

Senate of Pennsylvania

**MAJORITY POLICY COMMITTEE
MARCELLUS SHALE PUBLIC HEARING**

**Misericordia University
November 18, 2008**

**Testimony Of
Thomas W. Beauduy
Deputy Director & Counsel
Susquehanna River Basin Commission**

Chairman Corman, Senator Baker, members of the Committee, good afternoon. The Commission appreciates the opportunity to provide comments here today and we commend your leadership in addressing this very important issue.

For those of you that may not be familiar with the Susquehanna River Basin Commission, we are a federal-interstate compact commission. We were created in 1971 by the passage of concurrent legislation by the General Assemblies of the three basin states, Pennsylvania, New York and Maryland, and then by the United States Congress, all of which were signed into law by the respective governors and the President to create the Susquehanna River Basin Compact.

Under the terms of the Compact, the Commission is vested with very broad authority in the areas of water resources planning, management, conservation, development, utilization and allocation. Because that authority emanates from the Compact, all actions of the Commissions constitute a joint exercise of the sovereign powers of our member states over the water resources of the basin. Our four commissioners are appointed, one each by the governors of our member states, and one by the President, and they represent their respective jurisdictions as they take actions that affect the basin as a whole.

In that sense the Commission is somewhat unique; we carry out these authorities not within any one political jurisdiction, but rather with the jurisdictional area of the Susquehanna River Basin. Our jurisdictional boundaries are thus watershed-based, rather than political. While the basin is shared by the three states, most of the basin, nearly 75 percent, is located in the Commonwealth of Pennsylvania. Approximately half of the entire land area of the Commonwealth lies within the basin.

We were asked to comment on the Marcellus Shale Play and by implication the role of the Commission in addressing water resource issues associated with developing that resource.

In short, we have a limited, yet very important role in this activity.

Our business is water resources management, not mineral resources development. We don't regulate drilling or the production or transmission of natural gas. What we do regulate is the withdrawal and consumptive use of water associated with this activity.

Our management objective is to have this industry avail itself of the water resources of the basin in the development of this important mineral resource, but to do it in way that minimizes impact to the basin's water resources.

As you may know, the Commission regulates water withdrawals of $\geq 100,000$ gallons per day (gpd) and consumptive use of water of $\geq 20,000$ gpd. Both of those thresholds are based on a 30-day average.

As the industry ramped up its exploratory drilling this year, we became aware of operations exceeding our regulatory thresholds that didn't have Commission approval. As a result, we took several immediate steps.

First, we issued 2 cease and desist orders, which we coordinated with the Department of Environmental Protection.

Second, we immediately notified all companies known or believed to have been issued Marcellus shale drilling permits by DEP in the Susquehanna River Basin, informing them of our regulatory requirements and recommending that they come forward to address any prior noncompliance and obtain approvals they would need for continuing operations. (A similar notice was sent to all companies operating in the New York portion of the basin that were issued permits by the New York Department of Environmental Conservation as well.)

Shortly thereafter, we negotiated settlements with seven companies and in the last six months we have received 93 applications for surface water withdrawals and consumptive use. Based on the actions taken at the last two quarterly Commission meetings, and those anticipated at our next meeting in two weeks (December 3, 2008) we will have issued dockets for 56 surface water withdrawals approvals and 20 consumptive use approvals.

While that activity was going on, we also took a third step, which was to activate a previously unused rule the Commission had adopted in 2006 that authorized an administrative approval by rule process for projects consumptively using water obtained solely from public water supply systems.

Though the Commission didn't originally contemplate that this provision would be used by the natural gas development industry, it established it with the rationale that the impacts of withdrawals were analyzed at the time approvals were issued to the water supply systems, thus allowing expedited administrative review for users on those systems.

Given the time sensitive nature of staging drilling and hydrofracture infrastructure, and because the Commission only meets quarterly, we utilized this provision to establish an industry-specific approval by rule procedure that has enabled us to turn around consumptive use approvals, generally in less than 30 days.

To date, the Commission has received 90 notices of intent to use the rule, and we have issued 72 Approvals by Rule since July 1, 2008.

The use of water sourced from public water supply systems may have some long-term viability, but this was really seen as a short-term measure to allow activity to continue while requests for surface water approvals underwent review and consideration by the Commission.

