

## Kimberly MacMillan

---

From: **Alex Thevenin** <[alex@azraft.com](mailto:alex@azraft.com)>  
Date: Tue, May 3, 2011 at 2:07 PM  
Subject: Arizona Raft Adventures' comments on uranium mining in the Grand Canyon  
To: "[NAZproposedwithdrawal@azblm.org](mailto:NAZproposedwithdrawal@azblm.org)" <[NAZproposedwithdrawal@azblm.org](mailto:NAZproposedwithdrawal@azblm.org)>  
Cc: Jed Koller <[jed@azraft.com](mailto:jed@azraft.com)>, Fred Thevenin <[fred@azraft.com](mailto:fred@azraft.com)>

Dear Scott:

Please accept this electronic submission on our comments regarding uranium mining in Grand Canyon National Park. Please let me know if you have any trouble opening the attachment.

Thanks,

Alexandra Thevenin

General Manager

Arizona Raft Adventures & Grand Canyon Discovery

4050 East Huntington Drive

Flagstaff, AZ 86004

[alex@azraft.com](mailto:alex@azraft.com)

800.786.7238 or 928.526.8200

[AzRA Website](#); [AzRA YouTube](#); [AzRA Facebook](#)



May 3, 2011

Northern Arizona Proposed Withdrawal Project  
ATTN: Scott Florence, District Manager  
Bureau of Land Management  
Arizona Strip District Office  
345 East Riverside Drive  
St. George, UT  
84790-6714

Dear Scott:

Arizona Raft Adventures (AzRA) and its sister company Grand Canyon Discovery (Discovery), based in Flagstaff, Arizona, have been running commercial guided river trips on the Colorado River in Grand Canyon since 1964. We bring roughly 1400 guests a year on trips ranging from 6 to 16 days in length, from Lee's Ferry to Phantom Ranch and on downstream to Diamond Creek. These folks come to Grand Canyon from all over the world. One of our main goals is to promote and foster a sense of responsibility for the natural environment in which we operate--Grand Canyon National Park--including the wilderness character of the Colorado River corridor within the Park, the Park's natural and cultural resources and the resources of adjacent American Indian tribal lands, as well as those of federal and state lands surrounding Grand Canyon. Protecting Grand Canyon's natural and cultural resources and sustaining the environment is an essential message to Park visitors.

**With this in mind, AZRA supports protecting the Grand Canyon's watershed from uranium mining as outlined in Alternative B in the Northern Arizona Proposed Withdrawal Draft Environmental Impact Statement.** It is our belief that Alternative B affords a minimal level of protection for the lands surrounding the Grand Canyon, which while acceptable as a starting point, will necessarily become broader in scope as the public, the scientific community, and land management agencies continue to consider the serious and long term consequences of further uranium mining on the Colorado Plateau.



**ARIZONA RAFT ADVENTURES & GRAND CANYON DISCOVERY**

4050 E. Huntington Drive, Flagstaff, AZ 86004 1(800)786-7238 Fax: (928)526-8246 info@azraft.com www.azraft.com



Our concerns relating to uranium mining lie primarily in the potential contamination of surface and ground water resources. Uranium can become mobile in the flow of subsurface water, subsequent to disturbance of the breccia pipes where it is mined. Flash floods are also a common occurrence during the monsoon season. Downstream of the potential uranium mining adjacent to Grand Canyon are fragile seeps, springs, and riparian environments, habitat for protected and endangered species, and landscapes unlike any other on the planet. These are the places AZRA's guests seek out. Beyond the protected lands of Grand Canyon National Park, 25 million American's depend on the Colorado River for their municipal and agricultural water needs.

The legacy uranium mining has left us in the southwestern United States is one of contamination, with immediate evidence in Grand Canyon itself:

- The Orphan Mine's drainage into the Redwall Aquifer and Horn Creek (please note that UNLV researchers recently found uranium pollution concentrations in spring water from Horn Creek which were *greater than 500 parts per billion*, when the standard is 30 ppb),
- Hack Canyon Mine's tailings pile flash flooding into Kanab Creek, and
- The Church Rock Mine tailing pond's breach into the Little Colorado River.

In fact, per the Park's own website, "Streams where radionuclides have been found include the LCR, the Paria River, Havasu, Kanab and Lava Chuar creeks, and Pumpkin Springs....Drinking and bathing in these waters is not advisable." We therefore concur with the perspectives expressed by David Kreamer, hydro-geologist from the University of Nevada Las Vegas, when he stated that "I believe that an assumption that uranium mining will have minimal impact on springs, people and ecosystems in the Grand Canyon is unreasonable, and is not supported by past investigations, research, and data."

We are very concerned that the threat to the Grand Canyon watershed is diminished only somewhat by the potential withdrawal since eleven existing mines will be exempt from the ban. Arizona Department of Environmental Quality recently issued three air- and one aquifer-protection permits for a few of those mines (EZ and Pinenut Mines in the North Parcel and the Canyon Mine south of Grand Canyon) despite broad public opposition.

Consequently, as an amendment to the proposed 20 year withdrawal as outlined in Alternative B, we believe the implementation of a region-wide groundwater monitoring program is appropriate, given the limited timeframe of the withdrawal and the potential for mining's impacts in the future. The effects of pollution on this complex and interconnected aquifer system in the Grand Canyon region may take years, decades, or even centuries to be fully manifest. It is the responsibility of all area state and federal land management agencies to develop a clear, consistent, and rigorous monitoring program involving "the emplacement of monitoring wells, regular sampling and chemical analysis of water, and hydrologic and hydrochemical mathematical modeling." ( David Kreamer, "Uranium Mining in the Grand Canyon, Biting my Tongue in Front of Congress", *Boatman's Quarterly Review*, Volume 22, #4, winter 2009-2010) Baseline data relating to aquifer water quality downstream of both protected and non-protected areas is vital in our long term understanding of uranium mining's real effects in the Grand Canyon's watersheds.

AZRA and Discovery have vested interests in intact and healthy ecosystems in the Grand Canyon Region. Our guides have an intimate understanding of the landscapes and ecosystem functions of this region, and their passion for their work communicating this knowledge to our guests reflects this. Our business, along with many others in local regional economies, is dependent on the area's ability to attract visitors. Tourism is the consistent money making industry here in Northern Arizona. Uranium mining threatens these emotional and economic interests.

**Arizona Raft Adventures and Grand Canyon Discovery fully support the implementation of the 20 year withdrawal of these million or so acres from uranium mining development. Our greatest hope is that the withdrawal designation for lands adjacent to Grand Canyon National Park will one day become a permanent one, and be expanded to provide protection for all lands within the Grand Canyon watershed.**

Sincerely,

A handwritten signature in black ink that reads "Alexandra & Fred Thevenin". The signature is written in a cursive style and is positioned to the right of the word "Sincerely,".

**Jed Koller, for Alexandra and Fred Thevenin, owners**