

Addressing Uranium Contamination in the Navajo Nation

April 2012

The lands of the Navajo Nation include 27,000 square miles spread over three states in the Four Corners area. The unique geology of these lands makes them rich in uranium, a radioactive ore in high demand after the development of atomic power and weapons at the close of World War II in the 1940s.

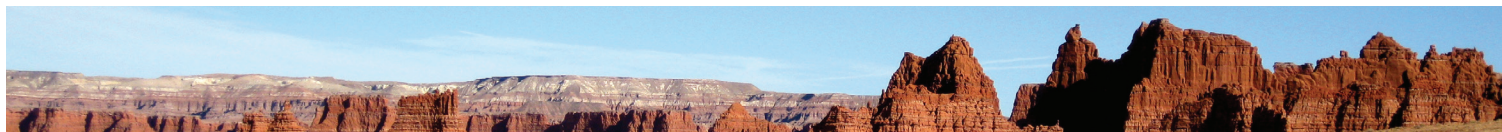
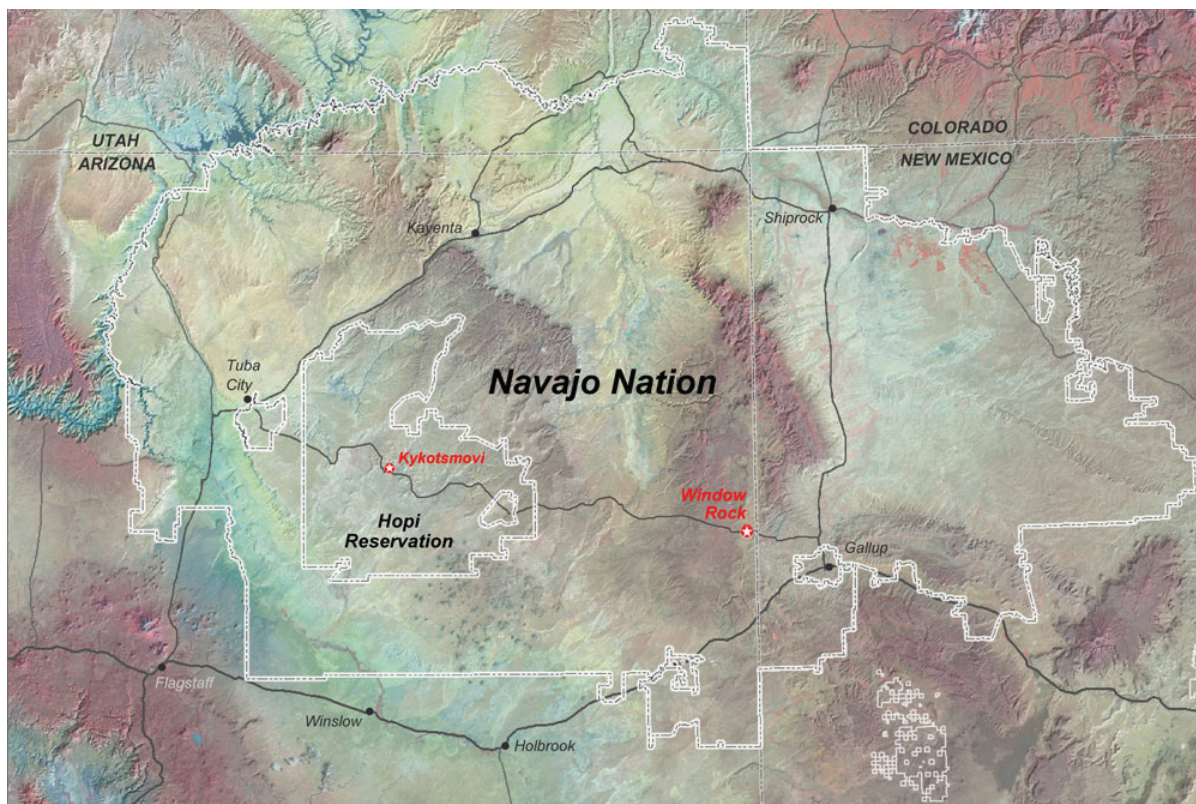
From 1944 to 1986, nearly four million tons of uranium ore were extracted from Navajo lands under leases with the Navajo Nation. Many Navajo people worked the mines, often living and raising families in close proximity to the mines and mills.

Today the mines are closed, but a legacy of uranium contamination remains, including over 500 abandoned uranium mines (AUMs) as well as homes and drinking water sources with elevated levels of radiation.

Potential health effects include lung cancer from inhalation of radioactive particles, as well as bone cancer and impaired kidney function from exposure to radionuclides in drinking water.

EPA maintains a strong partnership with the Navajo Nation and, since 1994, the Superfund Program has provided technical assistance and funding to assess potentially contaminated sites and develop a response. In August 2007, the Superfund Program compiled a Comprehensive Database and Atlas with the most complete assessment to date of all known uranium mines on the Navajo Nation. Working with the Navajo Nation, EPA also used its Superfund authority to clean up four residential yards and one home next to the highest priority abandoned uranium mine, Northeast Church Rock Mine, at a cost of more than \$2 million.

The lands of the Navajo Nation include scenic mountains, mesas and canyons spread over three states in the Four Corners area.



At the request of the U.S. House Committee on Oversight and Government Reform in October 2007, EPA, along with the Bureau of Indian Affairs (BIA), the Nuclear Regulatory Commission (NRC), the Department of Energy (DOE), and the Indian Health Service (IHS) developed a coordinated Five-Year Plan to address uranium contamination in consultation with Navajo Nation EPA. EPA regularly reports back to the Committee and to the Navajo Nation on its progress in implementing the Five-Year Plan.



Navajo Nation,
Shiprock, NM

The Five-Year Plan is the first coordinated approach created by the five federal agencies. This landmark plan outlines a strategy for cleanup and details the cleanup process for the Navajo Nation over the next five years.

EPA is addressing the most urgent risks on the reservation — uranium contaminated water sources and structures. Approximately 30 percent of the Navajo population does not have access to a public drinking water system and may be using unregulated water sources with uranium contamination. EPA and the Navajo Nation EPA have launched an aggressive outreach campaign to inform residents of the dangers of consuming contaminated water.

EPA will also continue to use its Superfund authority to address contaminated structures. EPA and Navajo Nation EPA have already assessed 683 structures, targeted at least 34 structures and 12 residential yards for remediation as a precaution, and rebuilt 14 homes.

Over the course of the Five-Year Plan, EPA will focus on the problems posed by abandoned uranium mines, completing a tiered assessment of over 500 mines and taking actions to address the highest priority mines. As mines that pose risks are discovered, EPA may use Superfund authorities, including the National Priorities List, enforcement against responsible parties, or emergency response to require cleanup. At the Northeast Church Rock Mine, the highest-risk mine on the Reservation, EPA is requiring the owner to conduct a cleanup that is protective of nearby residents. EPA is working with the community to ensure the remainder of the site is cleaned up.

Although the legacy of uranium mining is widespread and will take many years to address completely, the collaborative effort of EPA, other federal agencies and the Navajo Nation will bring an unprecedented level of support and protection for the people at risk from these sites. Much work remains to be done, and EPA is committed to working with the Navajo Nation to remove the most immediate contamination risks and to find permanent solutions to the remaining contamination on Navajo lands.

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