

Straight TALK

by John A. Arway

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An Executive Decision

A recent decision by our Board of Commissioners approved a staff recommendation for me to move forward with evaluating the sale of water access at Pennsylvania Fish & Boat Commission (PFBC) properties and the leasing of natural gas beneath these properties. Some of you may question the merits of this action in light of the Commission's Resource First mission and liken it to selling your birthright for a mess of pottage. I know I did when I first started thinking about the idea. Some natural gas companies contacted us, and they needed to know whether we wanted to lease our properties or not. Since PFBC land is not in large parcels (we only have a total of 43,000 acres statewide), they could drill gas on adjacent properties with or without us. The reality is that this industry is here to stay, and if you believe otherwise, all you have to do is look at the drilling records, which show that 5,000 new Marcellus wells were drilled last year. There are plans to drill over 5,000 more this year. The primary question is what do we do to minimize the damage from the inevitable?

Believe me, I did not reach my decision without much thought, analysis and consternation. In fact, you should know that a number of years ago, I gave a talk at a scientific meeting and presented a formula called "Arway's Equation for Governmental Decision Making." Since I was trained as a scientist, I analyze things in a quantitative, systematic way and use deductive reasoning for my decisions. The idea behind my equation came from a book called "Chaos," which is based upon a form of mathematics called fractal geometry made popular by a mathematician by the name of Mandelbrot in the 1960s. Mandelbrot's fractals were simple, self-repeating equations that could be used to put some order in disorder. His equations could be used to simulate things like snowflakes, mountain ranges and river networks. So, I decided that I would use the same concept to try to put order in the disorder of government decisions using simple linear algebra in the following equation:

$$\begin{aligned} & \mathbf{a} \text{ (The Science)} + \mathbf{b} \text{ (The Economics)} + \mathbf{c} \text{ (The Politics)} \\ & \quad + \mathbf{d} \text{ (The Social)} + \mathbf{e} \text{ (WWRD)} \\ & \quad = \mathbf{\text{The Decision}} \end{aligned}$$

Where a, b, c, d and e are weighting factors based upon the importance of the variable in the decision.

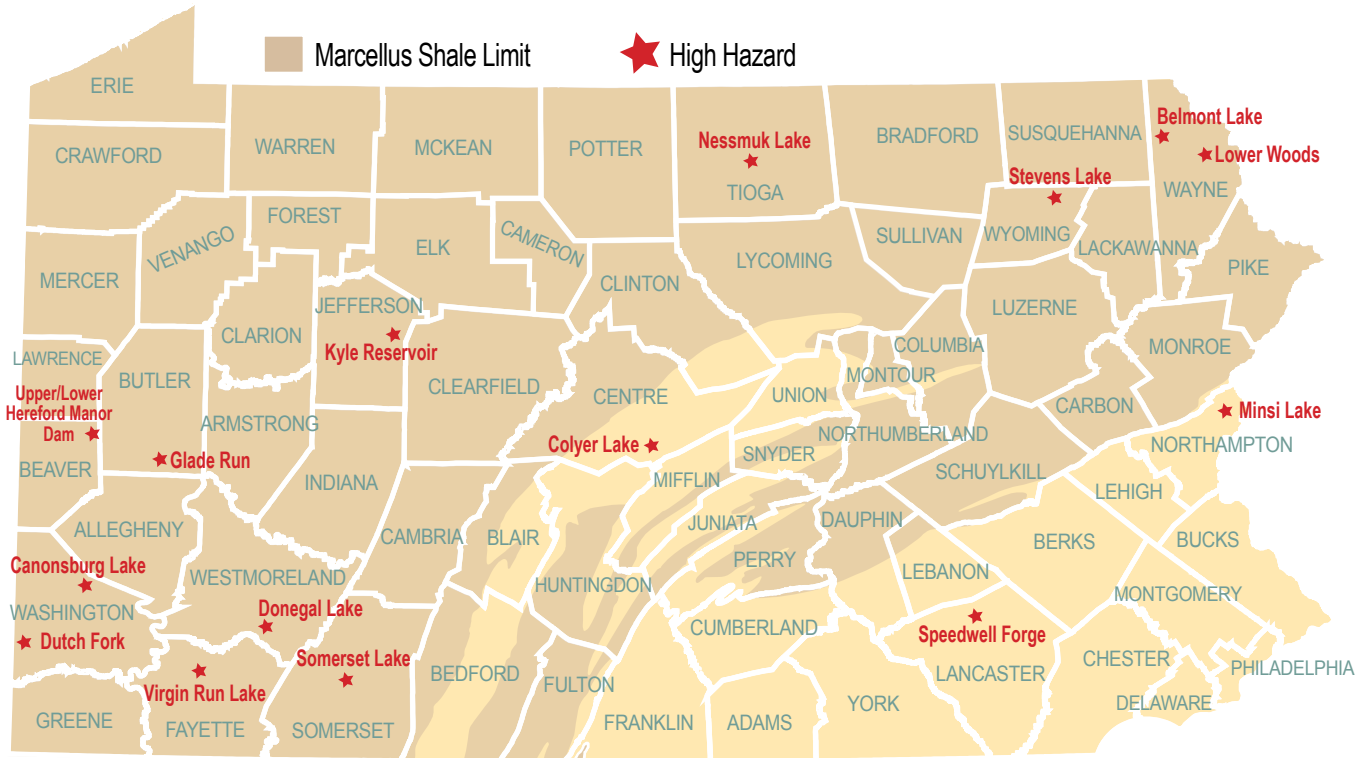
I concluded that we have sufficient science (a) to understand and prevent or minimize the risks. After all, we had oil and natural gas development in our Commonwealth since Colonel Drake drilled the first oil well in Titusville in 1859. The Pennsylvania Department of Environmental Protection (PA DEP) reports that 325,000 oil and gas wells have been drilled in Pennsylvania since 1859 and approximately 88,300 are still operating wells. I spent much of my early career with the PFBC studying the impacts of shallow oil and gas brine discharges to streams in Northwest Pennsylvania and have confidence that we can control the impacts if we use the proper science in combination with our laws, regulations and policies.

