Messersmith listed impacts that must be monitored and potentially controlled, including air pollution, erosion and sedimentation, wetlands disturbance, wildlife habitat fragmentation, deterioration of "viewsheds," spreading of invasive weeds, noise pollution, decreased real estate values and safety hazards. He cited studies showing that populations of some forest raptors, songbirds

*(continued on page 2)*

## Pipelines: It's Time To Prepare *(continued from front page)*



and woodland amphibians could be threatened by pipeline development, while other species could benefit from additional clearings. Messersmith suggested steps that companies could take to lessen the negative impacts:

- locating lines in existing rights-of-way;
- managing rights-of-way to enhance certain wildlife species;
- reducing the spread of invasive weeds and insects;
- boring under sensitive acreage, such as wetlands and streams;
- re-establishing forest cover;
- managing soils and re-seeding responsibly;
- strategic planning of pipeline corridors.

“This is difficult to regulate, because some of the actions are very site-specific,” Messersmith explained. “This may be one area where ‘outcome-based regulation’ as opposed to one-size-fits-all regulation might be appropriate.”

He added that property owners who are approached to lease their land should consider requiring certain conditions before signing.



Potter County Conservation District manager Chris Mitterer (left) shared information on that agency’s commitment to protecting high-quality waterways. Potter County’s dirt and gravel road management program is a success story and local officials must continue to be vigilant, he said.

“These companies are not road experts, they’re pipeline experts,” Mitterer pointed out. “Much of our success when it comes to proper drainage and reducing impact on streams depends on how well we communicate.”

John McLaughlin, chairman of the Triple Divide Watershed Coalition, discussed plans to develop a regional plan for protection of public drinking water supplies.

Potter County Commissioner Paul Heimel, who serves on the Natural Gas Task Force for the County Commissioners Association of Pennsylvania, said he is part of a group that is lobbying for greater state oversight of gas drilling near public water supplies.

*(Photo on front page was taken in July off Peet Brook Road, near Colesburg. Above is a portion of the pipeline storage yard on a hilltop off Rt. 49, north of Coudersport. A large pipe yard has also been established along Rt. 6, just east of Galeton.)*

## Patience Advised As Gas Jobs Are Slow In Arriving

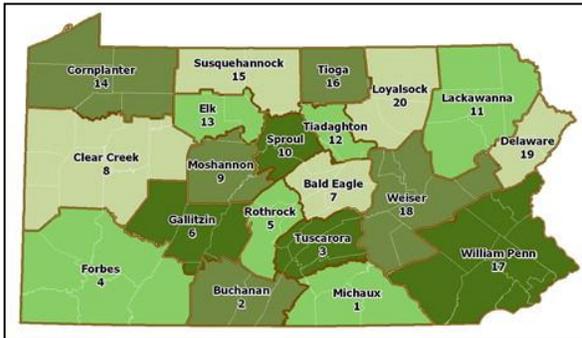
“Patience” was the message of a local employment expert who spoke at the Potter County Natural Gas Resource Center’s public meeting in September.

“There are jobs out there in the gas industry, but you must be willing to travel,” said Terry Cole, administrator of the Pennsylvania CareerLink offices in Potter and McKean counties. Lingering low prices at the wellhead have delayed local drilling, so companies have shifted to areas where the gas supplies have already been tapped. Cole said CareerLink had listings for just two truck drivers in Potter County. Statewide, there are hundreds of job openings, many of which require professional or vocational training. A broad variety of resources, including job training opportunities, are available for individuals seeking employment in the gas industry. Those interested in details are advised to contact CareerLink at 274-9330. Topping the



list of new jobs filled in Pennsylvania last year were equipment operators (30%), followed by operations/maintenance personnel (20%), commercial (13%), construction (11%), administration (8%), environmental health/safety (4%), land/real estate, well services and water management.

