

soil analysis to test uranium abatement in the laboratories. Funding would support faculty, undergraduate and graduate research stipends, travel and materials costs. Additional funding would be necessary to scale-up a successful model. HB 2 as passed by the House and amended by the Senate Finance Committee includes a \$100 thousand general fund appropriation for clean water drinking technology for FY16.

SIGNIFICANT ISSUES

NMSU reports that

To date, there are thousands of New Mexican families whose only source of drinking water is unsafe for consumption. In 2013, 56% of Public Water Systems in New Mexico received at least one significant violation; these include health based violations, failing to monitor violations and failing to provide proper public notice violations. For 2013, there were 299 violations and 168 public water systems in violation related to lead and copper contaminants across New Mexico. In the same year, for inorganic chemical contaminants, including arsenic, there were 73 violations and 26 public water systems in violation. Finally, in 2013 measuring all radionuclide contaminants, including uranium, there were 44 violations and 11 public water systems in violation.

Drinking water is also obtained from unregulated and potentially contaminated sources such as livestock wells, springs, private wells, or watering points. Affected homes are often economically limited, remote and isolated. On the Navajo Nation alone, approximately 54,000 people use water from sources that are unregulated. The EPA estimates that for these unregulated sources, 12% have heavy metal contamination in their drinking water that exceeds the EPA allowable cut-off at 30 ppb. There are some sites that are extremely contaminated, 700 ppb (23 times the EPA MCL).

Droughts, like those we have begun facing in the state, exacerbate the drinking water situation. The technology of this purification system allows households to make use of any available water source and convert it to potable water. New Mexico has several regions with water pollution problems – including metals and pathogens. This technology is proven to have effectively removed, copper, lead, uranium and other heavy metals as well as pathogens from water.

NMSU faculty have developed a drip filtration system to be used for removing contaminants from drinking water in rural homes and colonia communities. This technology is proven to remove pollutants, uranium, heavy metals, particulates, and pathogens from the myriad of water sources that thousands of New Mexicans rely on for their daily water consumption. This technology will contribute to the economic development of the area; the filtration system can be fabricated locally using regional resources.

At present, the NMSU scientific team has definite proof-of-concept that their technology removes heavy metals and other contaminants from water, as well as conclusive proof that pathogens are removed at quantities great enough to render previously contaminated water safe for drinking.

PERFORMANCE IMPLICATIONS

NMSU submitted a number of performance measures for this project as part of the FY16 HED budget review process. The project could implement such measures and targets for FY16.

RELATIONSHIP

NMSU receives general fund appropriations for research and public service projects, like the one described in HB 233 though the clean drinking water technology proposal has yet to receive state support.

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

The university notes that its project team will seek funding from other sources, but that state support for the first phase of study and prototype refinement is critical to secure additional funding.

TH/bb/je