

Currents



SPECIAL EDITION!

2018 ANNUAL

WATER QUALITY REPORT

Burbank Water and Power provides water service for the citizens of Burbank.

BWP is proud of our ongoing record of delivering high quality water services to Burbank's residents and businesses for over 100 years. Burbank's water not only meets but exceeds the U.S. Environmental Protection Agency and CA State Division of Drinking Water standards.

This report shares the results of thousands of sample tests being analyzed for over 162 elements that may be found in drinking water. One important section of this report includes educational information and precautions for people with health issues that require them to avoid certain constituents and/or contaminants.

If you have any questions about this report, please call Tony Umphenour at (818) 238-3500. For information on BWP's water conservation programs, please visit us at **BurbankWaterAndPower.com**. You can also attend BWP Board meetings held at 164 W. Magnolia normally scheduled on the first Thursday of each month at 5:00 p.m.

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

Այս տեղեկագիրը կը պարունակէ կարեւոր տեղեկութիւններ ձեր խմած ջուրին մասին: Հաճեցէք կարդալ կամ թարգմանել տալ:

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Tony, Our Water Specialist, Answers Your Questions



Tony Umphenour is BWP's most experienced water-quality expert. He regularly receives questions from BWP's customers about their water, and he is happy to answer them. If you have a question for Tony, send it to him at AUmphenour@burbankca.gov or call him at (818) 238-3500.

Where does our water supply come from?

Tony: Burbank is 100% dependent on imported water. We purchase it from the Metropolitan Water District, which gets it from two sources: the Northern Sierra Mountains in California and the Colorado River. We store the untreated water in local underground aquifers.



How does BWP make sure our tap water is safe?

Tony: BWP operates one water-treatment plant that checks for the presence of over 160 chemicals and contaminants every year. Our filtration technologies remove contaminants so Burbank residents can enjoy safe, high-quality drinking water. Burbank's water quality not only meets but exceeds most of the U.S. Environmental Protection Agency and CA State Division of Drinking Water standards.



Is our water contaminated by Chromium or other pollutants?

Tony: Burbank, Glendale, Los Angeles, and San Fernando pump water from the same underground reservoir. More than half of BWP's drinking water comes from that reservoir. Yes, there are pollutants in the reservoir, but BWP treats that water to make sure it meets and exceeds strict federal and state limits.

Does Burbank's water supply have the toxic chemical PFAS in it?

Tony: No, it does not. Recently there has been concern about a group of chemicals called per- and polyfluoroalkyl substances (PFAS) that were found in some other cities' drinking water. We have sampled our wells and detected no PFAS. For more information on PFAS please see the State's website: https://www.waterboards.ca.gov/pfas/docs/pfas_general_faq.pdf

I live in an old home with old plumbing. Should I be worried about lead?

Tony: We occasionally get questions from customers asking if their 40 year-old pipes contain lead that can get into the water. Old pipes used lead solder in the joints, which would be the only source of the lead (the water in the city's distribution system contains no lead). Every three years BWP asks customers to participate in the Federal Lead and Copper Rule in which fifty samples are collected from homes throughout the city where the water has sat unused overnight. Every three years, the results detect no lead in the drinking water.

Some mornings when I turn on the tap, the water is a strange color. Is there a problem?

Tony: Most likely it's a plumbing issue. Water that sits in pipes, particularly older ones, can become discolored. This is easily cured by running the water for a bit of time after first turning on the faucet. I recommend using a bucket to catch the stagnant water and then water your plants with it.



Why is my water so "hard"?

Tony: Burbank's water is "hard" because of the naturally occurring calcium and magnesium deposits that are found in the ground and are dissolved as water moves through soil and rock. Hard water is not a health hazard, and these minerals in water could be a major contributor of essential calcium and magnesium to your diet.

Why is there white sediment around my dishes when I take them out of the dishwasher?

Tony: Those deposits are calcium and magnesium, two naturally occurring minerals that are dissolved as water moves through soil and rock. Using rinse agents will help your dishwasher remove those mineral deposits and get your dishes sparkling!

My tap water sometimes has black specks in it. What are they?

Tony: Water is the universal solvent and dissolves a variety of things. With the addition of a disinfectant to kill microbes, rubber household plumbing fixtures can degrade, creating those black specks you see in your water. If you're seeing black specks in your tap water, it's probably time to replace those rubber components in the plumbing fixture. Look for Chloramine-resistant rubber products for your kitchen fixtures, bathroom shower heads and faucets, and bathroom toilets.

We invite you to review other sections of this newsletter to learn more about Burbank's water quality. And if you do have a question, please call or email Tony — he'd be glad to help!

On the Menu: Burbank's Finest Blend



**Burbank's Finest
2018**

Some customers notice their water tastes different from one year to the next, or even within the same year. There's a very good reason for that. Like a winemaker who produces a wine with grapes grown in different regions, BWP blends water from three sources — the Northern California Sierra Mountains, the Colorado River, and local groundwater — to produce the high-quality water that comes out of your tap.

