PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

PALMDALE WATER DISTRICT 2017 CONSUMER CONFIDENCE REPORT

Our mission is to provide high-quality water to our current and future customers at a reasonable cost.

Questions or comments on the contents of this report are encouraged. Please contact: Operations Manager Mynor Masaya at 661-947-4111 x1185 or Water Quality & Regulatory Affairs Supervisor Amanda Thompson at 661-947-4111 x1178, Monday through Friday, 7:00 a.m. to 4:30 p.m.

Attencion Residentes!
Que no hablan Ingles: Este informe contiene información muy importante sobre su agua potable. Para recibir una versión en inglés o más información sobre este informe, llame a la oficina de PWD al 661-947-4111.



State of Our Water

It is with true pride that Palmdale Water District (PWD) is celebrating 100 years of providing high-quality water at an affordable cost to our community. PWD has grown exponentially since its inception in 1918 when agricultural farmland was the primary customer. Today, we serve more than 115,000 individuals, who rely on us to ensure that the water they receive in their homes and businesses is safe, clean and reliable.

California's water issues are complex, and competition for this precious, finite natural resource will only increase in coming years. Like we have done for 100 years, PWD continues to plan for the future to ensure that our community's water supply is properly managed so that long-term water needs will be met.

As we move forward toward our second century of service, the PWD Board members and staff are committed to keep providing you with the best customer care, lowest rates possible and conservation practices to save money.

The Board works very closely with staff to plan and execute short- and long-term goals to make sure that our water supply and reliability is solid for our existing and future customers.

Thank you for being an important part of our first 100 years of service. We look forward to another century of providing you with clean and affordable water!

Vincent Dino (PWD Board President)

Dennis D. LaMoreaux (PWD General Manager)

The Palmdale Water District is proud to announce 100% regulatory compliance in 2017 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of 2017's water quality and will provide you with a better understanding of the quality of your drinking water. This Report includes details about where your water comes from, what it contains, and how it compares to Drinking Water standards. We are committed to providing you with this information because informed customers are our best allies. Stringent water quality testing is performed before the water is delivered to consumers. Last year, PWD tested more than 3,000 samples for over 80 regulated contaminants. Only 8 primary standard contaminants were detected in 2017, and all were at levels below the Maximum Contaminant Level allowed by the State. Please take the time to review this Consumer Confidence Report and Water Quality Data Chart to become an informed consumer. The Water Quality Data Chart is divided into two standards – Primary and Secondary. Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time.

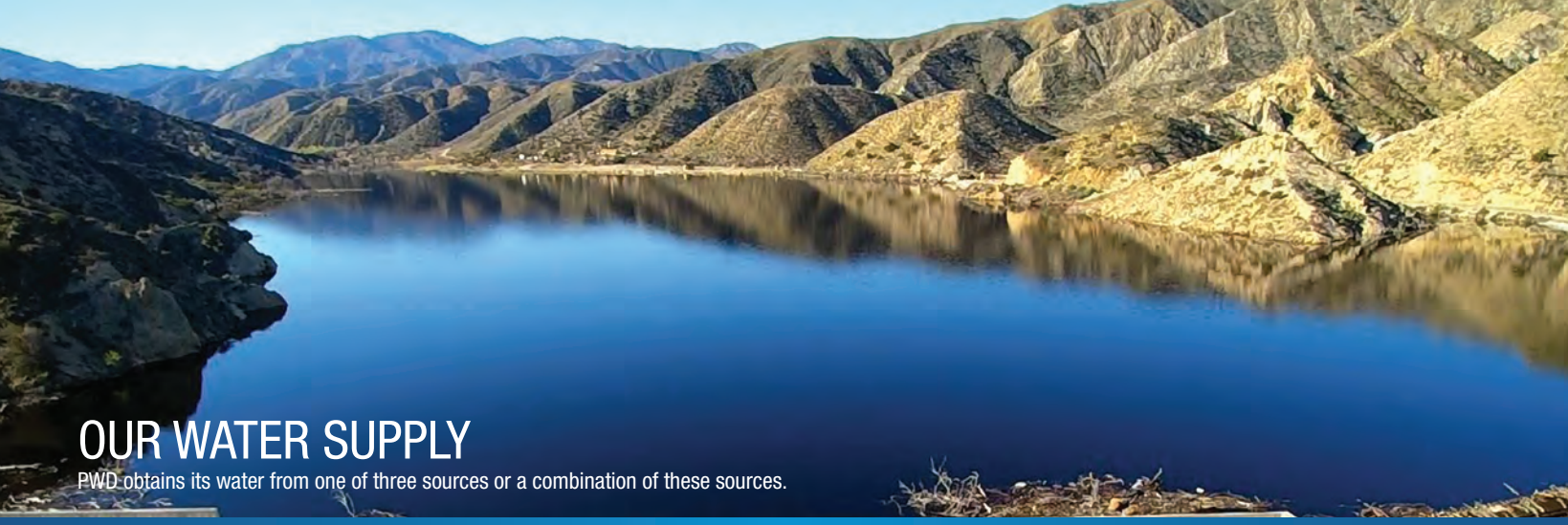
Secondary standards govern aesthetic qualities of water such as taste, mineral content, odor, color, and turbidity. Please call 661-947-4111 x1178 or x1185 with any questions.

