

December 14, 2011

To: Dr. Angela Nugent

From: Venice Scheurich, Conservation Chair of the Coastal Bend Sierra Club (CBSC)

During the October 5, 2011, SAB's RAC teleconference, I made comments highlighting concerns of the Coastal Bend Sierra Club (CBSC) regarding the fact that Texas regulations for in-situ uranium recovery allow uranium mining companies to estimate pre-operational baseline groundwater quality by invalid statistical methodology.

In addition, CBSC was concerned that EPA's June 1, 2011, Draft Technical Report contains no discussion of the importance of, or requirement that, companies use statistically valid protocols to determine locations for baseline monitoring wells. As SAB members were clearly aware, without such a requirement, there is no assurance that baseline wells will yield representative samples for deriving estimates of pre-operational groundwater quality which subsequently become the standards for post-operational groundwater restoration levels.

Therefore, CBSC is heartened to note that the SAB's working draft of November 22 contains language in several sections which, if incorporated into the EPA Technical Report, will rectify some of the current problems in obtaining valid estimates for pre-operational groundwater quality and post-operational restoration standards.

In particular, CBSC members are encouraged to find in the Section 4.2 (page 15) discussion of data quality objectives (DQO) the following statement: "Regulations require these distributions to be based on independent and representative water samples collected from zones in which baseline wells are located by a statistically valid sampling design. . . ."

Also, especially encouraging is the discussion of well placement and sampling in Section 6.1 (page 27) which contains the following sentence: "Any appearance of "cherry-picking" affected locations for underestimating long-term changes due to mining and recovery operations must be avoided."

Additionally, CBSC appreciates the emphasis in Section 4.4 (page 18) on the importance of establishing baseline water quality early in the *exploration phase*, as well as the comments on the necessity of taking into account how drilling, well construction, and development activities affect water samples from baseline wells. We are thoroughly familiar with data used in the references cited (Abitz and Darling 2010, Sass 2011) since these studies were based on mining permit applications requested for areas within the Coastal Bend region.

CBSC recognizes the value of and necessity for modeling in providing a basis for evidence-based decision-making; however, we are particularly concerned about statements made in Section 3.2 (page 7, lines 36 – 40) regarding data which would be used in building the models. In particular, we are worried about these statements since even though mining companies have, indeed, accumulated much data to support their application requests, there is reason to question the quality and representativeness of portions of the available data. This is clear not only from our own research into baseline and restoration issues in several Texas counties, but is also clearly demonstrated in some of the studies (Hall 2009, Abitz and Darling 2010, and Sass 2011) referenced in the SAB's working draft of November 22.

Therefore, CBSC requests that the SAB insert language into Section 3.2 which provides criteria for judging which available data that was generated by mining companies would be acceptable for use in building meaningful models, and which data would not be acceptable for such modeling.

Coastal Bend Sierra Club members express their gratitude to members of the Science Advisory Board and the Radiation Advisory Committee who obviously gave careful consideration to public comments and suggestions as the Quality Review Draft Report for SAB Charter Board Review was revised and refined.

Venice Scheurich