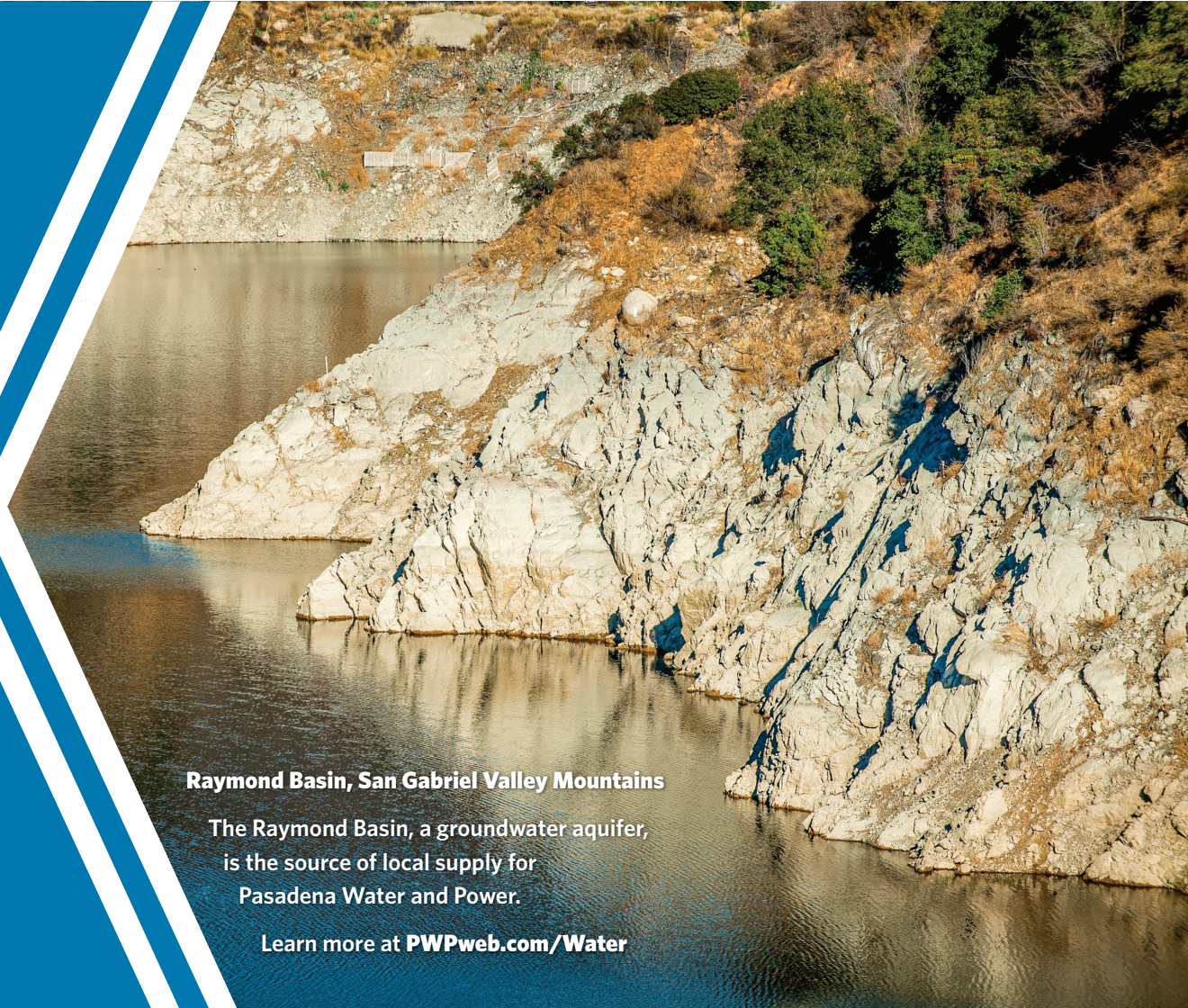




P A S A D E N A
Water&Power
SERVING THE COMMUNITY SINCE 1906



Raymond Basin, San Gabriel Valley Mountains

The Raymond Basin, a groundwater aquifer,
is the source of local supply for
Pasadena Water and Power.

