The Impact of Hardrock Mining on Native American Communities

Nuclear energy, despited being painted as clean energy, has a legacy of negative environmental health consequences that disproportionately impact Indigenous communities.

There are **more than 160,000** abandoned hardrock mines in the Western United States.

Although reservations only make up 5.6% of the land area in the Western US, 1 in 5 uranium mines are located WITHIN 6 MILES of a reservation.

More than 75% of uranium mines are located *WITHIN 50 MILES* of a reservation.

A **hardrock mine** involves uncovering and extracting non-fuel metal and mineral deposits of solid ores or eroded deposits such as copper, gold, iron ore, lead, molybdenum, phosphate rock, platinum, potash, silver, **uranium**, and zinc.



An estimated 600,000 Native Americans in the Western US *LIVE* WITHIN 6 MILES of an abandoned mine.

Over 1,600 abandoned uranium mines, mills, tailing ponds, and other toxic uranium-related infrastructure are located within the Navajo Nation.



Prepared by:



in partnership with Health Equity Council of Bernalillo County

Proximity to abandoned uranium mines is associated with diseases of inflammation. Inflammation significantly impacts the development of numerous vascular ailments, as well as diabetes, hypertension, and obesity that disproportionately impact members of the Navajo Nation.

A US Public Health Service Study from 1991–2005, showed that **25%** of the deaths in 4137 former uranium miners were attributed to lung cancer. Native miners died at THREE TIMES the expected rate.

Of the 150 Navajo uranium miners who worked at the uranium mine in Shiprock, New Mexico until 1970, 133 died of lung cancer or various forms of fibrosis by 1980.

Sources: Lewis, J., Hoover, J., & MacKenzie, D. (2017). Mining and Environmental Health Disparities in Native American Communities. Current Environmental Health Reports, 4(2), 130–141. https://doi.org/10.1007/s40572-017-0140-5; Harmon, M. E., Lewis, J., Miller, C., Hoover, J., Ali, A.-M. S., Shuey, C., Cajero, M., Lucas, S., Zychowski, K.,Pacheco, B., Erdei, E., Ramone, S., Nez, T., Gonzales, M., & Campen, M. J. (2017). Residential proximity to abandoned uranium mines and serum inflammatory potential in chronically exposed Navajo communities. Journal of Exposure Science & Environmental Epidemiology, 27(4), 365–371.https://doi. org/10.1038/jes.2016.79; Hardrock Mining Overview. https://www3.epa.gov/npdes/pubs/overview.htm; Map: By Self - WikiMedia, CC BY-SA 4.0, https://commons. wikimedia.org/w/index.php?curid=74419376