

»» NEWSLETTER ««

# WATER MATTERS

The miracle of nature



## TOP NEWS OF THE MONTH

### DO YOU KNOW WHAT IS IN THE WATER SUPPLIED TO YOUR HOME?

### »»» THE TAP WATER CRISIS

If you were like me, 6 months ago I would have said I'm okay with drinking it. But then I found out that the federal legal limits for contaminants in tap water have not been updated in almost 20 years. One non-profit group that has become a watchdog for clean tap water is the Environmental Working Group (EWG). Their data is presented below for the largest utility serving Maricopa.

Contaminants Detected



19 Total Contaminants

- Legal does not necessarily equal safe. Getting a passing grade from the federal government does not mean the water meets the latest health guidelines.
- Legal limits for contaminants in tap water have not been updated in almost 20 years.
- The best way to ensure clean tap water is to keep pollution out of source water in the first place.



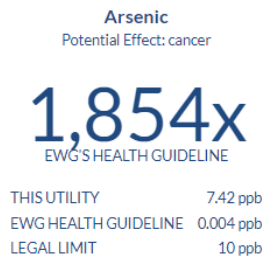
### HOW SAFE IS THE WATER IN MARICOPA? GLOBALWATER

# THE HEALTH IMPACT

## »»» SOURCE OF DATA: ENVIRONMENTAL WORKING GROUP (EWG)

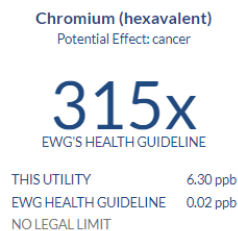
Source: <https://www.ewg.org/tapwater/system.php?pws=AZ0411131>

Utility data presented: Global Water - Santa Cruz Water Company



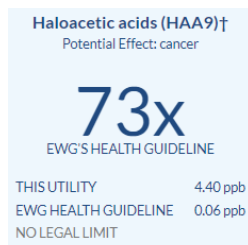
### Health Risks

Arsenic is a potent carcinogen and common contaminant in drinking water. Arsenic causes thousands of cases of cancer each year in the U.S. The EWG Health Guideline of 0.004 ppb for arsenic was defined by the California Office of Environmental Health Hazard Assessment as a public health goal, the level of a drinking water contaminant that does not pose a significant health risk. This health guideline protects against cancer.



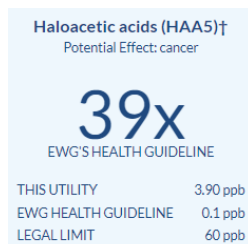
### Health Risks

Chromium (hexavalent) is a carcinogen that commonly contaminates American drinking water. Chromium (hexavalent) in drinking water may be due to industrial pollution or natural occurrences in mineral deposits and groundwater. The EWG Health Guideline of 0.02 ppb for chromium (hexavalent) was defined by the California Office of Environmental Health Hazard Assessment as a public health goal, the level of a drinking water contaminant that does not pose a significant health risk. This health guideline protects against cancer.



### Health Risks

Haloacetic acids are formed when disinfectants such as chlorine are added to tap water. The EWG Health Guideline of 0.06 ppb for the group of nine haloacetic acids, or HAA9, was defined in a peer-reviewed scientific study by EWG and represents a one-in-a-million lifetime cancer risk level as . This health guideline protects against cancer.



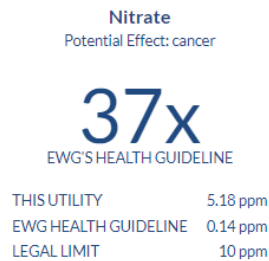
### Health Risks

Haloacetic acids are formed when disinfectants such as chlorine are added to tap water. The EWG Health Guideline of 0.1 ppb for the group of five haloacetic acids, or HAA5, was defined in a peer-reviewed scientific study by EWG and represents a one-in-a-million lifetime cancer risk level. This health guideline protects against cancer.

# THE HEALTH IMPACT

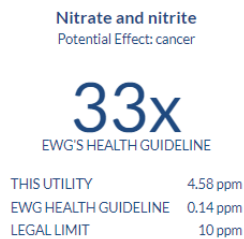
## »»» SOURCE OF DATA: ENVIRONMENTAL WORKING GROUP (EWG)

Source: <https://www.ewg.org/tapwater/system.php?pws=AZ0411131>



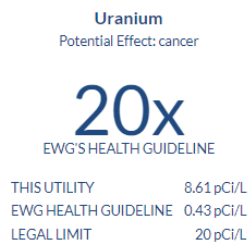
### Health Risks

Nitrate, a fertilizer chemical, frequently contaminates drinking water due to agricultural and urban runoff, and discharges from municipal wastewater treatment plants and septic tanks. Excessive nitrate in water can cause oxygen deprivation in infants and increase the risk of cancer. The EWG Health Guideline of 0.14 ppm for nitrate was defined by EWG. This health guideline protects against cancer and harm to fetal growth and development.



