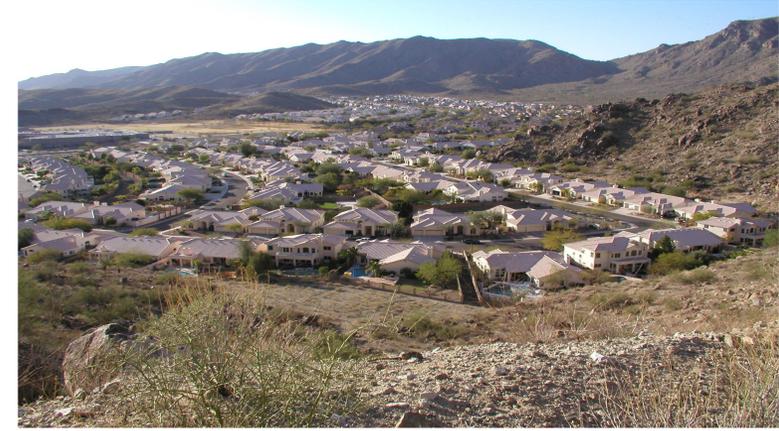




TESTING WATER QUALITY IN PHOENIX METROPOLITAN CITIES



Introduction:

Living in the city, we have access to clean filtered water, but once that runs out, what will we drink? Clean drinking water is a necessity and many countries today lack sanitized water. The purpose of this project was to analyze the surrounding areas of Phoenix and compare the water levels. I hypothesized the water would be drinkable at nearly safe levels.

Procedure:

1. Collect 6 different water samples
2. Kits tested for bacteria, lead, pesticides, nitrate, nitrite, pH, hardness, and chlorine
3. Using strips to test the quality of water to a colored numbered scale
4. Collect information onto data table

Conclusion:

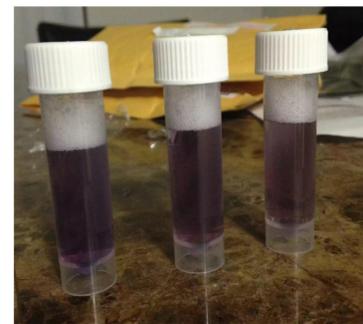
Based on the collected data, I conclude that my hypothesis is correct. The nearby cities are borderline safe. Results show that some pesticides were found in Gila River and Mesa. Salt River reached a high pH level, as well as all the cities which reached the guideline standards of hardness levels.

Water Location	Lead	Pesticide	Nitrate	Nitrite	pH	Hardness	Chlorine
Desired Values	Negative	Negative	Below 10 ppm	Below 1 ppm	6.5-8.5	50 ppm or less	Below 4 ppm
Phoenix	Negative	Negative	0 ppm	0 ppm	7.5	120 ppm	0 ppm
Ahwatukee	Negative	Negative	0 ppm	0 ppm	8	50 ppm	0 ppm
Gila River	Negative	Positive	10 ppm	0 ppm	7.5	250 ppm	0 ppm
Salt River	Negative	Negative	0 ppm	0 ppm	8.5	120 ppm	0 ppm
Tempe	Negative	Negative	0 ppm	0 ppm	6.5	250 ppm	0 ppm
Mesa	Negative	Positive	0 ppm	0 ppm	7	120 ppm	0 ppm



"Mother earth is important, you need to learn how to care for your land." -Mary Begay (Top Right)

"Know where you come from, get an education, and come back to help your home community." -Betty Redhair (Bottom Middle)



Testing (left to right) Ahwatukee, Phoenix, and Mesa with water softener at exactly 12 hours

Testing tubes cannot be moved or shaken due to intense fragility



Water samples taken from (left) a Salt River stream during September and (right) a Gila River water troff from Indian reservations.

Water is held sacred in both cultures and used in many different ceremonies.



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