## Drillers Moving Onto State Forest Land



Beneath the trees that have been a bounty for wildlife and a boon for timber-cutters lies a resource worth billions of dollars. Natural gas fills the subsurface of state forest, game and park lands across Northcentral Pennsylvania. Much of that acreage exists in a “split estate.” The commonwealth owns the surface rights, but private owners – many of them energy companies – own the mineral rights. Now that natural gas has been

confirmed in multiple shale layers, and technology has been developed to harvest it, massive sections of the state forest are going to be drilled. While companies are zeroing-in on their own holdings, some of them have also been awarded drilling rights on acreage where the state does own the mineral rights. Lease payments and royalties are being eyed by some in Harrisburg as a solution to the state’s budget crunch. So far, the Forestry Bureau has adhered to a non-binding moratorium on additional leasing. Foresters at the Elk State Forest office in Emporium are working with Seneca Resources to minimize the impact of its drilling in the East Branch Dam area. Seneca plans to drill multiple wells on at least half-dozen pads and develop pipelines, compressors, and meter stations. Meanwhile, in the Hicks Run area, energy company EQT is preparing for multiple shale gas wells and a pipeline. (See related story on page 5)

## Potter County: Water Protection Starts Here



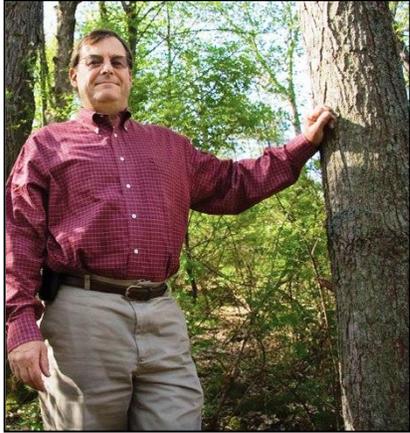
A comprehensive water protection campaign that began in the headwaters of Potter County is spreading downstream. September's meeting of the Triple Divide Watershed Coalition attracted representatives from several other areas where shale gas drilling and other threats to water quality have prompted local officials to join forces. Among the counties that are building their own sourcewater protection alliances on the heels of the Potter County experience are Elk, Tioga, Columbia, Montour, Berks, Pike, Lycoming, Clinton and Sullivan. The difference between this effort and some previous water stewardship campaigns is an official imprint that

includes county commissioners, planning agencies, conservation districts, and public water authorities, with technical support from DEP and Penn State Extension. Credibility and communication are important components. Long-range goal is to have each county take some responsibility for protecting the water from the point where it enters the county borders to the point where it crosses over into the next county. Among developments:

- Triple Divide agreed to partner with a similar organization in Tioga County for a groundwater mapping project. The flow map will use local well data and sourcewater protection zone delineations, combined with GPS coordinates, to chart groundwater flow. It would be a valuable component for agencies rendering decisions on activities that might affect water sources.
- Members agreed to seek funding for continuous monitoring equipment on public water sources. The effort is modeled after a project spearheaded by Kim Bonfardine from the Elk County Conservation District and Sourcewater Protection Coalition. She explained the steps taken to install continuous monitors with data loggers and satellite telemetry on 11 water sources. A website carries live data measuring turbidity, conductivity, pH, dissolved oxygen, temperature and water level. Potter and Tioga counties plan to team for a similar project.
- Dr. Jennifer Whisner (right), chair of the Sourcewater Protection Group in Columbia/Montour counties, offered to assist with technical issues and regional strategies. She is a professor of hydrogeology at Bloomsburg University.
- Triple Divide Watershed Coalition Chairman John McLaughlin and DEP geologist Mark Stephens reported on their meeting with Marcus Kohl, director of DEP's Northcentral Region in Williamsport. McLaughlin emphasized the need for DEP to recognize sourcewater protection zones in the permit review process.
- Eric Moore, chairman of the Northcentral Sourcewater Protection Alliance of Lycoming, Sullivan and Clinton counties, offered his group's support for a broad, multi-county campaign to advocate for water protection initiatives.
- DEP's Mark Stephens reported that the agency is seeking bids for the plugging of two orphaned wells that have been polluting public water supplies in Shinglehouse Borough. Recognizing that these wells are located within a water supply recharge area has had a great influence on DEP's distribution of limited funds.