The three sources of water used by BWP have different properties and tastes. For those with discerning taste buds, the local groundwater has an earthy taste, Northern California's water is crisp, and Colorado's water is sweet.

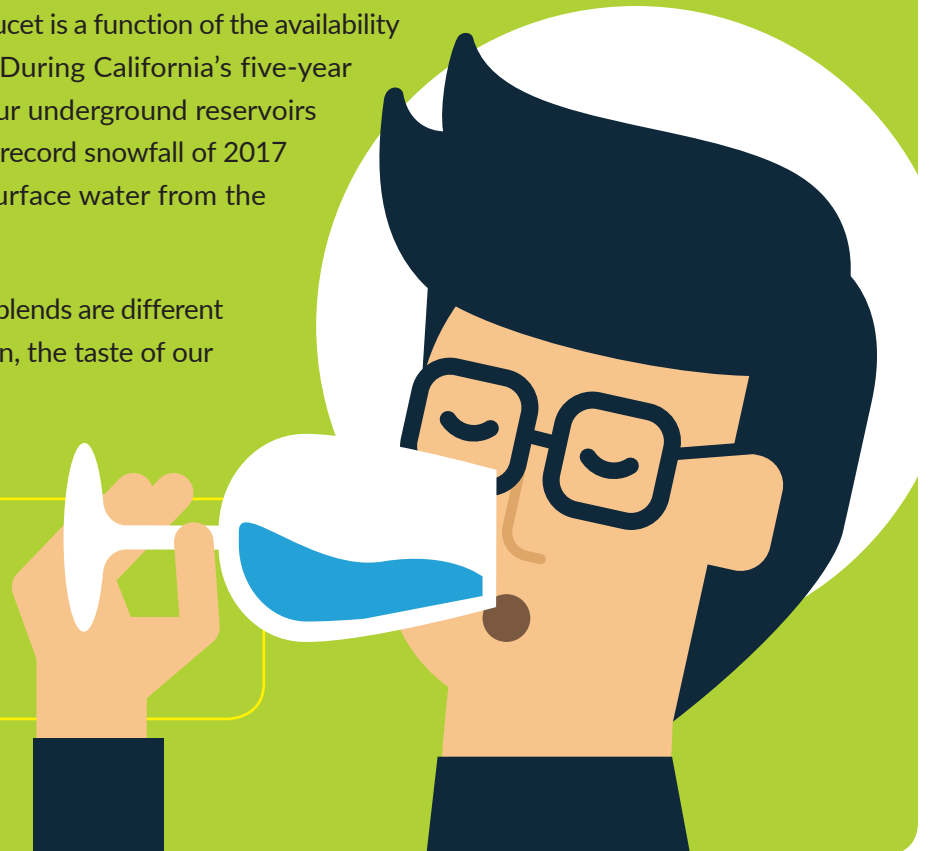
Water is the universal solvent. When water comes into contact with air or soil, it interacts with small amounts of chemicals and minerals, giving it a distinct characteristic.

The chemical composition of soil during a drought is different from what it is during a wet year, and those different compositions have different flavor characteristics.

So the taste of water coming out of your faucet is a function of the availability and conditions of BWP's water sources. During California's five-year drought, we relied more on water from our underground reservoirs and the Colorado River. When California's record snowfall of 2017 ended that drought, we relied more on surface water from the Sierra Mountains.

And, because Burbank's water sources and blends are different than those found in the San Fernando basin, the taste of our water is different from the taste of theirs.

"Hmm, I detect sweet notes with delicate characteristics from the Sierras. Just delightful!"





the **animation** guild

Good Service and Scalability Meets the Needs of The Animation Guild



ONEBurbank is a suite of BWP fiber optic services offered to Burbank businesses looking for exceptionally fast and reliable bandwidth. Visit ONEBurbank at **ONEBurbank.com**

The Animation Guild Local 839 of the International Alliance of Theatrical Stage Employees (IATSE) is a labor union representing artists, technicians, and writers in the animation and visual effects industry. Founded in 1952 and located on Burbank's Hollywood Way, The Animation Guild's members are some of the most talented and sought-after entertainment professionals from such notable studios as Nickelodeon, Cartoon Network, DreamWorks Animation, and Walt Disney Animation Studios. The union's mission is to protect the rights of its more than 4,500 members, to ensure fair working conditions, and to advocate for its membership. Providing a wide array of benefits and a strong, collective voice for the members it represents is the organization's goal.

Jason MacLeod, Business Representative, describes *The Animation Guild's* experience with BWP's ONEBurbank fiber service: In my role as the elected Business Representative, it's my responsibility to ensure

that the mission of our Guild is implemented. We recognized that increasingly we would be moving to more cloud-based services so finding a provider that was more reliable than our existing service and also one that would allow us to scale up was critical. We were looking for better quality so I started to explore different options. ONEBurbank's service offerings seemed like a good fit for our needs and, as a local provider, could serve our area efficiently.

