Navajo Nation Water Quality Interactive Web Map

Manideep Potluru, Daniel Beene

This web map leverages D3.js, dc.js, and Crossfilter.js to interpret, access, and visualize a comprehensive database of water quality at unregulated water sources on the Navajo Nation between the years 1933 and 2020. The Navajo Nation is home to multiple environmental contaminants stemming from a legacy of uranium mining and other resource extraction. This problem is compounded because roughly 20% of Navajo residents rely on unregulated water sources for daily consumption and use. The UNM METALS Superfund Research Program has compiled a water quality database using data from the Navajo EPA, USEPA, US Army Corps of Engineers, and the States of New Mexico, Arizona, and Utah. As of yet, there has not been any robust mechanism to disseminate and visualize this dataset. The web map platform will allow users to select contaminants of interest and will display graphics of data distributions and quality that are responsive to the extent of the map frame.