

From: Gregory Suber
To: URLGEIS
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Subject: Fwd: Sierra Club comments on NRC GEIS Uranium recovery

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To Whom It May Concern,

Attached the Sierra Club's comments for the NRC's proposed GEIS for Uranium Recovery, submitted according to the Federal Register extended deadline comment period.

Robert E. Tohe

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RE: Uranium Recovery GEIS; Scoping Comments

Dear Sir:

This letter is submitted on behalf of Sierra Club in response to the U.S. Nuclear Regulatory Commission's Federal Register notice dated July 24, 2007 regarding the scope of the proposed Generic Environmental Impact Statement (GEIS) for in situ leach (ISL) uranium mining. The Sierra Club has a significant interest in this issue. The Sierra Club is America's oldest, largest and most influential grassroots environmental organization. Inspired by nature, the Sierra Club's nearly 800,000 members – 14,000 of whom reside in Arizona and belong to our Grand Canyon Chapter – work together to protect our communities and the planet. Our members enjoy and work to protect Arizona's public lands.

The process used to advance the GEIS proposal completely disregards meaningful public participation and critical environmental analysis. In Arizona there are substantial uranium reserves in the BLM Arizona Strip and at the door step of America's great treasure, the Grand Canyon National Park. There are also proposals to explore for uranium on the Tonto National Forest, just below the Mogollon Rim, and at Workman Creek in the Sierra Anchas. Each of these areas has extremely diverse and distinct geologic and ecologic conditions and therefore call for separate environmental impact statements. Given the site specific nature of ISL operations, site specific issues including issues important to the residents of the State of Arizona, should have been raised in the process, but residents of the State of Arizona were basically ignored and never afforded an opportunity to participate in scheduled public meetings.

Many lands north and south of the Grand Canyon National Park have been targeted for uranium mining. Currently, there are 1600 mining claims on the Tusayan Ranger District of the Kaibab National Forest (south of the canyon) and upwards of 6,000 claims on the Arizona Strip. The cumulative impact of scores of mining operations in this area on the Colorado River in the Grand Canyon, as well as on the unique streams and tributaries that feed into the Colorado River will be severe. The Colorado River could affect tens of millions of downstream users in Arizona, Nevada and California. The Colorado River is home for millions of people in one of the fastest growing regions of the country when it comes to water supplies for agricultural, municipal, and recreational purposes. The waters also provide important habitat for native fishes and wildlife. Proposed uranium mining around the Grand Canyon must assess the environmental impacts on the entire Colorado River as well as the tributaries downstream from the proposed mining project.

Mine water poses an environmental threat when it is discharged to surface waters. Such water can change the quality of the surface water if elevated concentrations of

radionuclide's, metals, and dissolved solids are not removed prior to discharge. In arid climates, the discharge of mine water can change the hydrologic conditions of the surface waters – for example, intermittent streams may become perennial streams. These newly created perennial streams can recharge the shallow aquifers in a region and may gradually change the overall chemistry of the groundwater (EPA, 1995)- and not for the better. The future of Arizona rests on the ability of communities to conserve their remaining water sources as well as to utilize new sources of groundwater from distant locations. If ISL processing is used for extraction of the ore, the negative impacts to groundwater could become significant. The concerns would include the leaching of heavy metals in the soil and the ore body into the groundwater. The contaminated water may migrate to non-contaminated aquifers and even eventually into the Colorado River or major feeder streams.

As the U.S. Department of the Interior acknowledges, the American West is facing a serious crisis. In the long run, we will not have enough water to meet the fast-growing needs of city residents, farmers, ranchers, Native Americans, and wildlife. Uranium contamination of the remaining, dwindling supply is irresponsible and will have wide-ranging consequences that will reach long into the future.

For instance in the 2006 Report from the Clean Colorado River Alliance, lists a number of “active or abandoned uranium millsites located along the Colorado River and its tributaries. In 1944 the Atlas Corporation Uranium Mill opened a mill site near Moab, Utah. This mill represents a significant potential source of uranium contamination in the Colorado River Basin.” The mill ceased operation in 1984, but left over 10.5 million tons of uranium mill tailings only 750 feet from the Colorado River. In the course of an EIS preparation, “studies showed that tailings seepage into groundwater had averaged 57,000 gallons/day during the 40-year life of the mill and that approximately 110,000 gallons of this tainted groundwater were reaching the river daily. The underground plume is more than 5,000 feet wide and extends more than 40 feet below the surface. Contaminants present in high amounts include uranium, molybdenum, selenium, ammonia, nitrates and sulfates among many others, with ammonia that's lethal to fish.” Atlas declared bankruptcy in 1997. In 1999 the Department of Energy through legislation assumed clean up of the tailings pile. Water reclamation plans estimated for the underground plume will take about 75-80 years to remediate at a cost of about \$500 million. These costs don't include a proposal to move the tailings away from the Colorado River further north to Crescent Junction, Utah.

By attempting to simplify the National Environmental Policy Act (NEPA) process, the Nuclear Regulatory Commission denies communities in Northern Arizona the ability to protect themselves from potential harm. How can Arizona communities be assured that cumulative impacts from ISL mining will not cause severe impacts to groundwater sources in their communities and for the Colorado River?

The risks and the costs are too high if site specific analysis required for ISL is treated as “generic.” Here in the west there is nothing generic about water quality and the hydrology and the needs of our communities. There are very specific concerns.

Finally, based on uranium's legacy of radioactive contamination in the Southwest, we urge the NRC to thoroughly analyze environmental impacts and involve all local communities in decision making, and to not authorize more uranium development until the impacts from the past have been cleaned up and future contamination can be avoided.

Sincerely,

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