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SHORT TITLE Community Health Study Fund \& Uranium Mining
SB

ANALYST
Armstrong / Sanogo
ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

|  | FY15 | FY16 | FY17 | 3 Year <br> Total Cost | Recurring or <br> Nonrecurring | Fund <br> Affected |
| :---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Total |  | $\$ 241.0$ | $\$ 241.0$ | $\$ 482.0$ | Recurring | Various |

(Parenthesis ( ) Indicate Expenditure Decreases)
Duplicates SB 610. Relates to HM 82, HB 566

## SOURCES OF INFORMATION

## LFC Files

Department of Health (DOH)
Energy, Minerals and Natural Resources Department (EMNRD)
US Environmental Protection Agency (EPA)

## SUMMARY

HB 494 would direct the Department of Health (DOH) to study the health impacts of residents affected by uranium mining activities in the state. The study would be funded from donations, grants and by fees imposed on entities found to be liable for the release of uranium contaminants.

## FISCAL IMPLICATIONS

The Energy, Minerals and Natural Resources Department (EMNRD) would require two additional FTE to conduct uranium site inventories, assessments, inspections and enforcement activities. The cost is estimated to be $\$ 141$ thousand in FY16.

A similar study is proposed in HM 82, and is closely related to the provisions in HB $494{ }^{1}$. DOH estimated the cost of the study to be $\$ 100$ thousand in FY16, based on dedicating one FTE (and associated costs to support the employee) to this research. Since HB 494 outlines a more comprehensive study, the costs are expected to be higher.

[^0]
## House Bill 494 - Page 2

## SIGNIFICANT ISSUES

Although the Department of Health did not provide an estimate for the additional resources it would require, it reported that there were "some questions about the sufficiency of the proposed fund to cover the costs of the study."

The average $\operatorname{cost}^{1}$ of mine reclamation per kilogram of uranium produced ranges between $\$ 2.34$ and $\$ 2.54$; EMNRD data indicate that approximately 58 million pounds ( 26 million kg ) of uranium was extracted in New Mexico since 1980 (see, attachments). Together, this suggests that the pertinent reclamation cost would be $\$ 66$ million (EMNRD also notes that of 260 uranium mines in New Mexico, more than half have no record of any reclamation activity).

As an illustration, $\$ 33$ million is the remaining cost of reclamation. If, optimistically, the Secretary of Health fully collects the 1 percent fee imposed on all strictly liable parties, the fund will have $\$ 330$ thousand available for expenditure. This amount is insufficient to fund a 3-year study that requires (at minimum) \$241 thousand per year.

Limiting the duration of the study to three years, the bill may also pose a burdensome timeline for the Secretary of Health to adopt rules to identify liable parties, and to impose and collect the fees that would fund the study.

EMNRD notes that its inventory of uranium mining sites does not include exploration sites, and that "several hundred of these [exploration] sites could exist." The agency would require additional resources to complete an inventory of all such sites, as required by HB 494.

## ADMINISTRATIVE IMPLICATIONS

HB 494 requires DOH to propose conditions on permits that can mitigate the health consequences of permitted uranium mining activities. According to EMNRD, it is unclear whether its mineral and mining division has the authority to include such conditions on permitted uranium sites under the New Mexico Mining Act. Proposed changes to uranium mine permits would need to be approved by the New Mexico Mining Commission, likely requiring a rule change. Permits for new uranium mills are handled by the NM Environment Department (NMED), and proposed changes to these permits (in general) would need to be approved by the Water Quality Control Commission and would also likely require a rule change.

## DUPLICATION, RELATIONSHIP

HB 494 and SB 610 are duplicates, and relate to HM 82.

## TECHNICAL ISSUES

Section 2 (A) of the bill appears to hold any operator or owner of a uranium mine as "strictly liable", regardless of whether uranium contaminants were actually released into the environment.

[^1]
## House Bill 494 - Page 3

## OTHER SUBSTANTIVE ISSUES

Uranium is a radioactive heavy metal that occurs naturally in the earth. The adverse health effects of uranium exposure are numerous and well known. DOH reports that may be exposed to more uranium if they live in an area with naturally higher amounts of the element. Some geographical regions of the United States, particularly the western states, such as New Mexico and especially west-central New Mexico, exhibit higher than average uranium levels due to natural geological formations coupled with extensive uranium ore mining and milling activities.

During the uranium boom from the 1950s to the early 1980s, New Mexico was the largest producer of uranium in the world. During the early years of the boom, there were few (if any) requirements that uranium mines be reclaimed. The mining and minerals division (MMD) of EMNRD has developed an inventory of closed uranium mines in New Mexico, identifying approximately 260 mines where uranium production occurred. Of these mines, more than half have no record of any reclamation activity. The unreclaimed mines are mainly smaller, older mines. The later, larger mines are largely being reclaimed under current regulatory programs.

JA/AIS/je/bb

New Mexico Uranium Production and Value, 1980-2005


Sources: 1980-1981, Energy Information Administration, U.S. Department of Energy; 1982 to present, Mining and Minerals Division, Energy, Minerals \& Natural Resources Department

New Mexico Uranium Production, 1955-2005


Sources: 1955-1981, Energy Information Administration, U.S. Department of Energy; 1982 to present, Mining and Minerals Division, Energy, Minerals \& Natural Resources Department


[^0]:    ${ }^{1}$ The memorial would direct DOH to compile health data of communities within the Grants mineral belt, an area that has hosted uranium mining and milling activity. This health data would include rates of cancer, birth defects, mental and other maladies that health experts have associated with uranium extraction activities.

[^1]:    ${ }^{1}$ The US Environmental Protection Agency (EPA) published a summary of mine reclamation activities, and compiled the costs of reclamation for a survey of 21 uranium sites. See, http://www.epa.gov/rpdweb00/docs/tenorm/402-r-08-005-voli/402-r-08-005-v1-ch4.pdf

