

# Zimmerman & Associates

Environmental Litigation, Mediation, Enforcement & Compliance, Counseling

April 12, 2010

By Electronic Mail

Ms. Pamela Bush  
Secretary and Assistant General Counsel  
Delaware River Basin Commission  
25 State Police Drive  
West Trenton, NJ 08628

Re: Stone Energy Docket D-2009-13-1 and Docket D-2009-18-1

Dear Ms. Bush:

On behalf of Damascus Citizens for Sustainability and NYH2O, we are pleased to offer the following comments on the two pending Stone Energy dockets referenced above.

## **Comments Applicable to Both Dockets:**

Our first and definitely foremost comment on the two proposed dockets is that DRBC should not take any action on these or any other gas development projects in the Delaware River Basin until it has completed adoption of comprehensive regulations to govern natural gas development in the basin. As part of this regulations development process, DRBC should complete and consider a cumulative environmental impact statement looking at the impacts of the full potential gas development within the basin. The press release that accompanied the Executive Director's Determination in shale gas development on May 19, 2009 announced that DRBC would be developing and promulgating regulations in this area. More recently, legislation was introduced in Congress to fund preparation of a cumulative impacts environmental impact statement by DRBC. These two processes should be completed before gas development projects should be considered for approval by DRBC.

The EIS should look at the cumulative effects of the 40,000 to 50,000 wells projected by industry to be completed in the basin over the life of the producing gas zones. It should include the environmental impacts of all phases of this activity including truck traffic to transport water, fracturing chemicals, pumping and pressurizing vehicles, and related traffic issues. This should also include reviewing the impacts on air quality and attainment status designations for airsheds within the basin and the regulatory, social and economic consequences of reclassifying areas within the basin as non-attainment for one or more pollutants.

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Until this cumulative impacts EIS and set of comprehensive regulations is completed, DRBC should not take action on any pending gas development projects. New York State has imposed a permitting moratorium while it is preparing and considering a supplemental generic environmental impact statement, including a substantial portion of the Delaware River Basin. Pennsylvania is in the middle of revising its regulations directed at gas development and this process should be completed before any further permits for gas development are granted. DRBC should extend the same type of moratorium as New York's to the entire basin to avoid making irretrievable commitments of natural resources and irreversible environmental impacts while it conducts its cumulative impacts review and regulation development process.

## **Comments on Docket D-2009-13-1 (Water Withdrawal)**

First, DCS and NYH2O are concerned about the size of the water withdrawal that would be approved for Stone Energy under docket D-2009-13-1. This docket would authorize 700,000 gallons per day to be withdrawn by Stone for its gas development projects in the basin. The first hydraulic fracturing (fracking) project would be for docket D-2009-18-1, the Matouhek Wll but would only need 1 million gallons. On an annual basis, this water withdrawal project will remove over 255 million gallons from the basin, enough for Stone to frack almost 1300 wells at 1 million gallons per well over the five year life of the approved water withdrawal. Thus the potential cumulative effect of the 5 year water withdrawal approval will be vastly greater than the effect of the Matoushek well fracking process. There is no evaluation of these questions in the docket as currently drafted.

Second, before taking action on this water withdrawal, under existing Commission regulations, each location where this withdrawn water will be used (i.e the "area served" by the withdrawal) should be specifically identified and evaluated along with the water withdrawal that supports that activity. Otherwise, there is no way to know what environmental impacts may occur at the sites where withdrawn water will be used.

Third, the water withdrawal docket propose to allow withdrawals to continue as long as the flow in the stream from which water will be removed is at least 25% of the average daily flow. DCS and NYH2O are concerned that this flow is too small to allow this quantity of water to be withdrawn from a stream that already has a small average daily flow. It may well be that ecological flow requirements for the aquatic ecosystem at issue will require a greater amount of water on a continuous basis. This evaluation is part of the process that has started to develop a flow management program to replace the current FFMP (flexible flow management program) when it expires a year from now. Until that process has been completed we will not know

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whether and to what extent the existing flows in the various streams and rivers in the basin can be allocated to projects such as gas development. There is no discussion in the docket of these concerns.

Finally, we understand that there is a Pennsylvania Fish & Boat Commission fish hatchery located upstream from the proposed withdrawal location and a fishing club located just downstream from this location. These two fisheries used could easily be compromised by proposed withdrawal. There is no discussion or consideration of these potential impacts.

## **Comments on Docket D-2009-18-1 (M1 or “Matoushek” Well)**

Our first comment is that many of the requirements that ultimately will apply to this project are not addressed in this docket document. There are numerous approvals that will be required from the Executive Director as the project proceeds. There is no commitment made nor assurance given that there will be an opportunity for public notice and comment on each of these critical steps in the overall implementation of the project once approved by the Commission. Each action requiring Executive Director approval should be announced publicly and an opportunity given for public comment before action is taken on each of these submissions.

Second, the docket indicates that the surface casing on the M1 well was pressure tested for 5 minutes at a pressure of 1500 psi. There is no mention of any pressure testing on the production casing. However, the docket indicates that the well is to be fractured over a three (3) day period at pressures from 5500 to 7000 psi. Clearly, there is no assurance from this docket that the surface casing will be capable of withstanding the much higher pressures that will occur during fracking. There also is no information presented as to whether the production casing will be able to withstand the fracking pressures because we have no information whatsoever about any pressure testing done on the production casing.

Third, the docket indicates that the surface casing extends to 1,924 feet below the pad site elevation and that the production casing extends upward from the bottom of the well at 8,350 feet to 5,500 feet below the pad. This leaves the space between 1,924 feet and 5,500 feet, over 3,500 feet, totally uncased. There is no evaluation whatsoever in the docket of the geology in the immediate vicinity of the well (which might include well boring samples as the well was drilled) to know the composition of the strata located between the end of the surface casing and the beginning of the production casing. In other words, we have no assurance that there are no potential pathways for contamination to move horizontally or vertically from this uncased zone.

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Fourth, the docket indicates that wastewaters from flowback water and production brine will be transported for treatment at facilities outside the Delaware River Basin. The docket indicates that Stone Energy has provided DRBC staff with a list of potential treatment plants to receive and treat this wastewater. The list provided to us by DRBC staff included only four treatment plants all located in the far western portion of Pennsylvania, where there has been far more gas extraction development using slick water hydraulic fracturing. There is absolutely no evaluation in the docket that these plants have either the technology or the capacity to treat the wastewaters that will be produced by the M1 well.

Finally, the docket indicates that Stone Energy will be required to test groundwater wells with a 1,000 or 2,000 foot radius of the M1 well before fracking can occur. The list of substances for which these samples must be analyzed is reasonably extensive but should be expanded to include any and all chemicals used as part of the fracking fluid as well as the other parameters already listed.

We appreciate this opportunity to provide comments on the proposed dockets. Please contact me at your convenience if you have any questions concerning these comments.

Sincerely,

Jeff Zimmerman