As all this was unfolding this summer, we took a fourth step. Using regulatory authority established by the Commission, our Executive Director, Paul O. Swartz, issued a Notice of Determination on August 14, 2008, announcing that, as of October 15, 2008, all natural gas well development projects in the Susquehanna River Basin targeting the Marcellus, Utica or other shale formations and involving the withdrawal or consumptive use of water are subject to Commission review and approval.

Let me offer a few comments on the rationale for this action. First, as the practices of this industry became better known to us, it became clear that there was wide variability in the amount of water being used in drilling and fracking operations, especially between vertical and horizontal wells. That range started in the hundreds of thousands of gallons and ran up to the three to five million gallon range.

Our consumptive use standard is 20,000 gpd based on a 30-day average. Deep well injection, which hydrofracture treatment entails, is considered to be a consumptive use. When you use 600,000 gallons or more in one day on a frac operation, it triggers our requirement. Whether the operation is going to use 580,000 or 620,000 gallons can't always be determined in advance.

Also, stream withdrawals associated with consumptive use are also subject to review, regardless of whether they trigger the 30-day average of 100,000 gpd, if the project triggers review for consumptive use. What we also saw was that withdrawals on cold water trout streams, even if less than 100,000 gpd, had a real potential for impact during low flow conditions.

In our view, this situation revealed the potential for adverse impact, and to confusion in the field. Was that vacuum truck taking water from the stream for an exempt frac, or one that required our approval? How could you avoid noncompliance if the frac operation went over the threshold?

The industry deserves clarity. The determination provides it. If it's a Marcellus or Utica shale formation well, you need an approval, period. It may bring in additional wells, but

it clarifies for the industry, the Commission, local officials and landowners what the rules are.

Along with the Notice of Determination issued to the industry on August 14, we also announced a proposed regulatory change to be recommended to our Commissioners for consideration at their September 11 meeting in Lewisburg, PA.

That recommendation was approved and we are now undergoing a formal proposed rulemaking process that would make the following changes to our regulatory program:

- It would require all requests for consumptive use approvals to go through the administrative Approval by Rule process, rather than the Commission's standard consumptive use application and docketing process.
- It would be an expansion of the current Approval by Rule process in that it would allow project sponsors to utilize a broader range of water sources as part of their approval, including public water supplies, discharges from wastewater treatment facilities and other lesser quality water sources, and withdrawals from other sources approved separately by the Commission.
- It would regulate projects on a drilling pad basis, versus the current docket approvals that address consumptive use on a company lease-area basis. (The current, more limited Approval by Rule process also employs the drilling pad concept.)
- It would require all projects to demonstrate compliance with all state and federal laws for the treatment and disposal of flowback or produced fluids, including brines.
- It would incorporate into the regulations the removal of regulatory thresholds consistent with the determination I referenced earlier, thus making all Marcellus and Utica shale development activity subject to review.
- It would provide for a five year approval term.

The proposed rulemaking was published in the Pennsylvania Bulletin, the New York Register, the Maryland Register and the Federal Register for review and comment. The Commission conducted public hearings in Williamsport on October 21 and Binghamton on October 22 to take comment on the proposal. The public comment period remained open until October 31, 2008 and we received a considerable amount of comment on the proposed rulemaking.

It is our intention to present a final regulation incorporating a number of improvements recommended in the comments we received to our commissioners for consideration and final adoption at the Commission's December 3, 2008 meeting.

Our hope is to streamline the approval process for consumptive use, yet simultaneously require the monitoring, reporting and mitigation requirements that all consumptive users in the basin comply with, so as to enable the Commission to better manage the cumulative impact of such use.

I should also add that the proposed rulemaking does not modify any of the current standards or requirements associated with the review and approval of water withdrawals. They will continue to be subject to the same standards that all withdrawals across the basin are subject to, and we believe are appropriate to protect our water resources as we simultaneously allow for their utilization to support this important industry. A number of the comments we received expressed concerns about relaxing our standards for water withdrawals, but that is not the case. Our existing standards will continue under the new rule.

We stand ready to continue to provide value-added service to the Commonwealth as it moves forward with natural gas production issues associated with the Marcellus Shale.

Finally, I would be happy to respond to any questions or comments from the Committee.

Thank you for the opportunity to present this testimony.