Last year, PWD tested more than 3,000 samples for over 80 regulated contaminants.

We welcome your views:

- Attend Board of Directors' meetings the second and fourth Monday of each month. Board meetings start at 6:00 p.m. and are held at the PWD office, 2029 East Avenue Q, Palmdale.
- Call 661-947-4111 with questions about PWD or to file a water quality complaint.
- Call 661-947-4111 x1042 or x1001 for information on water conservation or water education.

Visit our website at www.palmdalewater.org.



OUR WATER SUPPLY

PWD obtains its water from one of three sources or a combination of these sources.

The first source is surface water from the State Water Project (SWP/CA Aqueduct).

This water source begins in Northern California, flows into the Delta near Sacramento, and is pumped traveling south to Lake Palmdale. PWD is entitled to take a maximum of 21,300 acre-feet (or 6.9 billion gallons of water) per year. Based on the amount of rain & snowfall in the Sierra Nevada Mountains and the amount of water stored in northern California reservoirs, PWD is granted a percentage of the annual entitlement. In 2017, PWD received 13,842 acre-feet from the SWP. The water is drawn from the SWP aqueduct and stored in Lake Palmdale prior to treatment.

The second source of surface water is from the reservoir created by Littlerock Dam.

Littlerock Dam was originally built in 1924 and, in 1994, it was renovated to strengthen the dam and increase the reservoir capacity to 3,500 acre-feet, or 1.1 billion gallons of water. In 2017, PWD diverted 965 acre-feet from this source. Littlerock Dam Reservoir is fed by natural run-off from snow packs in the local San Gabriel Mountains and from rainfall. The water is then transferred from Littlerock Reservoir to Lake Palmdale through a ditch connecting the two reservoirs for storage prior to treatment.

The third source of water for PWD customers is groundwater.

Groundwater is pumped from the Antelope Valley groundwater basin through 23 wells. In 2017, PWD pumped 4,355 acre-feet from 22 of these wells. This water is treated with chlorine and pumped directly into the distribution system.

All three sources are constantly tested and treated in compliance with all applicable regulations to ensure high water quality and dependability of the water system. The Palmdale Water District delivered approximately 77% surface water and 23% groundwater to its consumers in 2017.

SOURCES OF DRINKING WATER

The sources of drinking water, both tap and bottled, 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.

Contaminants that may be present in source water include:

- 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, that can be naturally occurring or result from urban storm-water 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 storm-water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking Water Source Assessment and Protection Program:

Palmdale Water District's Sanitary Survey, including a Source Water Assessment of surface waters, was updated in 2017 in compliance with State of California regulations. The assessment of surface water sources included Littlerock Reservoir and Lake Palmdale. A Groundwater Assessment and Protection Program was completed in January of 1999, and a Wellhead Protection Plan was completed in November 2000.

PWD's drinking water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: illegal activities, such as unauthorized dumping; recreation; highways; railroads; and sewer collection systems.

A comprehensive source water protection program can prevent contaminants from entering the public water supply, reduce treatment costs, and increase public confidence in the quality, reliability and safety of drinking water.

You can help prevent water contamination and pollution by properly disposing of trash and waste materials.

Remember, many common household products can contaminate surface and groundwater supplies. Anything you throw in the trash, dump on the ground, pour down the drain, or wash down the driveway can eventually reach water sources and cause contamination.

The Sanitary Survey, Source Water Assessment, Groundwater Assessment, and Wellhead Protection Plan are available for review on PWD's website (palmdalewater.org) or at the District's office by calling Peter K. Thompson Jr. at 661-947-4111 x1042.

THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2017 CALENDAR YEAR.
The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. PWD tests for many contaminants in addition to those listed in the chart. Test results for these additional contaminants were all "None Detected (ND)" and are not required to be included in the chart. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative of the water quality, is more than 1 year old. Unless otherwise noted, the data presented in this chart is from testing performed January 1 to December 31, 2017. Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Parameter Primary Standards	MCL or MRDL (units)	Meets Standard?	DLR	Sample Frequency* Surface Water/ Groundwater	Treated Surface Water		*Groundwater Sampled in 2016		EPA (MCLG) PHG or [MRDLG]	Typical Source of Contaminant
					Range	Sampled 1/26/2017 or Average Effluent	Range	Average		
Turbidity (Water Clarity)	TT = 1 NTU TT = 95% of monthly samples ≤0.3 NTU	Y	NA	Continuous/Once in 3 yrs.	0.04 - 0.15 100%	0.08 100%	0.06 - 0.62 NA	0.12 NA	NA	Soil Runoff
Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system. Treated Surface Water Range and Average are of Daily Maximum.										
Dist. System Microbiological										
Total Coliform Bacteria (Total Coliform Rule)	For systems that collect less than 40 samples per month: More than 1 positive sample. For systems that collect 40 or more samples per month: No more than 5.0% of monthly samples are positive	Y	NA	Weekly	NA	0%	NA	NA	(0)	Naturally present in the environment
E. coli (Federal Groundwater Rule)	0	Y	NA	Weekly	NA	0	NA	0	(0)	Human and animal fecal waste
Organic Chemicals										
Disinfection By-products										
					Stage 2 D/DBP					
					All Sample Range	Highest LRAA				
TTHMs	80 µg/L	Y	NA	Monthly/NA	0.7 - 88	62	NA	NA	NA	By-product of drinking water disinfection
HAA5	60 µg/L	Y	NA	Quarterly/NA	ND - 12	8.5				
Disinfectant Residual										
					System RAA from Dist. Syst.					
Chlorine Residual	4.0 (mg/L as Cl2)	Y	NA	Weekly/NA	0.20 - 1.87	0.94	NA	NA	[4]	Drinking water disinfectant added for treatment
Disinfectant By-product Precursors										
Control of DBP Precursor (Total Organic Carbon, TOC) - see explanation on the next page	TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1	Y	1	Monthly/NA	2.52 - 3.09	2.79	NA	NA	NA	Various natural and manmade sources
Total Organic Carbon	Reported as mg/L		0.3		0.8 - 1.3	1.0				
Inorganic Chemicals										
Arsenic	10 µg/L	Y	2	Yearly/Once in 3 yrs.	NA	ND	ND - 2.3	ND	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride	2 mg/L	Y	0.1	Quarterly/Quarterly	ND - 0.14	ND	ND - 0.58	0.18	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as nitrogen)	10 mg/L	Y	0.4	Quarterly/Quarterly	NA	ND	ND - 6.7	1.4	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Hexavalent Chromium	10 µg/L	Y	1	Quarterly/Quarterly	NA	ND	ND - 8.5	3.8	0.02	Steel and pulp mill discharges, chrome plating, natural erosion
Radioactivity										
Gross Alpha Activity**	15 pCi/L	Y	3	**See comment below	NA	ND	ND - 5.7	ND	(0)	Erosion of natural deposits
Uranium***	20 pCi/L	Y	1	NA/Quarterly	NA	ND	NA	1.1	0.43	

