A STAR SOLUTION TO SAFE DRINKING WATER CHALLENGES ON NAVAJO AND HOPI RESERVATIONS

> Jing Luo, PhD, PE Vice President and Founder Apex Applied Technology, Inc. July 12, 2023

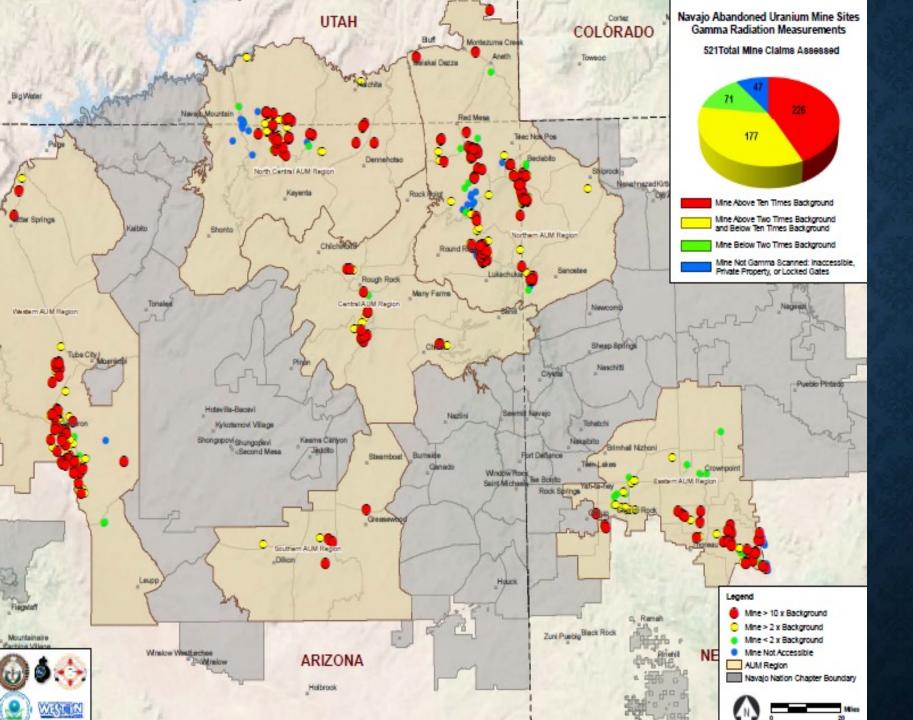
Imaging What it Looks Like to Live Without Running Water ...

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The Family Stores Their Water Supply in These Buckets Outside Their Hogan

Water is a Scarce Resource to Navajo People



Abandoned Uranium Mine Sites In Navajo Nation

People Drink Water from Unregulated Sources

Centralized vs. Decentralized Solutions

Farmington to Shiprock pipeline -\$56M

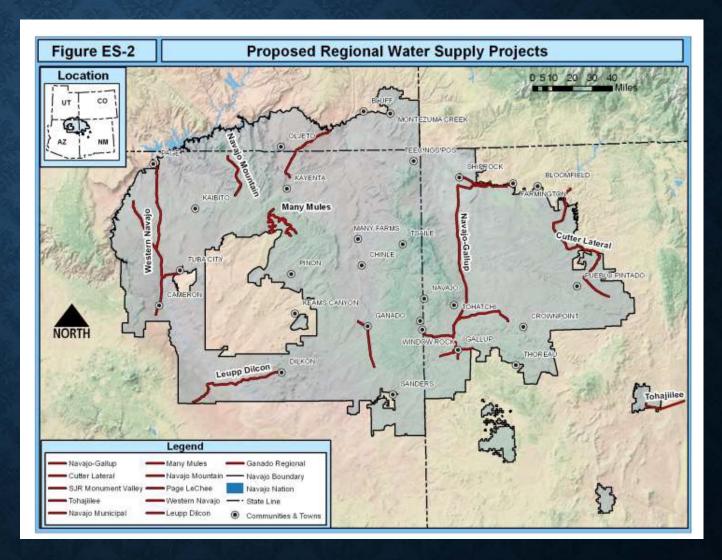
•Navajo Gallup Water Supply Project -\$865M

• Western Navajo Pipeline - \$515M

•C-Aquifer Ganado Groundwater Project - \$60M

•C-Aquifer Leupp to Dilkon Pipeline -\$110M.

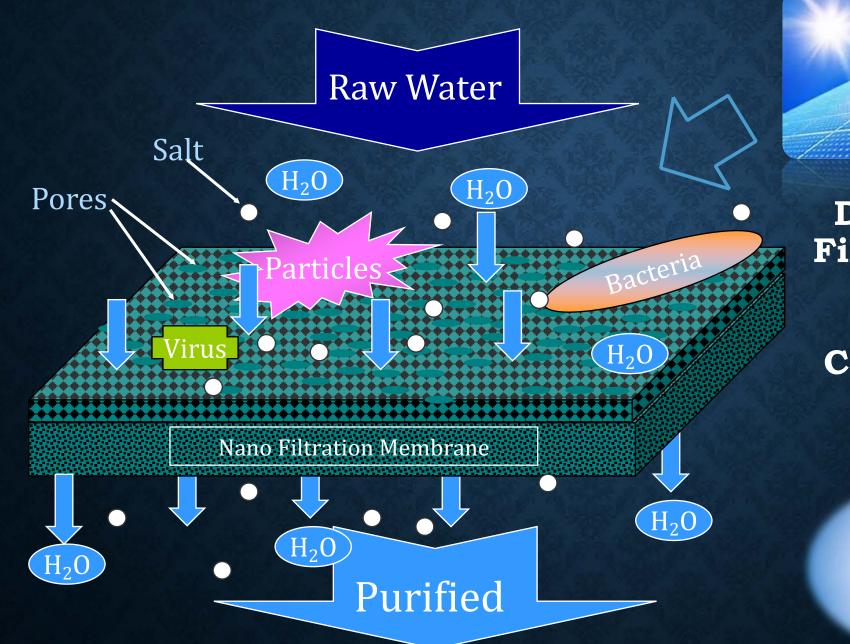
•Halchita to Kayenta San Juan River Water Supply Project - \$151M





The STAR School is an Award-winning Pre-k Through 8th Grade Public Charter School -- Primarily Serving Native American Students, Near Flagstaff And Leupp, AZ.

First Public Charter School in U.S. is 100% on Renewable Energy



We Took a Decentralized Nano Filtration Technology That is 100% Automatically Controlled and Solar Powered

The Water Bus !

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ERGENCY DOOR





STAR School Teacher Teaching Navajo Students Water Technologies in the Water Bus



Deploying the Water Treatment System (Water Box) to North Leupp Family Farms (NLFF)

Water Box Installed at NLFF

Happy Farmers at NLFF

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Water Box Installed in a Hopi Village - Sipaulovi

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WE A MINING

Water Box Installed on San Carlos Apache Reservation

Other Technology Assistance on Indian Reservations







Acknowledgement

- USDA Rural Development
- Painter Desert Demonstration Projects (d.b.a. the STAR School)
- The University of Arizona



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Thank You!