

Maricopa

Domestic Water Improvement District

2016

Drinking Water Quality Report

Maricopa D.W.I.D

Public Water System Number AZ0411036

January 1, 2011 - December 31, 2016

**Five Year Monitoring Period and
Lab Sample Test Results**

Report Date: July 1, 2017

CONSUMER CONFIDENCE REPORT

Report Covers Calendar Year: January 1, 2016– December 31, 2016 _____

Este informe contiene información muy importante sobre el agua usted bebe. Tradúscalo ó hable con alguien que lo entienda bien.

I. Public Water System (PWS) Information

PWS Name:	Maricopa Domestic Water Improvement District					
PWS ID #	AZ04- 11-036					
Owner / Operator Name:	Maricopa Domestic Water Improvement District / Gilbert Sanchez					
Telephone #	520-251-1896	Fax #	520-568-2185	E-mail	gilbert.mdwid@hotmail.com	
We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact Sara Sheehan at 520-568-2239 for additional opportunity and meetings dates and times.						

II. Drinking Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Our water source(s):	Ground Water
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III. Consecutive Connection Sources

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table. PWS ID # AZ04 - 11-036 provides a consecutive connection source of water.

IV. Drinking Water Contaminants

Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

V. Vulnerable Population

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

VI. Source Water Assessment

ADEQ conducted a Source Water Assessment back in 2002 and this System has a low risk designation.

VII. Definitions

AL = Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
MCL = Maximum Contaminant Level - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water.
MCLG = Maximum Contaminant Level Goal - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health.
MFL = Million fibers per liter.
MRDL = Maximum Residual Disinfectant Level.
MRDLG = Maximum Residual Disinfectant Level Goal.
MREM = Millirems per year – a measure of radiation absorbed by the body.
NA = Not Applicable, sampling was not completed by regulation or was not required.
NTU = Nephelometric Turbidity Units, a measure of water clarity.
PCi/L = Picocuries per liter - picocuries per liter is a measure of the radioactivity in water.
PPM = Parts per million or Milligrams per liter (mg/L).
PPB = Parts per billion or Micrograms per liter (µg/L).
PPT = Parts per trillion or Nanograms per liter.
PPQ = Parts per quadrillion or Picograms per liter.
TT = Treatment Technique - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

ppm x 1000 = ppb
ppb x 1000 = ppt
ppt x 1000 = ppq

VIII. Health Effects Language

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your

IX. Water Quality Data

Microbiological	Violation Y or N	Number of Samples Present OR Highest Level Detected	Absent (A) or Present (P) OR Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Total Coliform Bacteria (System takes ≥ 40 monthly samples) 5% of monthly samples are positive; (System takes ≤ 40 monthly samples) 1 positive monthly sample	No	0	Absent	0	0	Jan. - Dec. 2016	Naturally Present in Environment
Fecal coliform and E. Coli (TC Rule)	No	0	Absent	0	0	Jan. - Dec. 2016	Human and animal fecal waste
Fecal Indicators (E. coli, enterococci or coliphage) (GW Rule)	No	N/A	N/A	TT	n/a	N/A	Human and animal fecal waste
Total Organic Carbon (ppm)				TT	n/a		Naturally present in the environment
Turbidity (NTU), surface water only				TT	n/a		Soil Runoff
Disinfectants	Violation Y or N	Running Annual Average (RAA)	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Chloramines (ppm)				MRDL = 4	MRDLG = 4		Water additive used to control microbes
Chlorine (ppm)	No	1.0083	0.4 – 1.5	MRDL = 4	MRDLG = 4	Jan. – Dec. 2016	Water additive used to control microbes
Chloride dioxide (ppb)				MRDL = 800	MRDLG = 800		Water additive used to control microbes
Disinfection By-Products	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Haloacetic Acids (ppb) (HAA5)	No	1.4	1.4 – 1.4	60	n/a	2016	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	No	3.5	3.5 – 3.5	80	n/a	2016	Byproduct of drinking water disinfection
Bromate (ppb)				10	0		Byproduct of drinking water disinfection
Chlorite (ppm)				1	0.8		Byproduct of drinking water disinfection
Lead & Copper	Violation Y or N	90 th Percentile AND Number of Samples Over the AL	Range of All Samples (L-H)	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	No	90 th Percentile = 1.3	0.0054 - 0.15	AL = 1.3	ALG = 1.3	2016	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	No	90 th Percentile = 15	0.0012-0.0021	AL = 15	0	2016	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Beta / photon emitters (mrem/yr)				4	0		Decay of natural and man-made deposits
Alpha emitters (pCi/L)	No	9.0 +- 0.6	9.0 +- 0.6	15	0	Oct. 2016	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	No	0.7	0.7	5	0	Oct. 2016	Erosion of natural deposits
Uranium (pCi/L)				30	0		Erosion of natural deposits