Learn more at PWPweb.com/Water

2019 Consumer Confidence Report

On Water Quality

Message from the General Manager

Pasadena Water and Power (PWP) is pleased to present the **2019 Consumer Confidence Report on Water Quality** and inform you that Pasadena's tap water is monitored daily and assessed by the standards established by the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW).

PWP's mission continues to be about providing safe, healthy drinking water while preserving environmental vitality, planning for future generations and maintaining public confidence. Our Water Quality Laboratory is state-certified, and monitors the water system every day, drawing samples from 200 locations throughout Pasadena to test for more than 170 constituents, ensuring that high standards are maintained.

Our community uses approximately 26 million gallons of water each day, and it is the responsibility of PWP to ensure



Gurcharan Bawa
General Manager

that Pasadena has a sufficient, safe and high quality water supply. Pasadena receives water from two types of sources: Local groundwater in the Raymond Basin aquifer, and imported water from the Colorado River and Sacramento Delta. Over the past year, PWP has been focused on identifying capital investments that will improve and create infrastructure necessary to capture more local water, and use it more efficiently throughout the city. These efforts are also outlined in the new Water System and Resources Plan, which will guide

PWP in the coming years to ensure local water reliance.

This report is provided annually and includes information about your drinking water sources, constituents found in your drinking water and how the quality of water compares to regulatory standards. I am proud to share that Pasadena's water complies with all federal and state drinking standards.

To learn more, visit

PWPweb.com/WaterQuality

Questions about your water?

PWP welcomes your comments, questions, and participation.

For information about this report, or your water quality in general, please contact:

David E. Kimbrough, Ph.D. (626) 744-3704 (in English),
or **Tony Estrada (626) 744-3838** (en Español).

Public comments are also welcomed at the weekly Pasadena City Council meetings, held every Monday at 6:30 p.m. at City Hall, 100 N. Garfield Avenue.

This report is available electronically at PWPweb.com/CCR2019. Previous years' reports and additional water quality information are available at PWPweb.com/WaterQuality.

If you would like a copy of this report mailed to you, please call **(626) 744-3704**.

Pasadena Citizen Service Center: (626) 744-7311

Water Waste Hotline

(626) 744-8888

ww5.CityofPasadena.net/311

Rebates and Conservation Tips

(626) 744-6970 • PWPweb.com/SaveWater

Metropolitan Water District of Southern California

(213) 217-6000 • mwdh2o.com

State Water Resources Control Board, Division of Drinking Water

(818) 551-2004

www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml

U.S. Environmental Protection Agency Safe Drinking Water Hotline

(800) 426-4791 • epa.gov/safewater

Hazardous Waste Disposal and Recycling

(888) CLEAN-LA • 888CleanLA.com

The Quality of Your Water Is Our Priority

Pasadena's Water Supply

In 2019, PWP provided 27,271 acre-feet or 8.89 billion gallons of water annually, to serve more than 168,000 consumers in Pasadena, portions of the unincorporated areas of Altadena, East Pasadena and San Gabriel. Historically, approximately 35 percent of the water

supply was pumped from local groundwater, whereas 65 percent came from imported surface water purchased from the Metropolitan Water District (MWD). Less than 1 percent was purchased from neighboring agencies that combine surface water and groundwater.

The Monk Hill Treatment Facility continues to operate and successfully remove perchlorate and volatile organic compounds from two groundwater wells

in the northwest portion of Pasadena. The treatment system, combined with continued conservation and strategic local supply planning, helped decrease Pasadena's reliance on imported water. PWP continues to explore possible opportunities to maximize use of local water supplies.

PWP's groundwater is pumped from the Raymond Groundwater Basin, a natural water-bearing zone underlying the communities of Pasadena, Altadena, La Cañada Flintridge, and portions of San Marino, Arcadia and Sierra Madre. Surface water from streams and precipitation enters the basin area through the natural water cycle. As surface water slowly percolates through the ground to the basin, the ground acts as a natural filter to strip the water of most contaminants. PWP's water is disinfected with chlorine and chloramines (chlorine plus ammonia) prior to being distributed to customers.

