Inadequate Water-Quality Information. Because of extremely limited information in the DRAFT, I sought expert advice and received it from two experts:
• an aquatic toxicologist and mitigation specialist,
• a geohydrologist.

Lack of Arsenic Information. Simply mentioning “and/or treatment facilities (including arsenic treatment)” is inadequate treatment of this potentially serious subject in the DRAFT. It is not just a matter of treating any arsenic that may already exist in the water. There is potential for creating an arsenic concentration problem beyond what exists naturally.

How Arsenic May Be Concentrated. Anoxic conditions tend to immobilize the arsenic (when water blocks contact with oxygen) in moist soil. Once water has been drawn away from the soil by the massive drawdowns associated with high-capacity wells, air can enter the interstitial spaces. Oxygen from the air combines with the arsenic thus changing its chemical form (valence). In its new form, it can more easily dissolve in water. This form of arsenic can later migrate through the soil and re-enter the water supply, causing greater concentrations than originally existed. This process is facilitated when pumps are turned off to “rest” then restarted causing another drawdown.

Also see combined effects with calcium carbonate in my letter about total dissolved solids (TDS) and subsidence.

More Study Needed. At the July meeting of the Cooperative Groundwater Management Group, a good presentation about drawdown was given. It also became apparent that concentrating arsenic had not yet been considered as a deep-well issue, thus had not been investigated during the INITIAL STUDY and for the DRAFT.


Unfounded Conclusions. It is illogical to claim “No Impact” on humans near the planned wells and across the valley (p56 b and c), when causing arsenic concentration has not yet been mentioned nor mitigations offered in the DRAFT. It is incorrect to claim “Less Than Significant Impact” on HYDROLOGY AND WATER QUALITY (p38 b), when this issue has not yet been mentioned nor mitigations offered. With this new consideration, it is inappropriate (p 40) to claim “No Impact” because the Project supposedly has no “features that would have the potential to substantially degrade water quality.”

Please Respond. What are you doing to investigate the issue of concentrating arsenic? Please let me know what you investigate, your conclusions and their basis. Include reports/summaries of relevant investigations and/or models in a revised draft.

Also include your planned mitigations beyond just trying to treat the water after it is extracted. Since this kind of treatment is impractical for private well owners, please describe mitigations that will include private well owners.

Please revise the draft BEFORE a Mitigated Negative Declaration is honorably approved.

For the Record. I request this letter be entered into the official comment record of the formal Public Hearing of the Negative Declaration.

Thank you for your consideration.

Sincerely,

Annette DeMay
Ridgcrest, CA 93555

CC:
Ms. Lorelei Oviatte, Kern County Senior Planner
Lahontan Regional Water Quality Board
IWV Cooperative Groundwater Management Group