

Arsenic Adsorption and Desorption in Storrie Lake Sediments

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Purpose of the Study

Storrie Lake, near Las Vegas, New Mexico, is located within an area of the Gallinas Watershed that contains arsenic concentrations up to 10 ppm. The arsenic originates in the Permian and Cretaceous shales that underlie greater than 50% of the watershed. The researcher will conduct two experiments to investigate the exchange of arsenic between the water and sediment in the water at Storrie Lake as an indicator of potential arsenic contamination.

Study Underway

- Two studies will be conducted to determine the sediment's capacity for adsorption and desorption.
- Using GIS and GPS, the researcher will design a map of the study area, which will include vegetation, streams, lake area, and GPS coordinates of the sample collection area.

Benefits

- The City of Las Vegas may benefit from this study, because it will indicate whether Storrie Lake, a major drinking water source for the community, is contaminated with arsenic.



Above: Storrie Lake, located near Las Vegas, NM.
Right: Celestine Ngam at Storrie Lake. Celestine is from Cameroon, Central Africa, where he received a B.S. in environmental science at the University of Buea in 2003. After completing his M.S. in 2008, he plans to obtain a Ph.D. in public health.

