

## Bernard Handler

I want to thank you for coming to the conclusion that there is no way of ensuring the protection of the DRB waters, if fracking for natural gas was permitted. Banning it was the only scientific and rational solution that good be reached. Thank you for that.

That being said I question your position on allowing, (even if discouraging) produced water to be processed in the basin. First off, all of that water will have to be brought in presumably by trucks. Lines of trucks on difficult rain snow and ice, may lead to accidents and spills. This can harm small creeks and individual water wells.

Second, production water is very difficult to treat at processing plants It is near impossible to identify the chemicals used Each frack and stage of the frack is different. Even the drillers can't identify the chemicals that they use because their suppliers have proprietary rights. Even if one is able to get the chemical composition one would have to analyze how each chemical interacts with each other and since each frack is different the possibilities are immense. Also there is the need to calculate how these chemicals interact with the minerals in the ground and water. In addition some of the produced water has been recycled several times making the toxic brew incredibly potent. Traces of radioactivity has also recently been found below treatment plants in Pennsylvania. These traces as well as many of the chemicals used are hazardous in such minute doses as one part per billion and to add to that they are bio-accumulative.

SO WHY WOULD YOU ALLOW THIS EVEN DISPARAGINGLY INTO THE BASIN?

On another issue that hasn't been addressed in the regulations is local spreading of brine on the roads. This should also be banned completely in order to ensure that run off doesn't contaminate basin water. Even ordinary road salt has an affect and the drilling brine that comes up from deep in the earth is much more caustic.

Thank you for allowing me to comment. Bernard Handler