MWD is a consortium of 26 cities and water agencies that import water from the Colorado River and from Northern California (State Water Project) to serve nearly 19 million people in Southern California. MWD supplies PWP with water treated at the Weymouth Filtration Plant in La Verne. MWD also uses chloramines to disinfect its water.



Water Quality

To ensure that tap water is safe to drink, the USEPA and the DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.



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, (800) 426-4791.

The sources of drinking water (both tap water 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.

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 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 that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants** can be naturally-occurring or be the result of oil and gas production and mining activities.

Water Quality Issues that Could Affect Your Health

FEDERAL AND STATE REGULATIONS THAT IMPACT HEALTH & WATER QUALITY

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 individuals should seek advice from their health care providers about drinking tap water. 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, (800) 426-4791.



Fluoride

Your purchased water is fluoridated. MWD, which supplies about 65 percent of PWP's drinking water, adds fluoride to their water supply to the level of 0.6 to 0.9 parts per million (ppm). Before drinking water is delivered to your home or business tap, the fluoridated water is blended with PWP's groundwater. Since PWP's groundwater has naturally occurring fluoride levels of 0.5 to 1.5 ppm, the resulting concentration of fluoride is an average of 0.8 ppm. At this range, fluoride has been proven to be effective in preventing tooth decay.

For more information about fluoridation, oral health, and current issues, please visit PWPweb.com/WaterQualityFAQ.

Lead and Copper

Under the Lead and Copper Rule (LCR), PWP tests the water at the tap of dozens of its customers every three years.

Most testing occurs at the source of drinking water, such as wells, streams, and lakes. However, LCR samples are collected at the tap because lead and copper are almost never found in source waters and they occur most frequently in tap water because of the corrosion of household fixtures, such as brass in faucets.



The results of our testing indicate that the water does not exceed the Action Levels set in the LCR.

If you are concerned about the presence of lead or copper in your tap water, you can minimize the potential for lead and copper exposure by flushing your tap for 5 seconds before using water for drinking or cooking.

Nitrates

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; symptoms include 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.

Hardness

Water becomes hard as it passes over or through certain geological formations that contain calcium or magnesium. For example, groundwater becomes hard as it percolates down to the water table through limestone deposits containing calcium, or through dolomite and other magnesium bearing minerals that dissolve into water. Surface water imported to Pasadena is hard because it has passed over similar formations as it flows hundreds of miles from the Colorado River and Northern California. Hard water causes white, scaly deposits on plumbing fixtures, cooking utensils, and dishwashers. It reduces the cleaning power of soap and detergent and causes buildup in water heaters, thus reducing its effective lifetime. PWP's water hardness ranges from 100 to 400 ppm or 5.8 to 23 grains per gallon. The average is approximately 250 ppm or 14.5 grains per gallon.

Though hardness causes aesthetic disadvantages, our bodies require calcium and magnesium and therefore there is no known negative health effect that is caused by hard water.





Save Money and Water with PWP's Residential Programs

As a community utility, PWP encourages customers to transform their landscapes and homes into water-efficient spaces. With a variety of robust offerings, there are many different programs designed to help Pasadena customers save water and money.

Replacing in-home appliances? Consider upgrading to a water-efficient appliance, PWP offers many rebates to offset the cost of these alternatives. Rebates are provided for high-efficiency toilets, clothes washers, irrigation systems and more.

PWP also offers many programs and tools to transform your home's outdoor space. Our online landscape guide provides inspiration for gardening, while also educating customers on California-native, fire wise and drought-tolerant plant options. Additionally, customers interested in projects like Greywater or Drip Irrigation can receive free tools and assistance from PWP experts.

Learn more about programs, rebates and resources that help you save water at

PWPweb.com/SaveWater

Important Information

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyon na nilalaman nito. Mangyaring ipasalin ito.

Այս գեղեցագիրը պարունակում է շատ կարևոր տեղեկություններ խմելու ջրի վերաբերյալ. Թարգմանեք կամ խոսացեք որևիցե անձի հետ որը կհասկանա գեղեցագիրը.

