

**Shroff, Behram**

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**From:** Behram Shroff - FSME  
**Sent:** Thursday, February 05, 2009 4:09 PM  
**To:** Alan Bjornsen; Irene Yu  
**Cc:** Elise Striz; Stephen Cohen; Myron Fliegel; Andrea Kock  
**Subject:** Notes on GW RAI concall 2/4  
**Attachments:** 2-4-09 telecon on GW RAIs.doc

As attached

## Telecon Summary for Call regarding GW RAIs

Date: 2/4/09

Time: 1.30-3.30 pm

Attendees:	Elise Striz	NRC
	Alan Bjornsen	NRC
	Behram Shroff	NRC
	Tracy Hamm	VHB
	Nicole Scheman	Environet
	Stewart Bland	Chesapeake
	Rick Kuhlthou	Chesapeake

### Agenda:

Environet's questions and clarifications on groundwater issues pertaining to the formulation of RAIs.

### Discussion/Action Items:

The questions were posed by Rick Kuhlthou on Moore Ranch. He is the lead reviewer for MR; Nicole Scheman is the lead for Nichols Ranch and Lost Creek. Elise Striz of URLB fielded most of the questions on the 16 proposed RAIs submitted earlier by Rick. There are no RAIs yet for NR and LC, and Nicole was interested in listening to Rick's questions as a help in formulating her RAIs.

Elise said that there were several RAIs from URLB for which they had incomplete responses from the applicant and if they did not respond, they would have a public concall and what they agreed to could potentially become license conditions—something applicants dislike. She also said that there can only be one round of RAIs. Behram suggested that since ERB has yet to submit their RAIs, perhaps some of the unanswered ones from URLB could be bundled with ERB's. She is going to consult Steve Cohen about this and let us know.

It is well recognized that MR is largely in an unconfined aquifer, NR has the Hank unit which is unconfined and LC has a fault linking aquifers. So each site has unusual GW issues which are not recognized in the GEIS—and they are to be dealt with in the individual EAs.

The GW situation for NR and LC is being modeled to help assess the impacts. The unconfined aquifer for NR extends beyond the license boundary and a drawdown model has been developed. In the case of LC, sands north and south of the fault may need to be characterized. It is also not known if the fault has a hydraulic barrier and which sands are in the production area. John Saxton is a new hydrogeologist in URLB and he is developing a "finite difference model" for LC.

For MR and others, if the applicant's response is inadequate, then URLB will impose license conditions. A "performance-based" license is possible, where the applicant commits to a level of cleanup based on other similar projects. NRC cannot be prescriptive. But the applicant must provide evidence that they can restore the site. The

surety bond is the tool to use to do that. The applicant may be required to provide new wells to a rancher if the drawdown from pumping for restoration is great enough to deprive his cattle of water. There is also the issue of whether the overburden is thick enough to prevent infiltration of contaminants, released from a spill, from reaching GW.

DEQ will also weigh in as they have to license the deep injection Class III wells. Avoid RAIs involving the various classes of wells as that is under the purview of DEQ.

Elise also suggested leaving out hypothetical questions about what would happen if monitoring fails or restoration is not successful. Restoration is required and the surety bond will be used until it is achieved.

A question was also raised about what CEQ says regarding when an EIS is done instead of an EA: Uncertainty. If the impact is uncertain, then an EIS may be appropriate. If the impact can be mitigated, then an EA would be sufficient.

Of the 16 proposed RAIs, Elise suggested eliminating two (#3 & 11) because they pertained to DEQ; for another three (# 14, 15, 16), she was going to consult Steve Cohen and get back before 2/9, when Environet has to deliver the RAIs to us.