

Ms. Pamela Innis  
U.S. Department of Interior  
Bureau of Land Management  
Arizona State Office  
DOI Topock Remedial Project Manager  
1 North Central Ave., Suite 800  
Phoenix, AZ 85004

12/2/2015

Mr. Aaron Yue  
Project Manager  
California Department of Toxic Substances Control  
5796 Corporate Ave.  
Cypress, CA 90630

Re: October 19, 2015, Final Design Directives to PG&E on Modeling Follow-up for Topock Groundwater Remediation Project

Dear Mr. Yue and Ms. Innis:

The Chemehuevi Indian Tribe appreciates the U.S. Department of the Interior (DOI) and the Department of Toxic Substances Control (DTSC) effort to address concerns raised during the document review process. At this time, the Tribe would like to address some items relating to the model updates. The Chemehuevi Tribe wishes to reaffirm its support for the Fort Mojave Indian Tribe's stance on requests and concerns they have addressed. For reference we have included the issues that the Fort Mojave Indian Tribe has raised.

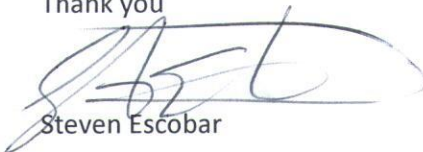
In regard to the model updates to be performed by PG&E and its contractors, the Tribe requests the following:

- 1) Formal participation of the Tribe during the modeling process. This would involve a limited number of representatives (1 or 2) interacting with PG&E's team at key junctures in the model development process. The purpose of this involvement would be to inform the Tribe of planned changes and analyses prior to and during the process, thereby allowing the opportunity for feedback on revisions before the updates are implemented.
- 2) Proposed model updates and revisions will likely change currently projected groundwater flow conditions including water levels, gradients, water budgets, etc., possibly in a significant way. Such results might not only be expected in Arizona, but also beneath the Colorado River and even in California. Of critical importance to all stakeholders, not only how the model will then perform under current "calibration" conditions, but how it performs during the future design and operation. The Tribe recommends that the recalibrated model be used to evaluate future design and operations and a reassessment of the need for and, if so, the number and locations of any monitoring wells proposed in Arizona.

- 3) The Tribe requests that the modelers report additional output, such as water budgets that describe distributed magnitudes of flow between aquifer layers and the Colorado River, and flow magnitudes by layer in the paleochannel versus beneath the River, under both calibrated and remediation conditions. This should improve the understanding of how the remediation system impacts the groundwater flow water balance. This type of data output could be provided in a timely manner as a simple technical memo or data/output package as appropriate for the task being done.
  
- 4) Model Update #8 is not clearly stated. It should be clarified as follows:
  - a. The goal of the exercise should be more clearly defined. It is very important to do the analysis, but how will results be used and what decisions would it support?
  - b. Indicate whether the sensitivity analysis will be conducted over the entire model area, or just within Arizona and beneath the River?
  - c. A predictive sensitivity analysis, similar to that described in current ASTM guidelines, should be performed so that tribes and stakeholders can fully understand what the probable and realistic range of future impacts might be during long-term operation of the proposed remedial system. Determine the extent and magnitude of potential plume and/or byproduct migration into Arizona. Key parameters to which calibration and the future remedial system operation are most sensitive should be systematically varied over a realistic range observed in the field.
  
- 5) The Tribe requests that a predictive sensitivity analysis, similar to the sensitivity analysis indicated in updates #7 and #8, be conducted for fate and transport of Cr(VI), Mn, and As, which will be directly affected by changes in flow conditions resulting from the recalibration of model parameters.

Thank you again for your evaluation of the modeling basis for the remedial design and for providing direction to PG&E for further refinement of the model. If you have any questions feel free to contact us at: (760)858-1140 or through email at [dir.epa@cit-nsn.gov](mailto:dir.epa@cit-nsn.gov) or [ast.dir.epa@cit-nsn.gov](mailto:ast.dir.epa@cit-nsn.gov)

Thank you



Steven Escobar

Chemehuevi Indian Tribe

Chemehuevi EPA Director

Cc: Tribal Representatives

Technical Review Committee