



"David Larsen"

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To <gwtf@emsus.com>  
cc

bcc

Subject GW Use Value etc

Hi,

My name is Dave Larsen and I work for the Utah DEQ-RCRA program. I would like to submit comments regarding the GW use, value etc., paper (the comments are from me, not the Utah DEQ).

1. My first coment is related to my personal experince with the issues and problems the paper addresses. I am glad EPA is taking action. Many DoD and other TSDFs are located in the western desert of Utah. The shallow groundwater in the west desert is typically saline and is not used. Though the shallow groundwater is very poor quality, the Utah non-degradation rules do not specifically address groundwater quality. In almost every case I have seen, it would be a huge waste of money to require someone to cleanup salty groundwater (incomplete exposure pathways are about the only way out, but do not address non-degradation).

In order to deal with the ambiguity of the rules and non-degradation provisions, I worked with an Army facility to define the nature and extent of gw contmaination plumes, develop and validate a subsurface hydrogeological model and characterise the groundwater quality. In other words, we gathered a huge amount of data to make our case. All our data show that contamination occurs only in the shallow aquifer, the groundwater is salty as sea water, dh/dl is very low, K values are low, and a horizontally extensive, lacustrine clay unit over 50 feet thick separates the shallow aquifer from a deeper, confined, potable aquifer. To validate our approach and findings, I co-wrote a paper with an Army contractor, that spells out this info. We submitted the paper to the Utah geological association for peer review and publication (hopefully this fall).

Based on the data we gathered our approach is to protect the potable water, and so most of the monitoring and money is being spent on vertical monitoring in sources rather than constantly defining horizontal plume edges at the water table.

2. The paper should address lack of regulator knowlegde of water quality and water uses.

3. The paper should address how well groundwater cleanups are working in general. Has anybody cleaned up a chlorinated solvent plume to the point it can be used? Will anybody be able to cleanup one these plumes in a human rather than geological time frame? Is it better to just define the plume, remove the sources, monitor and then collect a natural resource damage claim?

Anyway, that is my two cents worth.