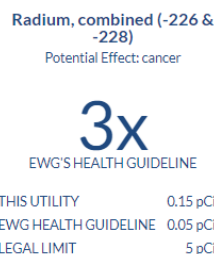
### Health Risks

Nitrate and nitrite enter water from fertilizer runoff, septic tanks and urban runoff. These contaminants can cause oxygen deprivation for infants and increase the risk of cancer. Nitrite is significantly more toxic than nitrate.



### Health Risks

Uranium is a known human carcinogen. The federal legal limit for uranium is set at 30 micrograms per liter (corresponding to parts per billion), but utilities can also report uranium in picocuries per liter (pCi/L), which is a measure of radioactivity in water. EWG translated all uranium results to pCi/L using a conversion factor developed by the EPA. With this conversion approach, the limit of 30 ppb corresponds to 20 pCi/L. Drinking water with this much uranium would cause more than 4.6 cancer cases in a population of 100,000.



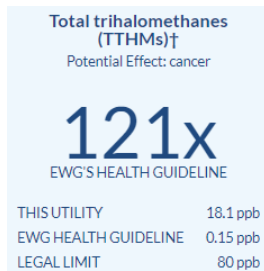
### Health Risks

Radium is a radioactive element that causes bone cancer and other cancers. It can occur naturally in groundwater, and oil and gas extraction activities such as hydraulic fracturing can elevate concentrations. EWG applied the health guideline of 0.05 pCi/L, defined by the California Office of Environmental Health Hazard Assessment as a public health goal for radium-226, to radium-226 and radium-228 combined.

# THE HEALTH IMPACT

## »»» SOURCE OF DATA: ENVIRONMENTAL WORKING GROUP (EWG)

Source: <https://www.ewg.org/tapwater/system.php?pws=AZ0411131>






### Health Risks

Trihalomethanes are cancer-causing contaminants that form during water treatment with chlorine and other disinfectants. The total trihalomethanes group includes four chemicals: chloroform, bromodichloromethane, dibromochloromethane and bromoform.

## »»» THE BEST METHOD FOR REMOVAL OF THESE 9 CONTAMINANTS

### Water Filters That Can Reduce Contaminant Levels

Contaminant	 ACTIVATED CARBON	 REVERSE OSMOSIS	 ION EXCHANGE
<b>CONTAMINANTS ABOVE HEALTH GUIDELINES</b>			
Arsenic		✓	✓
Chromium (hexavalent)		✓	✓
Haloacetic acids (HAA5)	✓	✓	
Haloacetic acids (HAA9)	✓	✓	
Nitrate		✓	✓
Nitrate & nitrite		✓	✓
Radium, combined (-226 & -228)		✓	✓
Total trihalomethanes (TTHMs)	✓	✓	
Uranium, combined (pCi/L)		✓	✓
<b>OTHER CONTAMINANTS DETECTED</b>			
Barium		✓	✓
Chlorate			
Chromium (total)		✓	✓
Fluoride		✓	
Germanium		✓	
Manganese			✓
Molybdenum		✓	✓
Selenium		✓	
Strontium		✓	✓
Vanadium			✓

# FIND OUT MORE

Go to <https://www.ewg.org/tapwater/> and enter your zip code. Then select the utility that provides you with your water. The data presented in this newsletter was for Global Water - The Santa Cruz Water Company which serves the largest population in Maricopa.

## ▶▶▶ OTHER UTILITIES IN THE MARICOPA AREA

### Additional Utilities in Your Area

Utility name	City	People served
Maricopa Mountain Domestic Water Improvement District 1	Maricopa, AZ	450
Maricopa Mountain Domestic Water Improvement District 2	Maricopa, AZ	120
Copper Mountain Ranch Cfd	Casa Grande, AZ	785
Valle Escondido Domestic Water Improvement District	Maricopa, AZ	405
Seven Ranch Domestic Water Improvement District	Maricopa, AZ	95
Maricopa Domestic Water Improvement District	Maricopa, AZ	1,028
Arizona Water Company - Stanfield	Phoenix, AZ	844

## ▶▶▶ COMING NEXT MONTH

We're going to start covering how water can be used to address health issues. We'll present the research findings of Dr. F. Batmanghelidj and review Tom Brady's system called TB12.

Both individuals stress the importance of hydration, good nutrition, and exercise as a way of preventing health issues and maintaining your body in peak condition.

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