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## Arizona OKs Uranium Mining Permit That Puts Grand Canyon's Groundwater, Springs at Risk

## Mine Threatens to Deplete, Pollute Groundwater, Springs

GRAND CANYON NATIONAL PARK, *Ariz.*— The Arizona Department of Environmental Quality approved an aquifer protection <u>permit</u> late Thursday for a uranium mine near Grand Canyon National Park.

The mine, owned by Energy Fuels Resources, has a history of flooding as it depletes shallow groundwater aquifers that express at South Rim springs. It also threatens to permanently contaminate deep aquifers that feed Havasu Creek and other springs. The approval comes despite calls by the Havasupai Tribe and conservation groups to close the Pinyon Plain Mine given its risks to water and Tribal cultural resources.

"Uranium mines do not belong among the complex groundwater systems that surround the Grand Canyon and Pinyon Plain Mine is a perfect example of why," said Amber Reimondo, energy director for the Grand Canyon Trust. "Uranium contamination in a system like this is forever and while the mining company can walk away, the Havasupai Tribe can't. This is, and always has been, their home."

In late 2016 mineshaft drilling pierced shallow aquifers, causing water pumped from the mine to spike from 151,000 gallons in 2015 to 1.4 million gallons in 2016. In the years since then, inflow has ranged from 8.8 million gallons in <u>2017</u> to 10.76 million gallons in <u>2019</u>; most recently, the mine took on 8,261,406 gallons of groundwater in 2021. Since 2016, dissolved uranium in that water has consistently exceeded federal toxicity limits by more than 300% and arsenic levels by more than 2,800%.

"Neither regulators nor the uranium industry can ensure that mining won't permanently damage the Grand Canyon's precious aquifers and springs," said Taylor McKinnon of the Center for Biological Diversity. "This permit strenuously ignores science showing the potential for deep aquifer pollution, and in a region still plagued by seven decades of uranium industry pollution, risking more, as this permit does, is dangerous."

Groups have repeatedly <u>urged</u> the department to limit Energy Fuels' Aquifer Protection Permit to mine closure, post-closure maintenance and full bonding. Thousands of Arizonans have also urged the department to close the mine. The Havasupai Tribe and the public have 30 days to decide whether to appeal the issuance of today's permit.

"Contaminated waters left behind from the previous uranium boom-bust cycle already plague the region. We shouldn't further risk our life-giving water, especially in the midst of this megadrought. Grand Canyon's springs are vital to people and wildlife and extremely vulnerable to contamination and depletion. We must do everything we can to protect them," said Alicyn Gitlin with Sierra Club's Grand Canyon Chapter.

In 2017 Energy Fuels began spraying uranium-contaminated water into the air to evaporate it and allowing it to drift into the Kaibab National Forest because the amount of water exceeded the facility's impoundment pond capacity. The company has also previously sprayed the water on the ground for dust control and often fails to maintain the integrity of the fenced perimeter; by not covering the onsite impoundment, it allows birds and other wildlife to drink from, bathe, and forage in the polluted pond.

"Mining uranium in the Grand Canyon watershed threatens the enduring legacy of this landscape and jeopardizes the entire water supply of the Havasupai people," said Michè Lozano, Arizona Program Manager for the National Parks Conservation Association. "The company's renaming campaign, from Canyon Uranium Mine to Pinyon Plain Mine, does nothing to change the incredible threats that uranium mining poses to the limited underground sources that feed the Canyon's creeks and waterways."

The ongoing flooding disproves a central premise of the U.S. Forest Service's 1986 environmental impact statement approving the mine, which said that the "low potential for encountering groundwater in the mine effectively eliminates the possibility of contaminating the Redwall-Muav aquifer." In 2012 the Forest Service <u>refused</u> to update that analysis, which the state has since relied on, stating that "very little has changed since the 1986 (analysis)."

"If piercing the Coconino aquifer, flooding the mine shaft, and spraying to evaporate contaminated water doesn't bear out the urgent need to issue a closure permit, what remains," questioned Kelly Burke, Executive Director of Wild Arizona. "ADEQ is alarmingly willing to ignore not only the science demonstrating the real risks of uranium extraction here, but the current damage already underway, to irreplaceable Grand Canyon ecosystems, freshwater, wildlife, and the Havasupai people."

As early as 1986 some state officials<u>warned</u> that mining could pierce and drain shallow aquifers into the mine and contaminate the regional groundwater that feeds seeps and springs in the Grand Canyon. Other hydrologists have since <u>echoed</u> that warning, pointing to more recent science suggesting that uranium mines could contaminate and deplete aquifers connected to Grand Canyon springs.

<u>Research</u> from U.S. Geological Survey scientists, published in 2020, "suggests a hydrologic connection in the area of Canyon Mine" between the Coconino aquifer, which is flooding into the mine, and the deeper Redwall-Muav aquifer, which is the source of the largest springs in the Grand Canyon and Havasu Springs on the Havasupai Tribe's land. Research also concluded <u>that</u> "contaminants, either from land-surface or subsurface sources, are likely to be transported into the deep aquifer." <u>Water</u> in a Coconino aquifer observation well at Canyon Mine is chemically similar to several Grand Canyon springs, as is <u>water</u> from a well drilled into the deeper Redwall-Muav aquifer. Those are indicators of a hydrologic connection and demonstrate the risk that this mine presents to these irreplaceable waters.