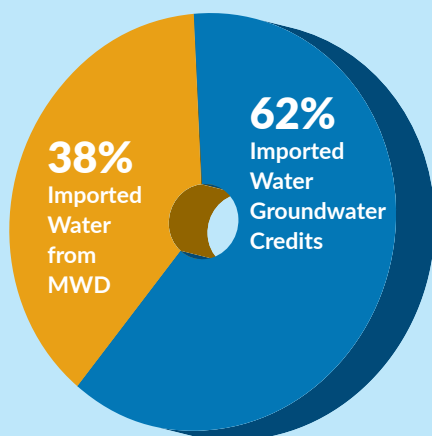
So far, the service has been good! I've been happy with ONEBurbank's responsiveness. Going forward, I think there's an opportunity to expand the dialogue if needed. As someone who's always interested in lower prices and faster internet (and who isn't?!) ONEBurbank matches our needs.

We welcome *The Animation Guild* as another satisfied ONEBurbank customer! Visit their website at www.animationguild.org for more information.

Above: Jason MacLeod, Business Representative for The Animation Guild

Burbank is Dependent on Imported Water

The Southern California region is dry and prone to droughts. Rainwater that makes its way to underground aquifers beneath our City does not belong to us. Burbank is 100% dependent on imported water that is purchased from the Metropolitan Water District of Southern California (MWD).



**BWP's 2018 Water Sources
Delivered to Customers**

this lower cost water from the aquifer, treats it to meet the U.S. Environmental Protection Agency and CA State Division of Drinking Water standards, and then blends it with treated water purchased from MWD.

Using Recycled Water to Save Drinking Water

Every time you wash your dishes or take a shower there is wastewater that goes down the drain. The wastewater is collected and treated to remove any contaminants to become what is known as recycled water.

Recycled water contains more salts and nutrients compared to our drinking water, which limits its use to mostly landscape irrigation. The use of recycled water improves the sustainability of our water supply because every gallon of recycled water that is used saves precious drinking water.

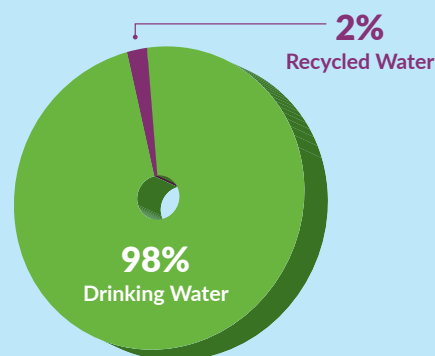
Today, over 160 sites in Burbank have been converted to use recycled water, including many Burbank schools and parks, the DeBell Golf Course, and many major studios. The Magnolia Power Plant also operates on 100% recycled water.

Importing Water Allows Burbank to Earn Credits to Pump Up Groundwater

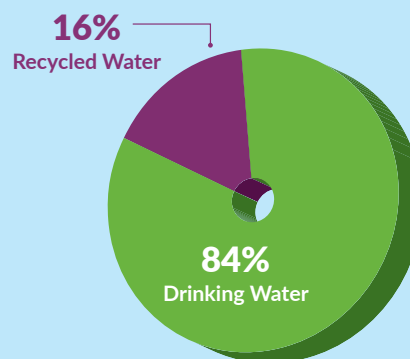
Untreated water purchased from MWD travels through hundreds of miles of pipes all the way from the Colorado River Aqueduct in Arizona, and through pipes and canals from the State Water Project in Northern California. MWD treats this water and sells it to Burbank.

MWD also delivers lower cost untreated water that allows Burbank to put the water directly into the ground via the Pacoima and Lopez spreading grounds. This allows Burbank to use the aquifers as a storage facility similar to a savings account at a bank. For every gallon of untreated water that is deposited into the ground, Burbank receives a credit to pump up the same amount from the aquifer.

