

Tuesday, July 28, 2009 (file cac229)

To: Dan Breedon

Fr: Ed Miller

Subj: Scientific integrity, political-educational controversy, fusion energy and geology

Ref A: www.ucusa.org/scientific_integrity/what_you_can_do, Summarized in Mother Earth news June/July 2009, p 6

Ref B: ER editorial, Water Study has reality drought, ER July 28, 2009, p10A

Ref C: R. Kuttner, The squandering of America, Knopf 2007

Ref D: M. Perelman, The confistication of American prosperity, Pgrave Macmillan, 2007

Ref E: M. Cetron & M Gayle, Educational Renaissance, Our schools at the turn of the twenty-first century, St Martin's press 2001

Ref F: R. Moynihan & A Casels, Selling Sickness, Nation Books/Avalon publishing, 2005

Ref G: S. Dean, External factors affecting fusion energy development, Journal of fusion energy, Vol 18 #2, 99, SpringerLink 2004 (www.springerlink.com/content/pw8n8u39n27v0216/)

Ref H: M.Hill, Geology of the Sierra Nevada, U.C. Press 2006

Highlights and comments:

1. References A & B are concerned about scientific integrity and biased presentation of differential data. This is the classic problem of organizations set up to present options to decision makers and to help recognize bias. From the BOS viewpoint, the first question for consultants is their source of income. The second question is the statistical validity of the data presented. The intention of researchers needs to be explored in depth. A full list of tradeoffs and life costs needs to be put front and center.
2. References C, D, E, & F are typical of political/educational controversy dominated by considerations of efficiency. Ref show examples of fear mongering by pharmaceutical companies: 1. High cholesterol: Pfizer. 2. Depression: Paxil & Lustral. 3. Menopause: Wyeth. 4. Attention deficit disorder (ADD): Shire, Ciba-Geigy, & Lilly. 5. High blood pressure: Pfizer. 6. Premenstrual dysphoric disorder (PMDD): Endicott, & Lilly. 7. Social anxiety disorder (SAD): GSK. 8. Osteoporosis: Merck. 9. Irritable bowel syndrome: GSK, Lotronex, & Novartis. 10. Female sexual dysfunction: Pfizer. In some cases, the drugs associated with the disorders above may have merit based on multiple risk factors but the money spent on "detail men", advertising and medical "education" could be spent in more worthy activities with less side effects. At the BOS level, the goal should be propagating an awareness of the corrosive effects of misdirected advocacy and moderating the changing winds of political and educational thought.

3. Ref G is sample or the volume of literature on fusion energy reported by the Journal of fusion energy.
4. Ref H is good foundation source for understanding the geological basis for building standards, disaster preparation and estimation of geothermal energy. In Butte County, the age of underlying structures associated with Jurassic cooling of magma occurred in the 130-150 million year range. Volcanism is a primary driver for upland rural areas featuring mud and magma flows. Plate tectonics theory is the basis for seismic and volcanic activity prediction. Typical Butte County rocks range from Big Chico Creek conglomerate, Pulga periodotite on the North Fork of the Feather River, Dry Creek Shale near Hwy 191 to Oroville Table Mountain basalt. Hopefully we will have in place measurement tools by 2030 that can anticipate volcanic eruptions, seismic activity and predict the location/water yield from cracked rock aquifers.