

**TESTIMONY BEFORE THE SUBCOMMITTEE ON
ENERGY AND MINERALS**

HOUSE NATURAL RESOURCES COMMITTEE

Legislative hearing on: H.R. 3405 (Rep. Grijalva), To direct the Secretary of the Interior to revise the Final List of Critical Minerals, and for other purposes.
“Uranium Classification Act of 2019”

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Good morning.

Thank you, Chairman Grijalva, Chairman Lowenthal, Ranking Member Gosar, and committee members for this opportunity to speak in support of the Uranium Classification Act of 2019.

I'm Amber Reimondo, the energy program director for the Grand Canyon Trust. The Trust is a regional conservation organization based in Flagstaff, Arizona. Our mission is: "To safeguard the wonders of the Grand Canyon and the Colorado Plateau, while supporting the rights of its Native peoples." We've been working to protect the Grand Canyon and broader Colorado Plateau from the threats of uranium mining and milling for much of the past 30 years.

The Grand Canyon Trust supports H.R. 3405 and its directive to the Secretary of the Interior to remove uranium from the critical minerals list. The

administration's goal in placing uranium on the critical minerals list was to encourage more uranium mining by relaxing legal safeguards meant to check the damage the mining industry causes. But as the Trust has outlined in a recent report,¹ the Grand Canyon and Colorado Plateau have suffered far too much already from uranium's toxic legacy, and curtailing the safeguards that exist will only make things worse. It's this cost of calling uranium a "critical mineral" that I'm here to talk about today.

Past uranium mining and milling activities have exacted a serious toll across the Colorado Plateau. The damage is especially evident on and near Native American lands. The full cost of the uranium business isn't borne by the mining companies who profit in the short term and eventually move on. For they leave behind a bill to be picked up by the American people, who pay for contamination with their health, lives, and tax dollars.

Uranium mining companies often dismiss past contamination as merely a product of a bygone era that lacked the protection of modern environmental regulations. But just as traffic laws are no guarantee against car accidents, environmental laws are no guarantee against irreversible contamination; especially not when they're curtailed. And unlike a fender-bender, uranium pollution remains a threat for many generations into the future. Americans are still grappling with the devastation of uranium operations from the last time the government propped up the uranium industry.

Cleanup of Orphan uranium mine, located on the edge of the Grand Canyon's south rim, has so far cost taxpayers 15 million dollars.² The park service warns hikers not to drink from a creek below the mine "unless death by thirst is the only other option."³

Today, the Navajo Nation has over 500 abandoned uranium mines in need of cleanup.⁴ Regulatory agencies have entered into more than \$1.7 billion in enforcement agreements and settlements for the cleanup of fewer than half the remaining sites.⁵ In 2008, government agencies identified 29 water sources on the Navajo Nation with uranium and other radionuclide levels in excess of drinking water standards.⁶ A 2016 study by the Centers for Disease Control and Prevention surveyed 599 people on the Navajo Nation and found that 27 percent of them had high levels of uranium in their urine, compared to 5 percent of the entire U.S. population.⁷ The same study has also found uranium in the bodies of infants on Navajo Nation.⁸ Perhaps it should be no surprise that in 2005, the Navajo Nation banned uranium mining on their lands.

There are also many examples of problems at more recently developed mines. A 1984 flash flood washed ore from the Hack Canyon mines on the north rim of the Grand Canyon into Kanab Creek,⁹ a major tributary of the Colorado River in the Grand Canyon. And while the Pinenut uranium mine sat idle on the North Rim, the capped mineshaft unexpectedly filled with nearly 3 million gallons of water, which were contaminated by exposed uranium ore.¹⁰ Nearby, radioactive dust at the Kanab North uranium mine has blown from the mine site

into the surrounding ecosystem.¹¹ And two and half years ago, at the Canyon Mine near the Grand Canyon's south rim, miners digging the mineshaft pierced an underground aquifer,¹² which the company claimed would not produce significant water.¹³ But so far, over 18 million gallons of water and counting have flowed into the mineshaft.¹⁴ The company running the mine has been pumping contaminated water out of the mineshaft and spraying some of it into the air when the onsite containment pond gets full.¹⁵