この情報は重要です。翻訳を依頼してください。

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

यह सूचना महत्वपूर्ण है। कृपा करके किसी से सहा अनुवाद कराये।

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

Pasadena's Watering Schedule

In Pasadena, ongoing conservation is essential and we appreciate each person's efforts to use water efficiently. Did you know that outdoor water use makes up approximately 30 percent of residential use for the average American home? In an effort to combat water-waste outdoors, Pasadena has a set of regulations to help residents be mindful of their outdoor watering habits.

As stated by the Pasadena Watering Schedule, outdoor watering is limited to three days per week (Tuesday, Thursday and Saturday) during the Spring and Summer, which is recognized as April 1 through October 31. In the Fall and Winter (November 1 through March 31), outdoor watering is limited to one day per week, Saturday. All watering should be done before 9 AM and after 6 PM, as this helps prevent water loss due to evaporation and high heat; unless using a hand-held container or hose with a shut-off nozzle.

Customers can read more about the Watering Schedule at

PWPweb.com/Schedule



City of Pasadena 2019 Groundwater and MWD Treated Surface Water Data

Parameter	MCL	PHG / MCLG	DLR / MRL	Pasadena Sources		MWD Weymouth Plant		MCL Violation	Typical Source of Contaminant
				Typical	Range	Typical	Range		
Primary Standard (Monitored for health concerns)									
Radiologicals (pCi/L)⁽¹⁾									
Gross Alpha Particle Activity	15	n/a	3	8	5 – 11	ND	ND	No	Erosion of natural deposits
Uranium	20	0.43	1	10	3 – 15	ND	ND	No	Erosion of natural deposits
Combined Radium	5	0	1	ND	ND – 1.4	ND	ND	No	Erosion of natural deposits
Organic Compounds									
Tetrachloroethylene (PCE) (ppb)	5	0.06	0.5	ND	ND – 1.2	ND	ND	No	Discharge from factories, dry cleaners, and autoshops
Toluene (ppb)	150	150	0.5	ND	ND	0.6	0.6	No	Discharge from petroleum and chemical refineries
Trichloroethylene (TCE) (ppb)	5	1.7	0.5	ND	ND – 1.3	ND	ND	No	Discharge from metal degreasing sites and other factories
Inorganic Compounds									
Aluminum (ppb)	1000	600	50	ND	ND	Highest Average (RAA)= 122	ND – 110	No	Erosion of natural deposits
Arsenic (ppb)	10	0.004	2	ND	ND	ND	ND	No	Erosion of natural deposits, runoff from orchards and industrial process
Barium (ppb)	1000	2000	100	ND	ND – 160	ND	ND	No	Erosion of natural deposits
Chromium (ppb)	50	100	10	3	0.5 – 7.5	ND	ND	No	Erosion of natural deposits
Fluoride (ppm)	2	1	0.1	0.8	0.5 – 1.5	0.7	0.6 – 0.9	No	Water additive for dental health, erosion of natural deposit
Nitrate as N (ppm)	10	10	0.4	4.9	ND – 7.8	0.5	0.5	No	Runoff and leaching from fertilizer use, erosion of natural deposits
Perchlorate (ppb) ⁽²⁾	6	1	4	ND	ND – 2.1	ND	ND	No	Industrial waste discharge
Secondary Standard (Monitored for aesthetic qualities such as taste, color, odor)⁽³⁾									
Chloride (ppm)	500	n/a	n/a	60	18 – 108	50	46 – 55	No	Runoff and leaching from natural deposits
Color (Units)	15	n/a	n/a	0	0	0	0 – 1	No	Naturally-occurring organic materials
Iron (ppb)	300	n/a	100	ND	ND – 220	243	243	No	Erosion of natural deposits; industrial wastes
Odor (Units)	3	n/a	1	1	1	1	1	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	n/a	n/a	681	490 – 970	469	435 – 503	No	Substances that form ions when in water
Sulfate (ppm)	500	n/a	0.5	100	32 – 259	73	65 – 81	No	Runoff and leaching from natural deposits
Total Dissolved Solids (ppm)	1000	n/a	n/a	399	260 – 630	266	244 – 289	No	Runoff and leaching from natural deposits
Turbidity (NTU)	5	n/a	0.1	0.3	ND – 1.7	ND	ND	No	Soil runoff
Other Parameters									
Alkalinity (ppm)	n/a	n/a	n/a	172	87 – 210	68	67 – 70	No	n/a
Calcium (ppm)	n/a	n/a	n/a	68	28 – 98	25	23 – 27	No	n/a
Corrosivity (LSI)	n/a	n/a	n/a	0.2	-0.4 – 0.5	0.4	0.3 – 0.4	No	n/a
Magnesium (ppm)	n/a	n/a	n/a	20	12 – 37	12	11 – 12	No	n/a
pH (pH Units)	n/a	n/a	n/a	7.6	7.2 – 7.9	8.5	8.5	No	n/a
Potassium (ppm)	n/a	n/a	n/a	2.6	2.0 – 3.1	2.4	2.2 – 2.7	No	n/a
Sodium (ppm)	n/a	n/a	n/a	38	22 – 54	50	46 – 54	No	n/a
Total Hardness (ppm)	n/a	n/a	n/a	255	124 – 394	108	101 – 116	No	n/a