## Natural Gas Advisory Committee Formed By DCNR



Pa. Dept. of Conservation and Natural Resources recently convened the first meeting of its Natural Gas Advisory Committee. The group will work with DCNR to help identify concepts, best practices and principles, and assist in integrating them into the department's natural gas management efforts on state lands.

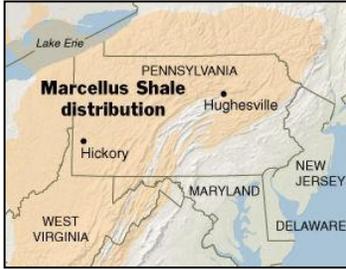
Dr. Jim Grace (left), Penn State University's Goddard Chair in forestry and environmental resources conservation, will chair the committee. DCNR's Bureau of Forestry will coordinate its work. At an organizational meeting in early October, members received background information and an update on the

Bureau of Forestry Monitoring Program related to gas extraction. Members come from a variety of backgrounds including conservation groups, universities, gas industry, environmental consultants and recreation-related organizations. Among them is Tioga County Planning Director Jim Weaver (right). Also serving are:



- Stephen Barondeau, Anadarko Petroleum Corp.
- Scott Bearer, The Nature Conservancy
- Merlin Benner, Wildlife Specialists
- Dale Bruns, Wilkes University
- Patrick Drohan, Penn State University
- Katy Dunlap, Trout Unlimited
- Kim Kaal, Shell Energy
- Jeff Larkin, Indiana University of Pa.
- Dick Lepley, Pa. Off-Highway Vehicle Association
- Frank Maguire, International Mountain Biking Association
- Craig Mayer, Pa. General Energy
- Linda Ordiway, Ruffed Grouse Society
- Dale Rowekamp, Seneca Resources
- Richard Stafford, Carnegie Mellon University
- Susan Stout, Northern Resource Station, U.S. Forest Service
- Wayne Wheeler, International Assn. of Geophysical Gas Contractors
- Davitt Woodwell, Pa. Environmental Council
- Tom Yarnick, XTO Energy
- Ephraim Zimmerman, Western Pa. Conservancy.

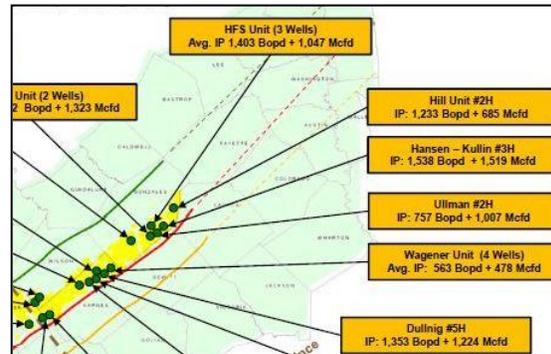
For more information about gas development and related topics involving state forest land management issues, policies and organizational structure, visit the DCNR website, [dcnr.state.pa.us](http://dcnr.state.pa.us).



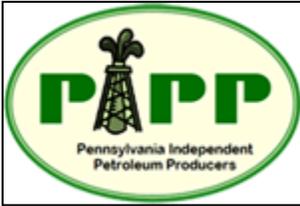
## Shale Gas News And Notes

A summary of timely shale gas news and related topics from across the Marcellus Shale region and around the nation.

**Forced Pooling Case Watched.** A gas driller is preparing to test its rights to tap into gas reserves without the owner's consent. Hilcorp Energy Co. claims that a Pennsylvania law more than five decades old gives it the right to combine a group of unwilling Mercer County landowners' holdings with others into a 3,200 acre drilling unit. If Hilcorp succeeds, it would be the first time in Pennsylvania's shale boom that a driller used the tactic, and it could lead to more widespread use. Hilcorp is using a legal maneuver known as "forced pooling," in which neighboring plots of land are combined into a single unit for drilling, even if property owners oppose it. Any use of forced pooling likely will ignite a public outcry. Forced pooling laws of varying strength exist in nearly 40 states. Most laws were passed in the middle of the 20th century to promote conservation and end the days when derricks competed side by side to draw oil from the same pool. Hilcorp is targeting gas in the Utica shale, which is located beneath the Marcellus layer.