Tap Monitoring Lead & Copper	Action Level	Meets Standard?	DLR	No. of samples in 2015	90th Percentile	No. sites exceeded AL	No. of Schools requesting lead sampling	EPA (MCLG) PHG or [MRDLG]	Typical Source of Contaminant
Lead	15 µg/L	Y	5	50	ND	NONE	NONE	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	1.3 mg/L	Y	0.05	50	0.370	NONE	NA	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Parameter Secondary Standards	MCL or MRDL (units)	Meets Standard?	DLR	Sample Frequency* Surface Water/ Groundwater	Treated Surface Water		*Groundwater Sampled in 2016		EPA (MCLG) PHG or [MRDLG]	Typical Source of Contaminant
					Range	Sampled 1/26/2017 or Average Effluent	Range	Average		
Color	15 units	Y	NA	Weekly/Once in 3 yrs.	NA	ND	NA	ND	NA	Naturally occurring organic materials
Odor-Threshold	3 units	Y	1	Weekly/Once in 3 yrs.	NA	1.0	ND - 1.0	ND	NA	
Chloride	500 mg/L	Y	NA	Quarterly/Quarterly	59 - 140	97	6 - 103	24	NA	Runoff/leaching from natural deposits; seawater influence
Sulfate	500 mg/L	Y	0.5	Quarterly/Quarterly	15 - 58	41	16 - 145	36	NA	Runoff/leaching of natural deposits; industrial wastes
Total Dissolved Solids	1000 mg/L	Y	NA	Yearly/Once in 3 yrs.	NA	430	140 - 550	246	NA	Runoff/leaching of natural deposits
Specific Conductance	1600 µmhos/cm	Y	NA	Yearly/Once in 3 yrs.	NA	680	250 - 900	406	NA	Substances that form ions when in water; seawater influence
Additional Constituents Analyzed										
pH	NA (Units)	NA	NA	Continuous/Once in 3 yrs.	6.7 - 7.6	7.0	7.9 - 8.4	8.1	NA	Leaching from natural deposits
Hardness	NA (mg/L)	NA	NA	Weekly/Once in 3 yrs.	66 - 150	103	24 - 240	122	NA	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occuring.
Alkalinity	NA (mg/L)	NA	NA	Weekly/Once in 3 yrs.	33 - 75	53	79 - 200	117	NA	Dissolved as water passes through limestone deposits
Calcium	NA (mg/L)	NA	NA	Yearly/Once in 3 yrs.	NA	29	8 - 75	38	NA	
Sodium	NA (mg/L)	NA	NA	Yearly/Once in 3 yrs.	NA	79	17 - 80	36	NA	Generally naturally-occurring salt present in water
Potassium	NA (mg/L)	NA	NA	Yearly/Once in 3 yrs.	NA	3.5	ND - 3.0	1.6	NA	Leaching from natural deposits
Magnesium	NA (mg/L)	NA	NA	Yearly/Once in 3 yrs.	NA	14	0.7 - 16	6.8	NA	Dissolved as water passes through magnesium-bearing minerals
Special Testing										
UCMR 3 (Sampled in 2015)					Effluent & Dist. System		Groundwater			Environmental Source
Molybdenum	NA (µg/L)	NA	1.0	Special	2.9 - 4.4	3.4	ND - 2.0	1.6	NA	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	NA (µg/L)	NA	0.30	Special	320 - 440	391	140 - 510	373	NA	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	NL = 50 ug/L	Y	0.20	Special	ND - 22	6.6	7.1 - 31	17	NA	Leaching from natural deposits, steel manufacturing, hazardous waste sites
Chromium (total)	50 µg/L	Y	0.20	Special	ND - 5.8	1.9	1.3 - 6.9	4.0	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Chromium -6	10 µg/L	Y	0.03	Special	0.09 - 5.9	1.9	1.3 - 7.7	4.2	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Chlorate	NA (µg/L)	NA	20	Special	120 - 310	215	ND - 200	101	NA	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide
Bromochloromethane	NA (µg/L)	NA	0.06	Special	0.086 - 0.28	0.18	NA	ND	NA	Used as a fire-extinguishing fluid, an explosive suppressant, and as a solvent in the manufacturing of pesticides

* Wells are sampled once/3 yrs. except for Fluoride, Chloride, Sulfate, & Nitrate, which are sampled quarterly. ** Sampled between 2010 and 2017. Individual sites are sampled once/6 yrs. or once/9 yrs. Range is from individual sample results.
*** Sample collected only when quarterly average of Gross Alpha exceeds 5pCi/L.

Lead and Copper:

Palmdale Water District is required to draw new sample sets of tap samples for lead and copper every 3 years. The last samples taken were in 2015 (50 samples). The 90th percentile results of none-detected for lead and 0.370 ppm for copper are well within the AL of 15 ppb lead and the AL of 1.3 ppm for copper. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. PWD is responsible for providing high-quality drinking water, but is unable to control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.]

If you are concerned about lead in your drinking water, you can have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/lead.

Health Effects of Lead: Infants and children who drink water containing lead in excess of the action level may experience delays in their physical and mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Health Effects of Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

DEFINITIONS:

The following definitions of key terms are provided to help you understand the data used in this report.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by OEHHA (Office of Environmental Health Hazard Assessment) a division of the California Environmental Protection Agency (CEPA).

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Running Annual Average (RAA): The running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected.

Detection Limit for purposes of Reporting (DLR): The designated minimum level at or above which any analytical finding of a contaminant in drinking water shall be reported to the Department of Public Health.

Unregulated Contaminant Monitoring (UCMR): Unregulated contaminant monitoring helps USEPA and the California Department of Public Health to determine where certain contaminants occur and whether the contaminants need to be regulated.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL) or Notification Level (NL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Secondary Drinking Water Standard (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL level.

Counting Error: The 95% confidence level for the radioactivity analysis.