Understanding the Water Quality Chart

As in previous years, the Water Quality Report compares the quality of your tap water to state and federal drinking water standards. The report includes information on all regulated and unregulated drinking water contaminants that were detected during calendar year 2019. More than 100 regulated contaminants that were tested for, but not detected, are not included in this report. A number of regulated chemicals and other compounds do not require annual monitoring. Their most recent test results and corresponding test year are footnoted, if applicable. DDW allows PWP to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

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 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 the California Environmental Protection Agency.

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

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

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.

Detection Limits for Purposes of Reporting (DLR): The DLR is a parameter that is set by regulation for each reportable analyte.

It is not laboratory specific and it is independent of the analytical method used (in cases where several methods are approved). It is expected that a laboratory can achieve a Reporting Limit that is lower than or equal to the DLR set by the DDW. This is also known as the Minimum Reporting Level (MRL).

NA: Contaminant or property was not analyzed.

n/a: Not applicable.

ND: Contaminant was not detected. The contaminant is less than the DLR.

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

Units of Measurement:

ppm = parts per million

ppb = parts per billion

pCi/L = picocuries per liter

LSI = Langelier Saturation Index

µS/cm = microsiemens per centimeter

NTU = Nephelometric Turbidity Units.

City of Pasadena Water Distribution System

Parameter	MCL	PHG	DLR / MRL	Pasadena Water System		MCL Violation	Typical Source of Contaminant
				Highest Average	Range		
Disinfection By-Products and Disinfectant Residuals (D/DBP) ⁽⁴⁾							
TTHM [Total Trihalomethanes] (ppb)	80	n/a	n/a	Highest Average (LRAA) = 29	4.4 – 36.7	No	By-products of drinking water disinfection
HAA5 [Haloacetic Acids] (ppb)	60	n/a	n/a	Highest Average (LRAA) = 8	ND – 11	No	By-products of drinking water disinfection
Bromate (ppb)	10	0.1	1	n/a	n/a	No	By-products of drinking water oxonation
Total Chlorine Residual (ppm)	MRDL = 4	MRDLG = 4	n/a	Highest Average (RAA) = 1.32	ND – 2.7	No	Drinking water disinfectant added for treatment
Microbiological (%)							
Total Coliform Bacteria (%)	5	0	n/a	Highest Monthly Average = 0.0%	0	No	Naturally present in the environment

City of Pasadena Water Distribution System – Lead and Copper Levels at Residential Taps⁽⁵⁾

Parameter	AL	PHG	DLR / MRL	Pasadena Water System		MCL Violation	Typical Source of Contaminant
				90th Percentile	Number of Sites Exceeding AL		
Lead (ppb)	15	0.2	5	ND	0 out of 62	No	Internal corrosion of household water plumbing system
Copper (ppm)	1.3	0.3	0.05	0.35	0 out of 62	No	Internal corrosion of household water plumbing system

