



SAVAGE RIVER Watershed Association

PO Box 355 - Frostburg, MD 21532 - 814.442.2530

October 3, 2014

re: Savage River Watershed Association response to:

“Potential Public Health Impacts of Natural Gas Development and Production in the Marcellus Shale in Western Maryland”

The Savage River Watershed Association (SRWA) appreciates the opportunity to continue to respond to the Maryland Institute of Applied Environmental Health (MIAEH) study. **MIAEH’s final report is a very important first step** in documenting baseline health conditions and likely hazards for the citizens of Allegany and Garrett Counties. We greatly appreciate the efforts of the MIAEH team -- their thoroughness, diligence and scientific rigor.

SRWA members attended and spoke at stakeholder meetings and noted that our comments were included in the stakeholder comment section. **We appreciate the inclusiveness of MIAEH's process, although as you will read below, SRWA’s initial concerns remain.**

SRWA Scoping Report Comments made in **January 23, 2014**

The following comments were written in response to MIAEH’s Draft Scoping Report and will provide the **background for our comments to the Final Report**:

1. Inadequate Analysis of Costs of Negative Health Effects:

The RESI and MIAEH studies **do not include a cost analysis of potential negative health effects** beyond MIAEH's projected study of capacity of local medical responses to occupational injuries.

Within the context of local economic pressure for unconventional gas extraction **the failure to project other health-related costs plays into a potentially false sense of economic well-being** and does not permit the means to financially address these concerns; for example, remediation.

2. Inadequate Assessment of Source Waters:

Another concern of SRWA is water quality assessment. No one is supporting a **fractured rock aquifer study**.^{*} Without this study, and therefore, an understanding of the hydrogeology of Maryland's westernmost counties, **how can the adequacy of buffer zones for ground and surface waters be determined?**

(*The three assessment wells that DNR will be drilling in Garrett County are not sufficient to understand the hydrogeology of Allegany and Garrett counties.)

Possible contamination is not only related to drill sites. **Transportation of chemicals** to and from sites and the potential harm to stream reaches from spills should be included in the impact assessment. For example, one spill on top of Savage Mountain on either Route 40 or Interstate 68, which are likely to be heavily travelled roads, would affect the City of Frostburg's water supply facility in Garrett County.

SRWA Final Report Comments

With the above background, SRWA will respond to the same two areas of concern:

1. Inadequate Analysis of Costs of Negative Health Effects:

There is no cost analysis of potential negative health effects, including MIAEH's projected study of capacity of local medical responses to occupational injuries.

MIAEH concludes that there is a **High Likelihood that UNGDP activities will have a negative impact on public health care infrastructure** in Garrett and Allegany Counties.

MIAEH makes five (R40-45) recommendations about healthcare infrastructure; however, **suggested funding mechanisms or leadership for implementation is not specified.**

Therefore, the SRWA continues to recommend that a **full economic accounting of potential negative health effects be undertaken** in order to satisfy the Governor's Executive Order.

2. Inadequate Assessment of Source Waters:

Evaluation of Hazards to Water Quality:

MIAEH's **evaluation of Flowback and Production Water-Related hazards is inadequate due to insufficient data.**

MIAEH refers to "critical data gaps" (p. 46) and that "evidence regarding adverse health outcomes could not be determined because of insufficient data" in their discussion of the evaluation criteria for Flowback and Production Water-Related hazards (p. 47)

Rather than assigning the lowest possible hazard scores for likelihood of health effects and for magnitude/severity of health effects due to insufficient data, **MIAEH should report that these two criteria could not be evaluated.**

Assigning low scores communicates a lower hazard. As MIAEH states, "**it is critical to recognize that the absence of investigation does not constitute an absence of risk or harm**" (p. 48).

Surface and Groundwater Contamination:

SRWA continues to advocate that without sufficient knowledge of the source waters of Western MD and how known hazardous chemicals have contaminated both surface and groundwater supplies for human and animals, **the adequacy of buffer zones for ground and surface waters cannot be determined**. The current setback of 2000' from well pads to residential drinking wells lacks a firm empirical foundation.

The **PA-DEP found residential well contamination of VOCs, ethylene glycol and 2-butoxyethanol attributed to unconventional gas drilling** (PA-DEP records released 8/28/14 after the MIAEH report; letter attached). The PA-DEP has only recently, publicly documented **243 cases of contaminated residential water wells** in an ongoing investigation where we would expect further water chemistry to be released.

The SRWA supports the intent of R20: "Prohibit well pads within watersheds of drinking water reservoirs and protect public and private drinking water wells with appropriate setbacks." However, this recommendation does not go far enough in recognizing other potential impacts on source waters. **Well pads are not the only threats to surface and groundwater**. As mentioned in our 1/23/14 comments on the Draft Scoping Report, there is significant risk to source waters from **truck spills of hazardous chemicals**.

Furthermore, **protection of wells and springs for crop irrigation and animals is not covered under R20**. Water supply in our entire ecosystem must be protected. MIAEH fails to consider water quality impact on the food chain, both animals and crops, affecting human health.