The Colorado Plateau has also been home to at least 22 uranium mills. Four of them were on Navajo lands. All of them left a toxic legacy.¹⁶ Today, only one – the White Mesa Mill in rural southeastern Utah, owned and operated by a company called Energy Fuels – is still operational. It sits right next door to the Ute Mountain Ute tribal community of White Mesa. Groundwater flows south from the mill toward the community.¹⁷ A shallow groundwater aquifer directly beneath the mill is contaminated with several pollutants. Regular groundwater monitoring has consistently turned up results over the legal threshold for several toxic constituents, including uranium. And groundwater quality in the area continues to decline.¹⁸

Cleaning up and maintaining the other 21 mill sites has already cost Americans billions of dollars, far exceeding the selling price of uranium milled at these sites.^{19, 20}

To protect the well-being of American citizens and places as majestic as the Grand Canyon we cannot afford to eliminate safeguards against the risks of

deadly, everlasting, and expensive contamination, particularly when so many Americans are already living with the consequences of the last government subsidized uranium boom. That is justification enough to remove uranium from the critical mineral's list.

Thank you and I'll be happy to answer any questions.

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- ¹ Reimondo, Amber. "Uranium Mining in the Grand Canyon Region." *Grand Canyon Trust*. January 2019. <https://www.grandcanyontrust.org/uranium-mining-grand-canyon-region> . Accessed June 20, 2019.
 - ² United States. Cong. House. Natural Resources Committee, Subcommittee on National Parks, Forests, and Public Lands. Hearing on H.R. 644. "Grand Canyon Watersheds Protection Act." July 21, 2009. 111th Cong. Washington: GPO, 2011 (testimony of David Kremer, PhD, Dept. of Geoscience, University of Nevada, Las Vegas).
 - ³ Heyn, Ellen. "The Hiker's Dilemma." *Grand Canyon Trust*. June 1, 2015. <https://www.grandcanyontrust.org/blog/hikers-dilemma> . Accessed June 20, 2019.
 - ⁴ United States Environmental Protection Agency. "Navajo Nation: Cleaning Up Abandoned Uranium Mines." May 3, 2018. <https://www.epa.gov/navajo-nation-uranium-cleanup/cleaning-abandoned-uranium-mines>. Accessed October 15, 2018.
 - ⁵ United States Environmental Protection Agency. "Navajo Nation: Cleaning Up Abandoned Uranium Mines." May 3, 2018. <https://www.epa.gov/navajo-nation-uranium-cleanup/cleaning-abandoned-uranium-mines>. Accessed October 15, 2018.
 - ⁶ United States Environmental Protection Agency, Bureau of Indian Affairs, Nuclear Regulatory Commission, Department of Energy, Indian Health Services, Agency for Toxic Substances and Disease Registry and Navajo Nation. "Federal Actions to Address Impacts of Uranium Contamination in the Navajo Nation: 2014-2018." Page 6. <https://www.epa.gov/sites/production/files/2016-06/documents/nn-five-year-plan-2014.pdf> . Accessed October 15, 2018. "EPA has entered into enforcement agreements and settlements valued at over \$1.7 billion to reduce the highest risks of radiation exposure to the Navajo people from AUMs [abandoned uranium mines]. As a result, funds are available to begin the assessment and cleanup process at 219 of the 523 abandoned uranium mines."
 - ⁷ Morales, Laurel. "For the Navajo Nation, Uranium Mining's Deadly Legacy Lingers." *National Public Radio*. April 10, 2016. <https://www.npr.org/sections/health-shots/2016/04/10/473547227/for-the-navajo-nation-uranium-minings-deadly-legacy-lingers> . Accessed October 15, 2018.
 - ⁸ Shuey, Chris. Annual Meeting of the CHR Outreach Program, Navajo Nation Department of Health. *Environmental Health Research on the Navajo Nation: Preliminary Results of the Navajo Birth Cohort Study and Selected Case Studies of Exposures to Uranium in Mining Wastes and Drinking Water*, 2015, Slide 16. http://www.sric.org/nbcs/docs/NDOH_CHR_conf_presentation_120315.pdf
 - ⁹ Bills, Donald, and Fred Tillman, David Anning, et al. "Historical and 2009 Water Chemistry of Wells, Perennial and Intermittent Streams, and Springs in Northern Arizona." *U.S. Geological Survey*. 2010. Page 143. https://pubs.usgs.gov/sir/2010/5025/pdf/sir2010-5025_hydrology.pdf . Accessed October 15, 2018.
 - ¹⁰ Golder Associates. Letter to Arizona Department of Environmental Quality, Water Permits