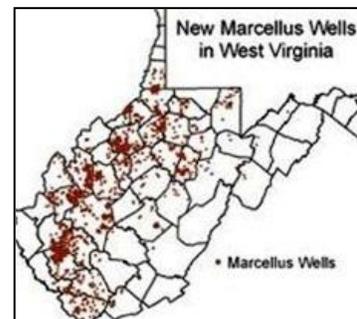


**W. Va. Mulls Natural Gas Trust Fund.** Some lawmakers in West Virginia want to create an oil and natural gas trust fund to support core government functions decades from now, after the gas is depleted. "This is really about protecting the long-term fiscal health of the state," said Ted Boettner, director of the W. Va. Center on Budget and Policy. "Without a plan, we're likely to continue to experience a lack of economic diversity, cycles of boom and bust and poor economic outcomes." Other states with abundant natural resources, such as North Dakota, have set up legacy funds as Alaska voters did in 1976 with a constitutional amendment. That vote came during construction of the trans-Alaska pipeline. West Virginia's fund would be built with a portion of oil and natural gas severance tax collections. Severance taxes contributed an estimated \$462 million, or 11 percent, to total general tax revenues in the fiscal year that ended in June. The trust would be limited to supporting a few needs including education, economic development or tax relief once it became accessible.



**Act 13 Oil/Gas Rules Opposed.** Members of the Pa. Independent Petroleum Producers (PIPP) are calling for relief from regulations included in Pa. Act 13 of 2012. PIPP held a forum in Titusville to press its case. PIPP was formed in the wake of the Pa. Oil and Gas Act of 1985 (Act 223). Purpose of the public session was to emphasize the difference between conventional oil and gas production and the more complex process, including large-scale hydrofracturing and horizontal drilling, for shale gas. PIPP president Gary Hovis said conventional wells should not be required to meet the Act 13 standards for on-site water disposal, notification of municipal governments, increased inspections, more complex permit application, and additional security equipment on well site equipment.

**'Blocking' Gas Wells.** Litigation in West Virginia over a tactic employed by gas-drilling opponents is being closely watched. Pittsburgh-based EQT Corp. is involved in two lawsuits with landowners who drilled water wells in an area where EQT wanted to tap the gas. This "blocking" strategy has been used for years, according to attorney David McMahon: "One of the ways you can have some reasonable use of your surface is to drill a water well." West Virginia law prohibits gas wells within 250' of existing water wells. EQT says the landowners acted with "malice aforethought" and is asking the court to order that the water wells be plugged. Pa. Act 13 of 2012 may eliminate such blocking tactics. Only water wells and structures in place at the time the gas company submits its permit application count toward setbacks. Companies have also been writing clauses into leases, committing the landowner to not build a structure or drill a well that would block gas drilling. (Source: *Pittsburgh Post-Gazette*)



**High Marks For DEP.** A review of DEP's oil and gas regulations gives the agency high marks. It was conducted by the nonprofit organization, STRONGER Inc. (State Review of Oil & Natural Gas Environmental Regulations). A team of six reviewers praised DEP for its handling of the recent natural gas boom; specifically, increasing staff levels to address additional permitting, inspection and enforcement activities. STRONGER's only staff member, James Erb, was director of DEP's Oil and Gas Bureau from 1984-2004. He is now an independent consultant for the American Petroleum Institute and the Independent Petroleum Association of America. Reviewers were a mix of two representatives each from environmental groups, government, and industry. DEP Oil and Gas Management Office head Scott Perry serves as a STRONGER board member. STRONGER is funded through federal grants as well as grants from the American Petroleum Institute. The report did find areas the agency could improve, including making its websites more user-friendly and issuing violations more consistently: "The review team has determined that DEP has not historically used a consistent method for issuing violations, making it difficult to evaluate compliance with regulations and DEP performance over time." The report also notes that "certain sections of DEP's Oil and Gas Bureau remain understaffed."