Burbank pumps



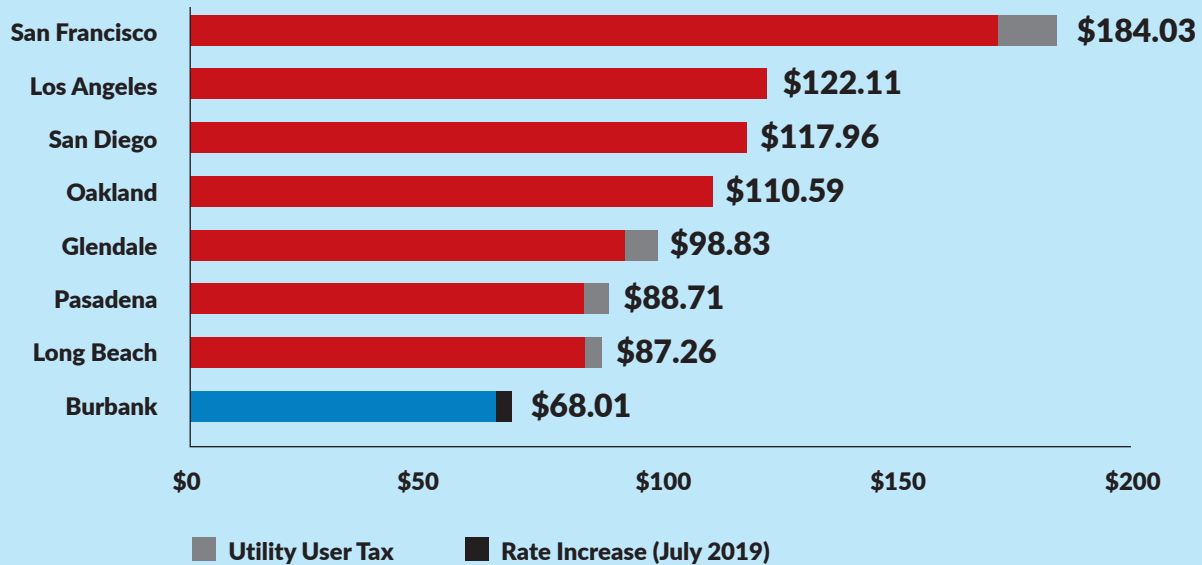
Burbank's Recycled Water Use in 2004



Burbank's Recycled Water Use in 2018

Water Bill Comparison

12,000 Gallons (One Inch Service)



Burbank's Water Rates are among the Lowest in the Region

Burbank City council recently approved a much-needed 4.9% increase to the price of water. This increase will help, but covers only a portion of the rising costs that have collected over the past years since the last significant drought in 2015. More cost increases are projected in the years to come. BWP has been able to keep prices the lowest in the region and rate increases are necessary to maintain a reliable and safe water service.

These rising costs include:

1. The costs of buying imported water.
2. Energy costs associated with pumping water.
3. Burbank has 276 miles of water lines that deliver over 13 million gallons of water every day.
The rate increase will help pay for maintenance and repairs to keep the water system operating smoothly so we can continue to reliably deliver water to you when you need it.
4. The new rate helps cover the costs of services the utility receives from other City departments, such as IT support, Finance and more.
5. The increase will help cover unfunded pension liability payments.

The rate increase helps us ensure that water is available for you today and for many years to come. And, even with the 4.9% increase, Burbank's water rates are still among the lowest in the region.



Meet John and Some of the BWP Water Crew

Wanted: Strong, brave, skilled people with a passion for service. Must be willing to work long hours in challenging conditions, often underwater. Superhuman powers a plus. That's the basic job description for the 20 or so pipefitters who maintain BWP's underground water system, repair it, expand it, and play a vital role in ensuring our community's water is there for you when you need it.

Pipefitters have to be ready to respond when emergency calls come in, often in the middle of the night. They have to be willing to jump into water-filled underground worksites to plug leaks. They report for work at 6:30 a.m., about the time most of the rest of us are getting out of bed. During Burbank's long summer, pipefitters work outdoors in 100-degree-plus temperatures.

"When we get an emergency call, we call that 'ditch-digger jacuzzi' because you're never sure what you're going to get," said John Johnson, a BWP pipefitter for 13 years. "All you can see are water bubbles coming out of a broken pipe. Once you shut off the water, the real work begins."

The Four-Year Journey to Become a Pipefitter

Pipefitters begin their journey as Apprentices. Hundreds of people apply to BWP's Apprentice program every year. Only a few are selected. It takes four years to become a full-fledged Pipefitter. Candidates must complete a rigorous program that combines on-the-job training during the day and classroom education at night. It takes dedication, skill, and a strong work ethic to succeed.

Safety First!

Pipefitters spend a lot of time operating heavy equipment like backhoes and excavators. But before they start to operate any equipment, Pipefitters check to see where all other utilities — including electric, gas, cable, telecommunications, and wastewater — are buried underground, so they don't accidentally come into contact with those utilities when they do their work.

Pipefitters are responsible for maintaining and repairing 276 miles of water lines that deliver 13 million gallons of water every day to Burbank homes and businesses.

Interacting with the Public

Pipefitters sometimes have to detour traffic around worksites. "We know commuters aren't always glad to see us detouring traffic," John said. "We don't want to affect your drive time, but sometimes we have no choice. Some parts of the water system in Burbank are over 100 years old, and when things get that old, sometimes they break. Repairing a break sometimes means we have to dig a trench in the street."

"When we interact with the public, most of the time it's very positive," said John Johnson. John recalled one inspiring moment at a worksite when two young girls and their mother came out of their home with bottles of water and a "thank you BWP" poster to give to the workers. "That kind of thing can really raise your spirits," he said.

BWP Tap Water: A Cheaper Alternative to Bottled Water

BWP's tap water is a sweet deal — better for you, better for your wallet, and better for the environment.

Let's start with your wallet. If you rely on bottled water for your recommended eight glasses of water per day, you could spend up to \$1,400 annually. Drinking the same amount of BWP tap water would cost you about 49 cents. Each person has to make their own spending decisions, and bottled water costs thousands of times more than Burbank's quality tap water.