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- Section. "Transmittal of notice of intent to discharge for a Type 3 general aquifer protection permit, Pinenut Mine non-stormwater impoundment, Mohave County, AZ." March 17, 2009. Golder Assoc. Ref: 073-81678E.
https://www.grandcanyontrust.org/sites/default/files/gc_pinenut_mine_groundwater.pdf . Accessed October 15, 2018.
- ¹¹ U.S. Geological Survey. "Hydrological, Geological, and Biological Site Characterization of Breccia Pipe Uranium Deposits in Northern Arizona." 2010. Page 49.
<https://pubs.usgs.gov/sir/2010/5025/pdf/sir2010-5025.pdf> . Accessed October 15, 2018.
- ¹² Dungan, Ron. "Water levels at canyon uranium mine spark contamination concerns." *Arizona Republic*. April 4, 2017. Web. <https://www.azcentral.com/story/news/local/arizona-water/2017/04/03/water-has-accumulated-grand-canyon-uranium-mine-now-what/99843540/> . Accessed 26 Sept. 2018.
- ¹³ Golder Associates Inc. *Supplemental Information for Canyon Mine Development Rock Stockpile: Notice of Intent to Discharge Under a Type 3.04 General Aquifer Protection Permit, Coconino County, Arizona*.
https://www.grandcanyontrust.org/sites/default/files/gc_pinenut_mine_groundwater.pdf. Denison Mines (USA) Corp, March 17, 2009, Submitted to Arizona Department of Environmental Quality, Water Permits. Pages 6 and 9. Accessed October 25, 2018.
- ¹⁴ According to Canyon Mine Non-Storm water Impoundment 3.04 General Aquifer Protection Permit No. P-100333 Annual Reports for 2017 and 2018: In 2017, 8.5 million gallons of water were removed from the mineshaft at Canyon Mine. In 2018, 9.6 million gallons of water were removed from the mineshaft.
- ¹⁵ Reimondo, Amber. "Radioactive Water at Canyon Mine." *Grand Canyon Trust*. April 7, 2017.
<https://www.grandcanyontrust.org/blog/radioactive-water-canyon-mine> . Accessed June 21, 2019.
- ¹⁶ Ambrosia Lake, NM, Title I (Legacy Management (LM) Site); Bluewater, NM, Title II (LM Site); Church Rock, NM, Title I (Pending transfer to LM); Grants, NM, Title I (Pending transfer to LM); L-Bar, NM, Title II (LM Site); Lisbon Valley, UT, Title II (Pending transfer to LM); Moab, UT Title I, (Pending transfer to LM); Shootaring, UT, Title II (Pending transfer to LM); Uravan, CO, Title II (Pending transfer to LM); White Mesa, UT, Title II, (Pending transfer to LM); Monticello, UT, Title I (LM Site); Slick Rock Processing, CO, Title I (LM Site); Rifle, CO, Title I (LM Site); Naturita, CO, Title I (LM Site); Gunnison, CO, Title I (LM Site); Green River, UT, Title I (LM Site); Grand Junction, CO, Title I (LM Site); Durango Disposal/Processing, CO, Title I (LM Site); Shiprock, NM, Title I (LM Site); Mexican Hat, UT, Title I (LM Site); Monument Valley, AZ, Title I (LM Site); Tuba City, AZ, Title I (LM Site)
- ¹⁷ U.S. Geological Survey. U.S. Dept. of Interior. "Assessment of potential migration of radionuclides and trace elements from the White Mesa uranium mill." 2011. P 47.
<https://pubs.er.usgs.gov/publication/sir20115231> . Accessed June 20, 2019.
- ¹⁸ Weinel, Kathy. "Transmittal of Source Assessment Report for MW-30 White Mesa Mill Groundwater Discharge Permit UGW370004." Received by Ty L Howard, Director, Division of Waste Management and Radiation Control, Utah Dept. of Environmental Quality, 13 May 2019, Salt Lake City, Utah.
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- ²⁰ Grand Canyon Trust. Comments RE: Renewal of White Mesa Mill Radioactive Materials License. July 31, 2017. Page 40 and Exhibit 65, Slide 5.
https://www.grandcanyontrust.org/sites/default/files/resources.uranium_comments_White_Mesa_Mill_licensing_2017_07_31.pdf . Accessed 15 October 2018.