The economic analysis (b) told me that the benefits were worth the costs (risks), since they will be drilling these wells with or without us. There was also some risk of possibly losing our natural gas anyway since simple physics tells us that gases flow from a high-pressure zone (under PFBC properties) to a low-pressure zone (areas around us after they are drilled). Another factor that I considered was that we have 16 high hazard dams, many located within the Marcellus Play (see the map on the next page), that need repaired. I don't have the funds to fix them. These revenues would help me continue to provide those resources and the recreation they provide far into the future.

On the political front (c), our Board asked me to visit with the Governor's Office and the minority and majority leaders of the Game and Fisheries Committee in the House and Senate, which I did, and I either received support or was told to proceed, but use caution.

I have also discussed these issues with many sportsmen and conservationists (d), and we will solicit Board approval in open public session for all natural gas leases before they occur. We will only be looking at non-developmental leases (no wells or well pads on PFBC property) and have been told that leasing our land could actually reduce the number of wells drilled around our land if we do not lease. I have the authority as Executive Director to move forward with

PFBC High Hazard Dams within Marcellus Shale Region



the water access agreements, but I will brief Board members on these actions at quarterly public meetings. Staff will have complete control over how these water withdrawals will occur, and we plan to insure that aquatic and recreational uses at our lakes will not be affected by these activities. Other benefits include reducing water truck traffic on local roads by providing direct access to water in the lake and the construction of smaller water storage impoundments at the well site.

My last variable in the equation is WWRD (What Would Ralph Do?). As many of you know, Mr. Abele was a mentor of mine who I, and many of you, respected as one of Pennsylvania's great conservation leaders. He was also a realist, and although he fought long and hard battles to protect the environment, he wasn't a martyr. He knew when to back away from the edge of the cliff to fight another day. Reflecting back in history, I can only imagine Mr. Abele's struggles with a similar decision that he had to make for commercial sand and gravel dredging in the 1970s. I tried to imagine how Mr. Abele might have reached his decision to take the royalty payments from the sand and gravel dredged from the bottoms of the Allegheny and Ohio rivers. I believe that his decision is very similar to the decision that our Board and I had to make for royalty payments for natural gas and water from our properties. Mr. Abele's decision brought over \$1 million per year in royalties to the agency at a time of fiscal need, but there were also risks to the fish

and aquatic life that lived in the river. He made the hard decision to proceed, and I did too. I truly believe that it would be irresponsible as trustee of our resources to ignore this opportunity and fight this industry to my death and not theirs. I think the Board and I got it right, but only the future will tell. We know that this could be our legacy, but we were willing to take that risk, because we believe that it was the right thing to do at this time.

For those of you that couldn't follow my mathematical approach to this decision, I have included the following quote from Dr. Martin Luther King Jr., who said it much better than I did, but causes me to reach the same Executive Decision.

See you on the water.

Your Director

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The mission of the Pennsylvania Fish & Boat Commission is to protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.



"Cowardice asks the question, 'Is it safe?' Expediency asks the question, 'Is it politic?' Vanity asks the question, 'Is it popular?' But, conscience asks the question, 'Is it right?' And there comes a time when one must take a position that is neither safe, nor politic, nor popular; but one must take it because one's conscience tells one that it is right."—Dr. Martin Luther King Jr.