Here's another way that BWP tap water surpasses bottled water: Our water has to meet strict federal and state water-quality standards, but bottled water has to meet far-less-rigorous standards. The advertising of bottled water could lead you to conclude that bottled water is somehow healthier than tap water. In fact, a four-year study by the Natural Resources Defense Council (NRDC), summarized in an online article, "The Truth About Tap," (<https://www.nrdc.org/stories/truth-about-tap>) found this:

"It's important to note that the federal government does not require bottled water to be safer than tap. In fact, just the opposite is true in many cases. Tap water in most big cities must be disinfected, filtered to remove pathogens, and tested for cryptosporidium and giardia viruses. Bottled water does not have to be.

"Both kinds of water are tested regularly for bacteria and most synthetic organic chemicals, but city tap is typically assessed much more frequently. For example, bottled-water plants must test for coliform bacteria just once a week; city tap needs to be tested 100 or more times a month."

A BWP customer recently wrote to us asking about arsenic in his bottled water and our tap water. The brand of bottled water he was using had 3 parts per billion (PPB) of arsenic in it. Consumer Reports reported

that some brands of bottled water have unsafe levels of arsenic. The customer asked about arsenic levels in BWP's water, since he didn't see it listed in last year's Water Quality Report.

Tony Umphenour, our water quality specialist, wrote back: "Arsenic is not found in Burbank's tap water. We monitor the water for many chemicals, including arsenic on a quarterly basis. Since arsenic was not detected in our prior year's testing, it was not included in last year's Water Quality Report. Not all of the constituents tested make it into the Water Quality Report; it only lists the chemicals or constituents that are 'Detected' in the water."

Some bottled water companies make it hard for you to determine where the water in the bottle comes from. The NRDC article found that 25% or more of all bottled water is simply tap water that may, or may not, have been further treated.

Also, plastic water bottles have an environmental impact. You don't have that problem with BWP tap water! Fill an environmentally friendly water bottle with BWP tap water and take it with you. The oceans and landfills will thank you!

Bottom line, BWP tap water is the safe, affordable, and a healthy alternative to bottled water. Drink up!



Defeating the Monster in Your Pipes!

There's a monster on the loose in your house. It's not under your bed. It's in your drain. But one cup of bleach can get rid of this uninvited and unwelcome guest.

Sometimes we receive inquiries from our customers about a bad odor that typically comes from the sinks in their kitchen or bathroom.

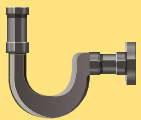
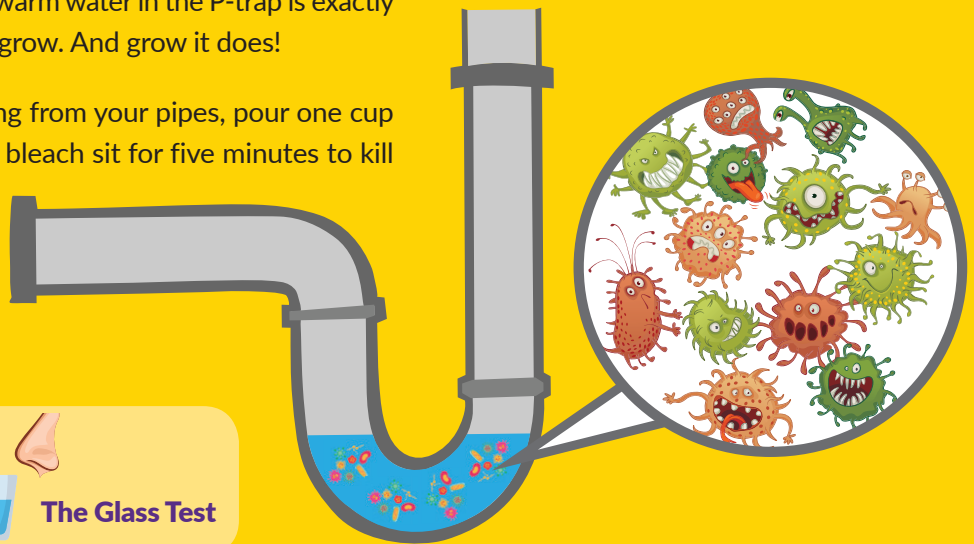
They wonder if it's the water coming out of the tap. It's not, because water doesn't have an odor. You can easily test this. Fill a glass with water from the faucet. Move away from the sink and take a whiff. Does it have an odor?

The odor from the sink comes from the bacteria that's collecting in your drain pipes.

Open the cabinet under your kitchen or bathroom sinks and you will see something like the diagram here. The U-shaped section of your pipes, called a P-trap, is designed to hold water to block smelly gases from coming into your house from the sewer.

The continual presence of relatively warm water in the P-trap is exactly the environment bacteria needs to grow. And grow it does!

If you start to detect an odor coming from your pipes, pour one cup of bleach down each drain. Let the bleach sit for five minutes to kill the bacteria and then flush with warm water for three to five minutes. Don't forget sinks in the bathrooms!