Detection of Unregulated Contaminants

Parameter	MCL	PHG / MCLG	DLR / MRL	Pasadena Water System		MWD Weymouth Plant		MCL Violation	Typical Source of Contaminant
				Typical	Range	Typical	Range		
Hexavalent Chromium (ppb) ⁽⁶⁾	n/a	0.02	1	3.1	1.9 – 5.8	ND	ND	n/a	Erosion of natural deposits, industrial waste discharge

Federal Unregulated Contaminants Monitoring Rule (UCMR 4)

Parameter	MCL	PHG / MCLG	DLR / MRL	Pasadena Water System		MCL Violation	Typical Source of Contaminant
				Average	Range		
Total Microcystins (ppb)	n/a	n/a	0.30	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-LA (ppb)	n/a	n/a	0.008	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-LF (ppb)	n/a	n/a	0.006	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-LR (ppb)	n/a	n/a	0.02	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-LY (ppb)	n/a	n/a	0.009	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-RR (ppb)	n/a	n/a	0.006	ND	ND	n/a	Produced from cyanobacterial cells
Microcystin-YR (ppb)	n/a	n/a	0.02	ND	ND	n/a	Produced from cyanobacterial cells
Nodularin (ppb)	n/a	n/a	0.005	ND	ND	n/a	Produced from cyanobacterial cells
Anatoxin-a (ppb)	n/a	n/a	0.03	ND	ND	n/a	Produced from cyanobacterial cells
Cylindrospermopsin (ppb)	n/a	n/a	0.09	ND	ND	n/a	Produced from cyanobacterial cells
Germanium (ppb)	n/a	n/a	0.3	ND	ND	n/a	Naturally present in the environment
Manganese (ppb)	n/a	n/a	0.4	10.4	ND – 30	n/a	Naturally present in the environment
Alpha-hexachlorocyclohexane (ppb)	n/a	n/a	0.01	ND	ND	n/a	Formerly used as an insecticide
Chlorpyrifos (ppb)	n/a	n/a	0.03	ND	ND	n/a	Used as an insecticide, acaricide and miticide
Dimethipin (ppb)	n/a	n/a	0.2	ND	ND	n/a	Used as an herbicide and plant growth regulator
Ethoprop (ppb)	n/a	n/a	0.03	ND	ND	n/a	Used as an insecticide
Oxyfluorfen (ppb)	n/a	n/a	0.05	ND	ND	n/a	Used as an herbicide
Profenofos (ppb)	n/a	n/a	0.3	ND	ND	n/a	Used as an insecticide and acaricide
Tebuconazole (ppb)	n/a	n/a	0.2	ND	ND	n/a	Used as a fungicide
Total permethrin (cis- & trans-) (ppb)	n/a	n/a	0.04	ND	ND	n/a	Used as an insecticide
Tribufos (ppb)	n/a	n/a	0.07	ND	ND	n/a	Used as an insecticide and cotton defoliant
HAA6Br (ppb)	n/a	n/a	n/a	2.05	ND – 5.1	n/a	By-products of drinking water disinfection
HAA9 (ppb)	n/a	n/a	n/a	2.08	ND – 6.1	n/a	By-products of drinking water disinfection
1-butanol (ppb)	n/a	n/a	2.0	ND	ND	n/a	Used as a solvent, food additive and in production of other chemicals
2-methoxyethanol (ppb)	n/a	n/a	0.4	ND	ND	n/a	Used in a number of consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions
2-propen-1-ol (ppb)	n/a	n/a	0.5	ND	ND	n/a	Used in the production flavorings, perfumes and other chemicals
Butylated hydroxyanisole (ppb)	n/a	n/a	0.03	ND	ND	n/a	Used as a food additive (antioxidant)
O-tolidine (ppb)	n/a	n/a	0.007	ND	ND	n/a	Used in the production of dyes, rubber, pharmaceuticals and pesticides
Quinoline (ppb)	n/a	n/a	0.02	ND	ND	n/a	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal
Total Organic Carbon (TOC) (ppm)	n/a	n/a	n/a	2.2	2.2	n/a	By-product of decaying natural organic matter
Bromide (ppm)	n/a	n/a	n/a	150	150	n/a	By-products of drinking water disinfection

Footnotes:

- 1) The data for Pasadena is collected on a monitoring schedule based on radionuclide Rule (Section 64442, Title 22, California Code of Regulations) . Results are based on 2018 monitoring.
- 2) Although all results were below the DLR of 4 ppb, trace data is included because there is historic public interest in this topic.

