

## **WTE Column of Dec. 15, 2013. Editor's Headline: "Setting Ourselves up for Disaster"**

Recently the Industrial Citing Council approved an aquifer exemption DEQ seeks to implement on behalf of the Australian coal giant Linc Energy. The exemption means Linc is permitted to pollute the Fort Union Aquifer, an important water source in Wyoming. Since climate change kicked in, ours has become the fifth-driest state in the nation.

In spite of abundant research in our university's Department of Energy Resources, no Linc-type underground coal gasification projects have ever reached commercial scale. In Wyoming, Linc Energy holds coal leases on 333 state sections, covering over 184,000 acres.

Will we ever learn? This type of experiment was tried here before, in the late seventies—by the U.S. Department of Energy, no less. An irate attendee who, like yours truly, was kept from speaking at the ISC hearing, informed me about Hoe Creek. Later I found that the online *Climate Progress* describes the Hoe Creek boondoggle in an article warning about the dangerous coal experiments foreign companies seek to bring to the U.S. As I understand it, the three 1970s U.S. test burns contaminated Campbell County to the tune of 10 million dollars and took the government 23 years to clean up.

"Continuing to allow development of methods for extracting more and more backward-facing, weather-disrupting fossil fuels, most especially coal, is irresponsible at best and catastrophic at worst," wrote Geri Maria Johnson, a Cheyenne resident, in *Powder River Breaks*.

By the way, who do you suppose is counsel for the Linc Australians? Why, our wily former governor, Dave Freudenthal, and his sidekick, our former attorney general. Only Bruce Salzburg appeared at the hearing; still, is it any wonder that agency sycophants toe the line for their former chiefs?

Earlier this year I attended one of Bill McKibben's "Do the Math" events, which the climate warrior, with the help of his wife and countless volunteers, took across the country. A synopsis of "Do the Math" is captured in a video, on view at [350.org](http://350.org).

The video brings into stark relief the three numbers we must grasp if we are to understand the challenge of combatting climate change. The first is 2°C: that's the temperature rise that all nations, including the U.S., have agreed we cannot go beyond without risking human existence on Earth. (According to McKibben, a rise of two degrees Celsius is actually way too much: it will cause devastatingly extreme weather disruptions, bringing entire nations to the brink of collapse. Earth is  $\frac{3}{4}$  of one degree Celsius hotter now than it was before the industrial revolution—and look what climate catastrophes that "small rise" has brought us.)

The second is 565 gigatons of carbon: this is what scientists insist is the most we can add to the atmosphere if we are to remain within the 2°C limit. That's 565 billion tons of carbon—565,000,000,000—a huge amount, or so it seems. However, we've been spewing 30 billion tons of carbon annually for some time now, and our output is rising by 3 percent annually. McKibben

conjectures that we'll have used up this allotment within a mere fifteen years. (Others have calculated we may have up to thirty years; either way, time is running out fast.)

But it's the third number that's the most alarming. A team of financial analysts in the UK, after examining the annual reports of all currently-existing gas, petroleum, and coal companies, have calculated that the carbon already in reserve with the fossil-fuel industry is five times the amount of what even conservative governments like the U. S. have agreed not to go beyond, namely 2,795 gigatons. That's five times more than the limit that would enable us—barely—to keep life going! What are the chances these companies will refrain from selling their reserves? What are the chances you and I will refrain from using the petroleum that permits us to continue driving to school or to work, when no substitute is on the market?

A December 2013 National Geographic update on climate change cites findings from a panel of the National Research Council that presage sudden climate change disasters, from the poles melting to farmlands failing. Looking at tipping points for global warming, the scientists warn that, in coming years and decades, abrupt climate impacts will likely produce sudden sea-level rise, water shortages, and extinctions worldwide. They urge that early warning systems be put into action.

“Climate change is real, it's happening now . . . we need to deal with it,” states James White of the University of Colorado at Boulder, who headed the panel.

“What's at stake now is civilization itself,” says Lester R. Brown, President of Earth Policy Institute.

Meanwhile, *The Guardian* reports on American Legislative Exchange Council (ALEC) opposing efforts: the group plans to stymie any and all climate-change action. This alliance of corporations and conservative activists seeks to effect legislation that, among other things, will penalize homeowners who install solar panels on the roofs of their homes. ALEC's goal is to weaken clean-energy development across the board. It also plans to block any greenhouse-gas regulation the Environmental Protection Agency pursues—the EPA being President Obama's channel for climate action. *The Guardian* calls ALEC's agenda “a sweeping new offensive.”

If you wonder where our politicians stand: *WyoFile* reports that Wyoming's Governor Matt Mead was keynote speaker at the ALEC policy summit in Washington last week.