The P-Trap



The Glass Test

This Water Quality Report reflects changes in drinking water regulatory requirements during 2018. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

Public Notice: From January 9th to January 13th 2018, residents in the upper portion of Country Club Drive (addresses 1190-1480) were under Boil Water Notice due to the emergency situation caused by landslides and debris flows. The State Water Resources Control Board, Division of Drinking Water in conjunction with the City of Burbank Water and Power advised these residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

Educational Information

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) 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. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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 Safe Drinking Water Hotline (1-800-426-4791) or visiting their Web site at www.epa.gov/safewater/.

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).

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**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Nitrate: Nitrate (as nitrogen) 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.

Lead: 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. BWP is responsible for providing high quality drinking water, but cannot control the variety of materials used in private 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 water, you may wish to 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 or at www.epa.gov/safewater/lead or at BWP's website BurbankWaterandPower.com

How Much is One Part Per Billion?

Inside BWP's Water Quality Report

Each year, BWP and every other municipal water provider in the nation prepares a Water Quality Report to fulfill federal requirements. The report has a lot of technical jargon that can be hard to understand. We'd like to help you, our customer-owners, understand what our Water Quality Report means.

The results of our 2018 Water Quality Report is that our water not only meets but exceeds the U.S. Environmental Protection Agency and CA State Division of Drinking Water standards. This means that Burbank's water is safe to drink.

BWP tests for over 160 chemicals, minerals, and contaminants to ensure the tap water we deliver to you is 100% safe to consume. Before we dive into the data, here's a little background.

The tables in the Water Quality Report measure the amount of various minerals, chemicals, and contaminants in the water according to the number of Parts Per Million (PPM), Parts Per Billion (PPB), or Parts Per Trillion (PPT). Those are standardized units of measurement used by scientific and water-quality regulators around the world. Here's what they mean:



Parts Per Million (PPM)

If you filled a 10 gallon aquarium using an eyedropper, it would take one million drops of water. Each drop of water in the aquarium would equal one PPM.



Parts Per Billion (PPB)

The average backyard swimming pool in Burbank contains about 10,000 gallons of water. One PPB would equal one drop of water in a 10,000-gallon pool.



Parts per Trillion (PPT)

An Olympic-sized swimming pool contains 660,430 gallons of water. One PPT would be equal to one drop of water in 15 Olympic-sized swimming pools.

Why does BWP perform so many tests on so many chemicals and minerals? We want to be sure the water we treat, store and deliver to you, our customer-owners, is safe to drink.

Here's a summary of what our water-quality tests found during 2018:

Microbiological Table: BWP disinfects the water to kill harmful bacteria and pathogens which can cause diarrhea, severe abdominal cramps and vomiting. EPA and the State mandates that we take Total Coliform and E. Coli samples on a weekly basis as an indicator that the water is disinfected properly. BWP collects over 1,300 samples a year throughout the distribution system to meet this regulation. The table shows that none of these indicator bacteria was found in the water.

Lead and Copper Table: Lead attacks the brain and central nervous system and can cause severe nerve, brain and kidney disorders. Too much copper can cause nerve and also liver damage. The EPA mandates that we sample 50 homes throughout the city every 3 years for the presence of Lead and Copper and the results need to be under the Action Level. The table shows that there was no lead and only a small amount of copper in the water we tested last year. Although a certain amount of copper is necessary, too much copper can cause nerve and also liver damage.

BUSD Schools Table: In 2017, CA State mandated that if school districts wanted their schools to be tested for lead then we, the water agency, would have to sample the schools to make sure levels were under the Action Level. BWP worked with Burbank Unified School District (BUSD) personnel to check drinking fountains and kitchen faucets in all 22 schools. There was no lead detected in BUSD facilities except for one drinking fountain at the Adult School which was well below the Action Level.

Disinfection Table: As stated above, disinfecting the water is an effective way to kill harmful microbes but the disinfection products used to disinfect the water can combine with small amounts of organics in the water creating harmful by-products. EPA regulates these by-products and BWP samples throughout the distribution system on a quarterly basis. BWP adds the right amount of total chlorine to kill microbes and the Table shows these by-products are well below the Maximum Contaminant Level (MCL).

Primary Standards Table: There are strict standards for the presence of some chemicals because they can cause acute or long-term health issues. Burbank's water (shown in the 5th column) has small amounts of these chemicals but all are well below the MCL (shown in the 3rd column) in 2018. Media and news coverage of certain chemicals in the table has caused considerable interest among the public. As a result, BWP samples chromium, nitrate and fluoride much more frequently than the other chemicals on the table.

Secondary Standards Table: Regulations on these constituents are based on a level that affects the taste and appearance and are not health based. Burbank's water (shown in the 5th column) has small amounts of these constituents, but are well below the MCL (shown in the 3rd column) last year.