- 3) There are no PHGs, MCLGs or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.
- 4) The MCL for TTHM and HAA5 are based on the Location Running Annual Average (LRAA) and the MRDL for bromate and total chlorine residual are based on the Running Annual Average (RAA)
- 5) Lead and Copper values are based on triennial monitoring at residential taps. Results are based on 2017 monitoring.

- 6) The previous MCL of 10 ppb was withdrawn on September 11, 2017. There is currently no MCL for hexavalent chromium. Results are based on 2018 monitoring.

For more information or questions about this report, or your water quality in general, please contact David E. Kimbrough, Ph.D. (626) 744-3704 (in English), or Tony Estrada (626) 744-3838 (en Español).

Improving the Local Water Supply

With the creation of PWP's **Water System and Resource Plan**, work is being done to improve how Pasadena uses local supply within the city, and how we can preserve and

improve the Raymond Basin so it is a viable water source for generations to come. These efforts include enhancing current infrastructure in the city, examining ways to better the environmental conditions of the Raymond Basin, working in partnership with other organizations to formulate a plan, and ultimately moving towards a more independent future that doesn't require as much imported supply.

As PWP continues to improve infrastructure and plans in order to support more efficient use and capture of local water supply, we also encourage our customers to consider what each resident and business can do on a parcel-level.



Since our local supply, the Raymond Basin, is a groundwater aquifer, each personal landscape or commercial garden in Pasadena can affect the water supply as a whole.

PWP encourages customers to be creative when it comes to parcel-

level water reclamation and groundwater recharge. Greywater systems, bioswales and landscaping permaculture techniques allow for water to remain in the ground and become part of the aquifer. Additionally, please be mindful of what products are going into a landscape — avoid dumping chemicals, oils, or other toxic materials on the ground as these items can negatively affect our aquifer.

To learn more about our local supply, visit

PWPweb.com/Water

Depend On Us To Deliver Quality Water



Turn the tap and the water flows, as if by magic. Or so it seems. The reality is considerably different, however. Delivering high-quality drinking water to our customers is a scientific and engineering feat requiring considerable effort and talent to ensure the water is always available to drink.

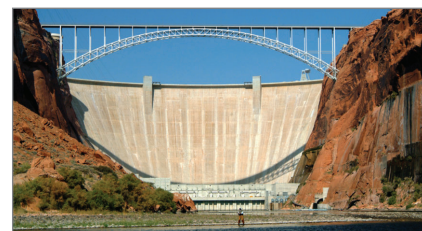
Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be certified and are required to complete on-the-job training and technical education before becoming a state certified operator.

Our certified water professionals have an understanding of a wide range of subjects, including mathematics, biology, chemistry, physics, and engineering. Some of the tasks they complete on a regular basis include:

- ◆ Operating and maintaining equipment to maintain water quality;
- ◆ Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- ◆ Conducting tests and inspections on water and evaluating the results;
- ◆ Documenting and reporting test results and system operations to regulatory agencies; and
- ◆ Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind every drop.

Drinking Water Source Assessment



An assessment of the drinking water sources for Pasadena's water system was completed in August 2002. The wells in Pasadena were found to be most vulnerable to contamination from automobile gas stations, repair shops and body shops; and underground storage tanks. A copy of the complete assessment is available at Pasadena Water and Power, 150 S. Los Robles Avenue, Suite 200.

In 2012, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Based upon the vulnerability assessments, the Colorado River and State Water Project supplies are most vulnerable to contamination resulting from recreation, urban/storm water runoff, increasing urbanization in the watershed, and waste water. A copy of the assessment can be obtained by contacting MWD at praadministration@mwdh2o.com.



PASADENA
Water & Power
SERVING THE COMMUNITY SINCE 1906

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