Inorganic Chemicals (IOC)	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Antimony (ppb)	No	< 0.001	< 0.001	6	6	Oct. 2016	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic (ppb)	No	7	4.4 – 7.3	10	0	2016	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	No	< 0.2	< 0.2	7	7	Oct. 2016	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	No	0.089	0.089	2	2	Oct. 2016	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	No	< 0.001	< 0.001	4	4	Oct. 2016	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	No	< 0.0005	< 0.0005	5	5	Oct. 2016	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	No	0.0048	0.0048	100	100	Oct. 2016	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	No	< 0.025	< 0.025	200	200	Oct. 2016	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	No	2.2	2.2	4	4	Oct. 2016	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	No	< 0.0002	< 0.0002	2	2	Oct. 2016	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate (ppm)	No	6	4.6 - 5.9	10	10	Oct. 2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)				1	1		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	No	< 0.005	< 0.005	50	50	Oct. 2016	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	No	< 0.001	< 0.001	2	0.5	Oct. 2016	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Synthetic Organic Chemicals (SOC)	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
2,4-D (ppb)				70	70		Runoff from herbicide used on row crops
2,4,5-TP (Silvex) (ppb)				50	50		Residue of banned herbicide
Acrylamide				TT	0		Added to water during sewage / wastewater treatment
Alachlor (ppb)	No	< 0.0005	< 0.0005	2	0	Oct. 2016	Runoff from herbicide used on row crops
Atrazine (ppb)				3	3		Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)				200	0		Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)				40	40		Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	No	< 0.0001	< 0.0001	2	0	Oct. 2016	Residue of banned termiticide
Dalapon (ppb)				200	200		Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate (ppb)				400	400		Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)				6	0		Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	No	< 0.0001	< 0.0001	200	0	Oct. 2016	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)				7	7		Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)				20	20		Runoff from herbicide use
Dioxin [2,3,7,8-TCDD] (ppq)				30	0		Emissions from waste incineration and other combustion; discharge from chemical factories
Epdothall (ppb)				100	100		Runoff from herbicide use
Endrin (ppb)	No	< 0.00001	< 0.00001	2	2	Oct. 2016	Residue of banned insecticide
Epichlorohydrin				TT	0		Discharge from industrial chemical factories: an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	No	< 0.0001	< 0.0001	50	0	Oct. 2016	Discharge from petroleum refineries
Glyphosate (ppb)				700	700		Runoff from herbicide use
Heptachlor (ppt)	No	< 0.0001	< 0.0001	400	0	Oct. 2016	Residue of banned termiticide
Heptachlor epoxide (ppt)	No	< 0.0001	< 0.0001	200	0	Oct. 2016	Breakdown of heptachlor
Hexachlorobenzene (ppb)				1	0		Discharge from metal refineries and

							agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)				50	50		Discharge from chemical factories
Lindane (ppt)	No	< 0.0001	< 0.0001	200	200	Oct. 2016	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	No	< 0.00005	< 0.00005	40	40	Oct. 2016	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate] (ppb)				200	200		Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)				500	0		Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)				1	0		Discharge from wood preserving factories
Picloram (ppb)				500	500		Herbicide runoff
Simazine (ppb)				4	4		Herbicide runoff
Toxaphene (ppb)				3	0		Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Chemicals (VOC)	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (L-H)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Benzene (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	No	< 0.0005	< 0.0005	100	100	Oct. 2016	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	No	< 0.0005	< 0.0005	600	600	Oct. 2016	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	No	< 0.0005	< 0.0005	75	75	Oct. 2016	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	No	< 0.0005	< 0.0005	7	7	Oct. 2016	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	No	< 0.0005	< 0.0005	70	70	Oct. 2016	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	No	< 0.0005	< 0.0005	100	100	Oct. 2016	Discharge from industrial chemical factories
Dichloromethane (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from pharmaceutical and chemical factories