Other Parameters Table: The last table is the proverbial "kitchen sink," meaning it contains everything from unpronounceable chemicals to hexavalent chromium. Most of these constituents aren't regulated and don't have MCLs but customers might be interested to know the levels. Some of these constituents are being considered for regulation with an MCL and until that happens, the State has created Notification Levels (NL), whereby, BWP would have to notify the public if NLs went above the limit. In 2018, Burbank's water (in the 5th column), had small amounts of these constituents, but all were below the NL (in the 3rd column).



2018 ANNUAL WATER QUALITY REPORT

MICROBIOLOGICAL SAMPLING RESULTS

MICROBIOLOGICAL CONTAMINANTS	Units	MCL	MCLG	Highest No. of Detection	No. of Months in Violation	Typical Source of Bacteria
Total Coliform Bacteria (a) State Total Coliform Rule	%	5.0%	0%	0%	0	Naturally present in the environment
E.coli (Acute Total Coliform) (b) State Total Coliform Rule	(b)	(b)	0	0	0	Human and animal fecal waste
Total Coliform Bacteria (c) Federal Revised Total Coliform Rule	%	TT	NA	0%	0	Naturally present in the environment
E. coli (d) Federal Revised Total Coliform Rule	(d)	(d)	0	0	0	Human and animal fecal waste
Heterotrophic 3ate Count (HPC) (e)	CFU/mL	TT	NA	TT	NA	Naturally present in the environment

SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

CONSTITUENT	No. of Samples Collected	Action Level (AL)	Public Health Goal (PHG)	90th Percentile Level Detected	No. Sites Exceeding AL	Typical Source of Contaminant
Lead (ppb) (f)	53	15	0.2	ND	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (f)	53	1.3	0.3	0.25	0	leaching from wood preservatives

SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AT BUSD SCHOOLS

CONSTITUENT	No. of Schools Requesting Lead Sampling	Action Level (AL)	Public Health Goal (PHG)	No. Sites Exceeding AL	No. Sites Needing Corrective Action	Typical Source of Contaminant
Lead (ppb) (g)	22	15	0.2	0	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits; leaching from wood preservatives

DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

PARAMETER	Units	State MCL (MRDL)	PHG (MCLG) (MRDLG)	Running Annual Average	Lowest – Highest	Typical Source of Contaminant
Total Trihalomethanes (TTHM) (h)	ppb	80	NA	13	5 – 23	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (h)	ppb	60	NA	1.8	ND – 4.2	By-product of drinking water disinfection
Chloramines (i)	ppm	(4)	(4)	2.1	0.2 – 3.1	Drinking water disinfectant added for treatment
Bromate (i)	ppb	10	0.1	2.7	ND – 7.4	By-product of drinking water disinfection

DETECTION OF CONTAMINANTS WITH PRIMARY DRINKING WATER STANDARDS

PARAMETER	Units	State MCL	PHG (MCLG)	Burbank Water (j)	Lowest – Highest (k)	Typical Source of Contaminant
INORGANIC CHEMICALS:						
Aluminum (l)	ppb	1,000	600	28	ND – 220	Residue from water treatment process; erosion of natural deposits
Barium	ppb	1,000	2,000	79	ND – 118	Oil and metal refineries discharge; erosion of natural deposits
Chromium	ppb	50	(100)	2.8	ND – 4.2	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride Naturally-occurring	ppm	2	1	0.43	0.32 – 0.51	Erosion of natural deposits in groundwater
Optimal Fluoride Control Range						
Fluoride Treatment-related	ppm	2	1	0.51	0.4 – 0.9	Water additive for tooth health
Nitrate (as N)	ppm	10	10	5.0	ND – 6.1	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrate and Nitrite (as N)	ppm	10	10	5.0	ND – 6.1	Runoff and leaching from fertilizer use; sewage; natural erosion
RADIONUCLIDES:						
Gross Alpha Particle Activity (m)	pCi/L	15	(0)	5.7	ND – 9.1	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	(0)	3.9	ND – 6.3	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	9.4	ND – 15	Erosion of natural deposits

DETECTION OF CONTAMINANTS WITH SECONDARY DRINKING WATER STANDARDS

PARAMETER	Units	State MCL	PHG	Burbank Water (j)	Lowest – Highest (k)	Typical Source of Contaminant
Aluminum (l)	ppb	200	600	28	ND – 220	Residue from water treatment process; erosion of natural deposits
Chloride	ppm	500	NA	48	47 – 97	Runoff or leaching from natural deposits; seawater influence
Color	Units	15	NA	ND	ND – 3	Naturally occurring organic materials
Odor	Units	3	NA	1	1 – 4	Naturally occurring organic materials
Specific Conductance	µS/Cm	1,600	NA	693	428 – 1,010	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	78	43 – 236	Runoff or leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1,000	NA	403	239 – 639	Runoff or leaching from natural deposits; seawater influence
Turbidity	NTU	5	NA	0.15	ND – 0.15	Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants

OTHER PARAMETERS OF INTEREST TO CONSUMERS

PARAMETER	Units	State MCL	PHG	Burbank Water (j)	Lowest - Highest (k)	Typical Source of Contaminant
Alkalinity	ppm	NA	NA	187	68 - 190	Erosion of natural deposits
Boron	ppb	NL=1,000	NA	152	130 - 160	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	NA	NA	70	19 - 82	Erosion of natural deposits
Chlorate	ppb	NL=800	NA	29	29 - 32	By-product of drinking water chloramination; industrial processes
Corrosivity	AI	NA	NA	12.5	12 - 13	Elemental balance in water
Hardness as CaCO ₃ (n)	ppm	NA	NA	259	84 - 274	The sum of polyvalent cations present in the water, generally magnesium and calcium; cations are usually naturally-occurring
Hexavalent Chromium (o)	ppb	NA	0.02	2.9	ND - 3.9	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Magnesium	ppm	NA	NA	20	9.5 - 26	Erosion of natural deposits
Molybdenum (p)	ppb	NA	NA	5.9	5.9	Erosion of natural deposits
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	3	0.1	ND - 2.2	By-product of drinking water chlorination; industrial processes
N-Nitrosomorpholine (NMOR)	ppt	NA	NA	3.7	ND - 5.8	By-product of drinking water chlorination; industrial processes
pH	pH units	NA	NA	8.1	8.1 - 8.5	Acidity and alkalinity of water
Potassium	ppm	NA	NA	4.6	2.4 - 5.0	Erosion of natural deposits
Sodium	ppm	NA	NA	41	37 - 103	Refers to the salt present in the water and is generally naturally occurring
Strontium (p)	ppb	HRL=1,500	NA	890	890	Erosion of natural deposits
Total Organic Carbon	ppm	TT	NA	1.0	ND - 2.8	Various natural and man-made sources
Vanadium	ppb	NL=50	NA	2.4	ND - 3.9	Naturally-occurring; industrial waste discharge
1,4-dioxane	ppb	NL=1	NA	0.83	ND - 1.1	Discharge from chemical factories

The following definitions may be helpful in your understanding of our Water Quality 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.

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. 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.

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

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

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

Abbreviations:

AI = Aggressiveness Index; **CFU/mL** = Colony-Forming Units per milliliter; **HRL** = Health Reference Level; **NTU** = Nephelometric Turbidity Units; **N** = Nitrogen; **NA** = Not Applicable; **ND** = Not Detected; **NL** = Notification Level; **ppb** = Parts per Billion or Micrograms per Liter (µg/L); **ppm** = Parts per Million or Milligrams per Liter (mg/L); **ppt** = Parts per Trillion or Nanograms per Liter (ng/L); **pCi/L** = Picocuries per Liter; **PHG** = Public Health Goal; **TT** = Treatment Technique; **µS/cm** = Microsiemen per Centimeter

Footnotes:

(a) MCL for State total coliform is no more than 5% of monthly samples are positive. The MCL was not violated in 2018.

(b) *E. coli* MCL: The occurrence of 2 consecutive total coliform-positive samples, one of which contains *E. coli*, constitutes an acute MCL violation. The MCL was not violated in 2018.

(c) Total coliform Treatment Technique(TT) trigger, Level 1 assessments, and total coliform TT violations. No triggers, Level 1 assessments, or violations occurred in 2018.

(d) *E. coli* MCL and Level 2 TT triggers for assessments. No samples were *E. coli*-positive. No MCLs violations nor assessments occurred in 2018.

(e) All distribution samples collected for 2018 had detectable total chlorine residuals and as a result no HPC's were required.

(f) Lead and copper compliance based on 90th percentile being below the Action Level. Samples were taken from customer taps to reflect the influence of household plumbing. 50 homes were sampled in June/July 2017, none exceeded the action level for lead or copper. Water agencies are required to sample for lead and copper every 3 years according to EPA's Lead and Copper Rule.

(g) BUSD requested all 22 schools to be tested for lead at the drinking fountains and kitchen taps. Sampling occurred during the months of March and April of 2017 for a total of 101 sampling sites.

(h) Compliance is based on Locational Running Annual Average which is the average of the last four quarters in 2018.

(i) Compliance is based on Running Annual Average which is the average within the distribution system in 2018.

(j) Value shown is the average of the blended water (MWD water and local groundwater).

(k) The lowest and highest values from an individual source of water.

(l) Aluminum has primary and secondary MCL's.

(m) State MCL for Gross Alpha excludes radon and uranium. Compliance is based on adjusted gross alpha where radon and uranium are deducted.

(n) Hardness in grains/gallon can be found by dividing the ppm by 17.1. Burbank's water averaged 259 ppm for 2018 which is equivalent to 15 grains/gallon.

(o) There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 11, 2017.

(p) Data from 2015 sampling.

IMPORTANT WEB LINKS

California EPA: calepa.ca.gov

State Water Resources Control Board – Division of Drinking Water:
<http://www.waterboards.ca.gov>

EPA (Groundwater and Drinking Water): epa.gov/safewater



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