

# Uranium Mining is Bad for Public Health

*“The historic legacy of uranium mining is that neither the mining companies nor federal and state authorities took appropriate action to ensure that abandoned uranium mines were closed in a way that minimized any adverse environmental or public health effects.”*  
*Chmura Economics & Analytics, Pg. 102*

- Exposure to uranium waste has been linked to cancer and respiratory diseases and can exert toxic effects on kidney function, bone development and the formation of blood cells. Wagner, 2010
- The radioactive chemical element radium is found in uranium waste. If inhaled or ingested, radium is linked to increases in lymphoma, leukemia, and aplastic anemia (National Academy of Sciences, Pg. 155) and increases in radiation exposure result in increases in cancer development in humans. National Academy of Sciences, Pg. 18
- Radium decays into the radioactive gas radon. Residential radon decay “is believed to be the second leading cause of lung cancer overall, the primary cause of lung cancer among individuals who have never smoked, and the leading environmental cause of cancer mortality in the United States.” National Academy of Sciences, Pg. 146

## Contaminated Waste at Coles Hill

A study prepared for Virginia Energy Resources by Lyntek Inc and BRS Engineering determined that the Coles Hill site alone would generate at least 28 million tons of uranium waste. A significant portion of this waste would remain radioactive for thousands of years and needs to be contained on-site indefinitely.

The combination of extreme precipitation and topography puts much of Virginia at extremely high risk for flooding, relative to the rest of the United States. National Academy of Sciences, Pg. 44

A mine or processing facility could also be subject to uncontrolled releases of radioactive materials as a result of human error or an extreme event such as a flood, fire, or earthquake. National Academy of Sciences, Pg. 20

The Coles Hill site hosts three “Class A FEMA Flood Hazard Zones.” Moran, Pg. 6

## Drinking Water Contamination from Coles Hill

A uranium mill waste containment failure at Coles Hill could result in the contamination of local groundwater sources and downstream drinking water sources for over 1.9 million people in Halifax, Virginia Beach, Norfolk, Chesapeake and North Carolina. Baker, 2010

“The partial release of the contents of only one containment cell at the proposed mining site at Coles Hill is likely to result in contaminant concentrations above allowable Safe Drinking Water Act levels in both Kerr Reservoir and Lake Gaston.” City of Virginia Beach, Pg. ES-5

## Cancer Risk to Local Community

When looking at the Coles Hill site specifically, the Chmura report estimates that if severe contamination occurs above federal pollution standards, there could be an additional 3,385 cancer cases over a 75 year period. The cost of treating these cases is approximately \$1,458,000 per year. Chmura, Pg 147-148

All studies are available at [www.KeepTheBan.org](http://www.KeepTheBan.org)