1,2-Dichloropropane (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from industrial chemical factories
Ethylbenzene (ppb)	No	< 0.0005	< 0.0005	700	700	Oct. 2016	Discharge from petroleum refineries
Styrene (ppb)	No	< 0.0005	< 0.0005	100	100	Oct. 2016	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	No	< 0.0005	< 0.0005	70	70	Oct. 2016	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	No	< 0.0005	< 0.0005	200	200	Oct. 2016	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	No	< 0.0005	< 0.0005	5	3	Oct. 2016	Discharge from industrial chemical factories
Trichloroethylene (ppb)	No	< 0.0005	< 0.0005	5	0	Oct. 2016	Discharge from metal degreasing sites and other factories
Toluene (ppm)	No	< 0.0005	< 0.0005	1	1	Oct. 2016	Discharge from petroleum factories
Vinyl Chloride (ppb)	No	< 0.0005	< 0.0005	2	0	Oct. 2016	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	No	< 0.0005	< 0.0005	10	10	Oct. 2016	Discharge from petroleum or chemical factories

X. Cryptosporidium Monitoring (surface water systems only)

We detected *Cryptosporidium* in the finished water or source water. We detected *Cryptosporidium* in _____ of our _____ samples tested.

We have to provide additional treatment if *Cryptosporidium* is found at greater than 0.075 oocyst per liter.

We believe it is important for you to know that *Cryptosporidium* may cause serious illness in immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders. These people should seek advice from their health care providers.

XI. Stage 2 Disinfectants and Disinfection By-Products Rule

Stage 2 DBP Rule required some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBP Rule compliance. The following table summarizes the individual sample results for the IDSE standard monitoring performed in <year>

Contaminant	Number of Analyses	Minimum Level Detected	Highest Level Detected
Haloacetic Acids (HAA5) (ppb)	1	1.4	1.4
Total Trihalomethanes (TTHM) (ppb)	1	3.5	3.5

XII. Violations

Type / Description	Compliance Period	Corrective Actions taken by PWS
Total Coliform missed Monitoring	November - 2016	It was an error on the chain of custody form. I wrote the two samples down on the same line. Test America put it down as a duplicate sample. I will make sure I separate the samples for future sampling.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

An explanation of the violation(s) in the above table, the steps taken to resolve the violation(s) and any required health effects information are required to be included with this report. (Attach copy of Public Notice if available.)



**2016__ Annual Consumer Confidence Report Mailing Waiver
(For Community Water Systems Serving < 10,000 People)**

Public Water System Name: Maricopa DWID

Public Water System Number: 11-036

As outlined in Title 40, Code of Federal Regulations (CFR) § 141.155, as incorporated by reference in the Arizona Administrative Code R18-4-117, the Public Water System (PWS) named above hereby confirms that its Consumer Confidence Report (CCR) has been distributed to its customers. The PWS also certifies that the information contained in the CCR is correct and consistent with the compliance monitoring data previously submitted to the Arizona Department of Environmental Quality.

All community water systems must mail or otherwise direct deliver one copy of the report to each customer (defined as billing units or service connections) (use CCR Certification Form), except for systems serving < 10,000 people that may opt to meet the delivery requirements via the State of Arizona's CCR Waiver instead (use this Form).

Requirements for Community Water Systems Serving > 500 and < 10,000 Persons:

[X] The PWS Certifies That All of the Following Were Performed:

- Inform customers it will not be providing copies of the CCR by mail or other direct delivery methods; and
- Publish the entire report annually in one (or more) local newspaper or other news media serving areas in which the system's customers are located; and
- Make copies of the CCR available to the public upon request; and
- Keep copies available for a period of three (3) years.

Requirements for Community Water Systems Serving ≤ 500 Persons:

[] The PWS Certifies That All of the Following Were Performed:

- Inform customers it will not be providing copies of the CCR by mail or other direct delivery methods; and
- Make copies of the CCR available to the public upon request; and
- Keep copies available for a period of three (3) years.

Certified by:

Name & Signature: Gilbert Sanchez,

Title: Field Operations Manager

Phone #: 520-568-2239

Date: June 12, 2017