ABBREVIATIONS USED IN 2017 WATER QUALITY DATA CHART:

ND: Not detectable or None detected at testing limit (DLR)

NA: Not Applicable

Nreg: No regulation

< Less Than

> Greater Than

pCi/L: picocuries per liter (a measure of radiation)

DBP: Disinfection By-products

Comparison examples are provided for the following measurements to help you better understand the amount of chemical contaminants detected in the water. This does not mean that the amounts are not significant regarding risk of health effects for specific contaminants.

ppm: parts per million or milligrams per liter (mg/L) = qualitatively, approximately 1 drop in 10 gals.

ppb: parts per billion or micrograms per liter (µg/L) = qualitatively, approximately 1 drop in 10,000 gals.

ppt: parts per trillion or nanograms per liter (ng/L) = qualitatively, approximately 1 drop in 100,000 gals.

µmhos/cm: micromhos per centimeter (a measure for conductivity)

EDUCATIONAL INFORMATION AND POSSIBLE DRINKING WATER CONTAMINANTS:

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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline 1-800-426-4791. 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 from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791. PWD tested for *Cryptosporidium* and *Giardia* monthly from January through April in 2017 and results were None Detected (ND).

TOTAL TRIHALOMETHANES (TTHMS): Total Trihalomethanes (TTHMs) are the total of four trihalomethanes of concern in drinking water: chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. In the Primary Standards Disinfection Byproducts section of the Water Quality Chart under highest LRAA from Distribution System, the highest Locational Running Annual Average (LRAA) for 2017 is 62 µg/L, which is less than and complies with the Federal TTHM MCL of 80 µg/L. The range of monthly sample results from all 8 sampling points in 2017 is 0.7 – 88 µg/L, indicating that certain sampling points or specific locations within the customer service area have exceeded 80 µg/L. These samples were taken from dedicated sample points within the distribution system and are representative of maximum residence time in the system.

Health effects of Total Trihalomethanes (TTHMs): Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems and may have an increased risk of getting cancer.

TOTAL ORGANIC CARBON (TOC): Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. TOC result is based on quarterly RAA of percent removal ratio. Paired samples (one from source and the other from treated water) are collected monthly. The percent removal between source water and treated water is divided by the required monthly TOC percent removal based on certain criteria that all public water systems must follow. The quarterly RAA of these monthly results should be 1.0 or higher. Our quarterly RAA in 2017 ranged from 2.52 to 3.09 and averaged 2.79. Individual TOC sample results for treated water ranged from 0.8 to 1.3 mg/L and averaged 1.0 mg/L.

FLUORIDE: Fluoride in the treated surface water ranged from ND to 0.14 mg/L and on average None Detected (ND). The groundwater samples ranged from ND to 0.58 mg/L and averaged 0.18 mg/L. The fluoride MCL is 2 mg/L and the DLR is 0.1 mg/L.

Health effects of Fluoride: Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

NITRATE: In the Primary Standards Inorganic Chemicals section of the chart for Nitrate (as Nitrogen), treated surface water sample is None Detected (ND). In the groundwater column, the range of Nitrate (as Nitrogen) is ND to 6.7 mg/L, and the average is 1.4 mg/L. The State Water Resources Control Board requires annual sampling if all results are less than 50% of the MCL. If the result from any one source is greater than 50% of the MCL, then sampling must be done quarterly at that source. PWD samples all its wells on a quarterly basis (4 times a year) even when they test below 50% of the MCL. The numbers expressed on the chart are derived from quarterly sampling of all PWD wells, except those that are out of service.

Health effects of Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness with symptoms including shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

GROSS ALPHA PARTICLE ACTIVITY: In 2016, 4 out of the 22 wells in service were sampled for Gross Alpha. Well 19 = 5.0 pCi/L, Well 22 = None Detected (ND), Well 26 = None Detected (ND) and Well 29 = 3.2 pCi/L. The remaining water sources will be monitored in the future during this compliance cycle.

Health effects of Gross Alpha Particle Activity: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

HEXAVALENT CHROMIUM: In the Primary Standards Inorganic Chemicals section of the chart for Hexavalent Chromium, the treated surface water sample is None Detected (ND). For groundwater samples (22 wells in service), the range of all quarterly sample results is None Detected (ND) to 8.5 µg/L and the average is 3.8 µg/L. The highest Running Annual Average (RAA) for treated surface water and groundwater is None Detected (ND) and 8.1 µg/L, respectively. There is currently no MCL for hexavalent chromium. The previous MCL of 10 µg/L was withdrawn on September 11, 2017.

Health effects of Hexavalent Chromium: Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.