**Smaller 'Footprint.'** Energy companies are finding ways to reduce their environmental impact through better technology, according to Bruce Snyder, a compliance specialist with Range Resources, who addressed the Pa. Federation of Sportsmen's Clubs recently. "We're drilling wells faster and we're getting better at it," Snyder said. "It used to take roughly 40 days to drill a gas well, but now it's down to about 20 days, so the rig count in Pennsylvania is down from 130 in early 2012 to about 50 today. We're also drilling longer laterals, which results in much less surface disturbance." Additionally, Snyder pointed out, companies are drilling more wells from a single five-acre pad. Current average is 2.4 wells per pad and the figure will continue to rise, he said. While the number of new shale gas wells has crept down from 1,965 in 2011 to a forecasted 1,100 for 2013, gas production in Pennsylvania is rapidly rising. It's up by 60 percent over the past year and has increased by 1600 percent since 2008.



**Managing Marcellus Money.** Coudersport native Tim Gooch, a certified public accountant with ParenteBeard, chairs the Marcellus Shale Committee for the Pa. Institute of Certified Public Accountants. Gooch advises those who expect to profit from the gas industry to take an informed, long-range approach. He noted that after an initial rush, shale gas drilling subsided in early 2011, which presented challenges to businesses that had experienced boom times.

"Some citizens appreciated the fact that the long lines, heavy traffic and other side effects of a boom had subsided, but it has been a tough adjustment for some businesses," Gooch explained. "A lot of the motels, anyone with a rental property, restaurants, grocery stores, convenience stores – all those businesses benefitted, but when the economics changed, they felt the impact." Smaller energy companies requiring more immediate cash flow relocated to other areas, turned to other products, or sold their interests to larger operators who were better cushioned to wait things out. But the experts consistently forecast that drillers will return once the economic conditions improve and the pipeline distribution system is in place. "The gas isn't going away," Gooch pointed out. "Some companies are taking the opportunity to expand pipelines, increase infrastructure and create a long-term presence in the region." The lull also gives those who are in a position to benefit more time to plan. Gooch recommends that they avail themselves of professional services. "Anything from business planning to income tax, accounting, estate planning to wealth management – some important decisions need to be made," he advised. "Revenue streams that are generated by natural gas aren't always consistent. First and foremost, make sure the money that will be owed in taxes is in a conservative investment. Second, find a reputable financial planner to help you identify short-term and long-term goals. And, finally, consider having some money set aside for a rainy day. Impulse purchases are pretty irresistible and might be okay, but not at the expense of reaching your long-term financial goals."

# Opinion: On The One Hand...

## Stop Drilling Until We Can Study Its Impact

Summary compiled from reports by Katie Colenari of StateImpact Pennsylvania ([stateimpact.npr.org](http://stateimpact.npr.org)) and Laura Beans of EcoWatch ([ecowatch.com](http://ecowatch.com))



Legislators will soon be considering a bill that would place an “open-ended” ban on natural gas drilling in Pennsylvania. Senate Bill 1100, the Natural Gas Drilling Moratorium Act, was introduced by Sen. Jim Ferlo (D-Allegheny). It doesn’t place a time limit on the moratorium while a seven-member commission, created by the bill, studies a range of impacts of hydraulic fracturing on the state. “It’s not closed because we don’t want to anticipate what the results will be,” Sen. Ferlo said. He added that the commission would likely need at least three years to complete the study. The bill would halt any new permits for natural gas drilling. Some 14,000 wells that have already received permits from DEP would be grandfathered-in.