NOTES OF SUPPORT FOR MIAEH RECOMMENDATIONS:

CHEMICAL DISCLOSURE:

R13: "Implement the provisions of H.B. 1030 for timely access to disclosed information by medical professionals, emergency responders, poison control centers, local officials, scientists, and the public" (p. 90).

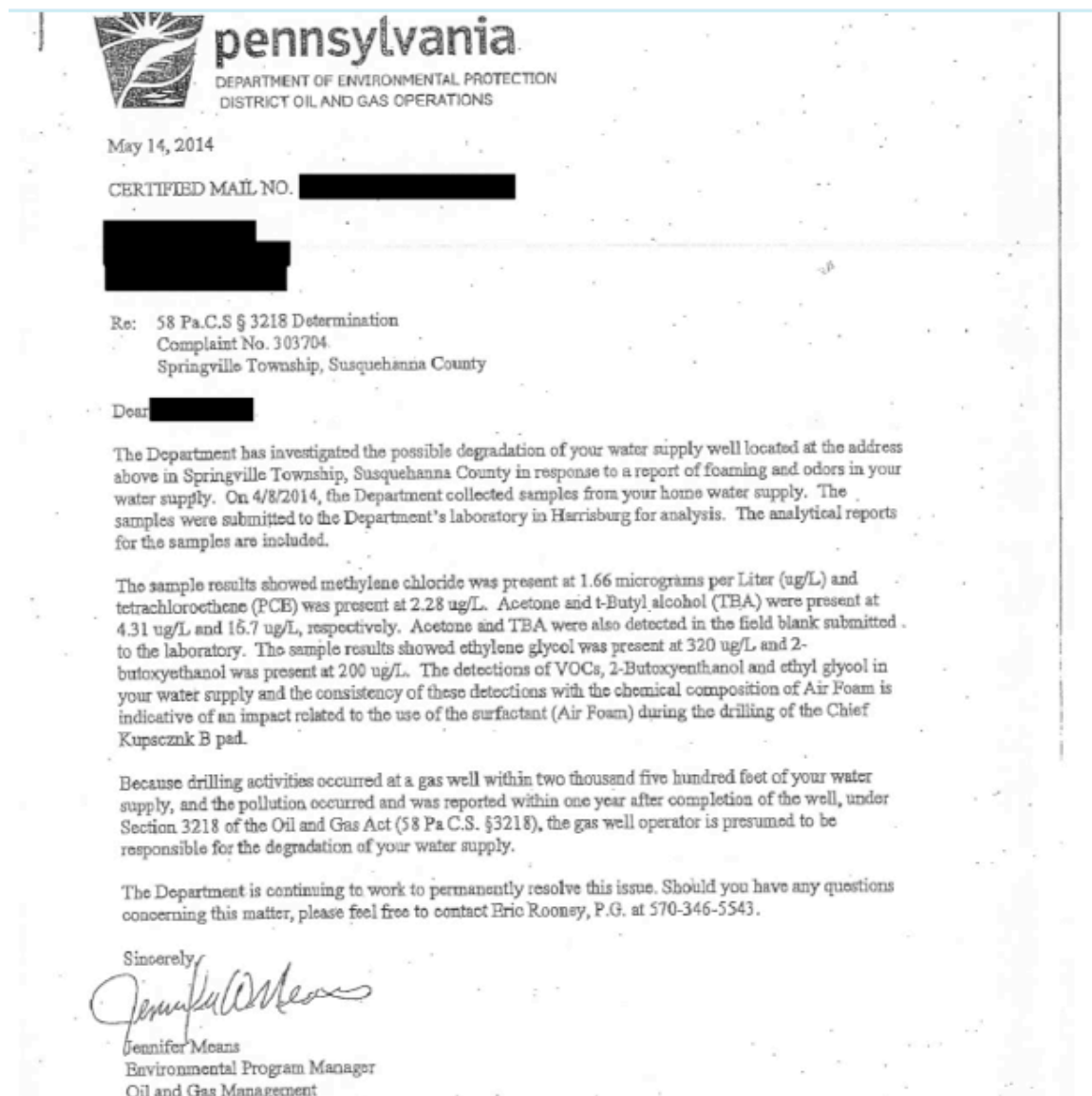
The SRWA strongly supports this recommendation, **which goes beyond the recommendation in MDE's current Best Practices**. We strongly endorse inclusion of full disclosure to the public.

WASTE WATER:

R22: "Implement the UMCES-AL recommendations for management and recycling of flowback and production fluids." "In particular, we endorse their recommendation 3-J: **UNGGP in Maryland should not be permitted until an adequate means of disposal of any residual waste, without extensive trucking, is identified.**"

The SRWA supports this recommendation and, furthermore, concludes that **Class II Injection wells in MD should not be permitted for disposal of waste waters.**

Thank you for your attention to SRWA's concerns. This health impact assessment (HIA) is crucial for informed decisions. However, **there was insufficient time and financial support for this study to address all stakeholder concerns, nor has the HIA process been completed.** Therefore, the SRWA continues to strongly recommend that both MIAEH and the Governor's Commission support an extended legislative review period so that necessary studies can be completed.



*Board Members: Kenny Braitman, Annie Bristow, Frank Fotia, Keith Eshleman
Ed Gates, Carol McDaniel, Rich Raesly, Tom Wolfe, Hana Yoder*