“Since the advent of the shale gas industry in Pennsylvania, I have advocated for a more cautious approach,” said Ferlo. “We have seen the damage wrought by careless oil and gas drilling companies on our land, water, air, property, families and livelihoods. Pennsylvanians and gas field residents all over the country have been forced to stand by and watch these infractions, and we must take a step back to deliberately and thoughtfully direct our path into the future.”

The Well Drilling Study Commission would conduct unbiased research on a number of issues, including drinking water protection, air quality regulation and the disclosure of chemicals used in the natural gas extraction process. The commission would also review the legal, mineral and property rights of existing oil and gas operations in the state. Attention would be paid to the agricultural, environmental, economic and social impacts of drilling for natural gas.

Ferlo compared it to what neighboring New York State is doing as lawmakers there decide whether or not to lift a moratorium. While a Republican-controlled House and Senate make the chances of such a bill passing very slim, drilling has also caused a rift in Pennsylvania’s Democratic Party. While a majority of members voted in June in favor of a moratorium, some legislators have argued that it sends the wrong message. Ferlo acknowledges it’s a bill Governor Tom Corbett would never sign.

When asked how he would face critics who say a moratorium would be unrealistic and even impossible at this stage of natural gas, Ferlo said he believes there is enough public support to give it a chance.

“There is a growing concern about the manner in which this industry operates in a very unregulated way without very many environmental regulations,” he said. “I think we need to cover all fronts.”

Republican lawmakers have already jumped on the proposed legislation, accusing Ferlo and other Democrats of “catering to the extreme left-wing of their party” and ignoring the economic benefits the industry has brought to Pennsylvania.

# **Opinion: On The Other Hand...**

## **Why Quit, Now That We're Winning?**

By Jim Cawley, Pennsylvania Lieutenant Governor

We are about to mark an anniversary we'd all be smart to remember before joining the Flat Earth Society that is debating whether or not to blow up the state's economy. In October 1973, oil-exporting nations cut off exports to the U.S. as punishment for our support of Israel, the lone democracy in the Middle East.

Gasoline prices jumped. Home heating prices soared because the price of oil dictated the price of everything else energy-related. Families were told to turn down the thermostat, and cars lined up outside those service stations that were still running. We were hostages in our own land.

Jump ahead 40 years and consider the words of Saudi Prince Alwaleed bin Talal: "Rising North American shale gas production is an inevitable threat" to the economy of Saudi Arabia. Think about that. Forty years after the embargo, a major OPEC country is worrying about America's emerging energy independence. They have good reason. Saudi oil exports to the U.S. have declined, as have exports from Algeria and Nigeria. And as October got underway, the *Wall Street Journal* reported that the U.S., home of the Marcellus fields, has ascended to the rank of top energy-producing country in the world.

We are talking about American energy independence – a term coined amid long gas station lines and in the speeches of politicians. Our natural gas resources are so abundant that the prices of oil and natural gas have become decoupled. Time was when a jump in oil prices meant a corresponding rise in natural gas. Not so today. Petroleum is selling at twice what it cost a decade ago. Natural gas prices have fallen by half. Disappointingly, some lawmakers are lining up behind a call for an end to hydraulic fracturing, the technology that made energy independence possible. They are, in short, calling for an abrupt halt to 30,000 direct jobs in the state's natural gas industry, and an attack on 200,000 more jobs that depend on or benefit from the Marcellus shale industry. These are jobs that sustain families, enrich communities, and spin off countless economic benefits that reach from the gas fields to the neighborhoods of Philadelphia. And it could mark a return to the days of economic malaise and the thermostat police. Forty years on, we have OPEC worried. At long last we are winning the battle. We'd be foolish to choose defeat.



---

***This publication is produced by the Natural Gas Resource Center in Coudersport, Pennsylvania. Previous editions are available in the website, [pottercountypa.net](http://pottercountypa.net). Anyone with story ideas or comments should contact Paul Heimel ([pheimel@pottercountypa.net](mailto:pheimel@pottercountypa.net)).***