Currents

100 BURBANK WATER AND POWER 100 YEARS STRONG

2012 ANNUAL WATER QUALITY REPORT

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

BWP's Spencer Hess gives his daughter, Leah, a glass of Burbank's delicious tap water.

As we celebrate our Centennial year of service to Burbank, BWP is proud of our ongoing record of delivering quality water to Burbank's residents and businesses. Burbank's water not only meets but surpasses State and Federal drinking water standards. This report shares the results of BWP's and Metropolitan Water District of Southern California's (MWD) thousands of sample tests being analyzed for over 162 components 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.

BWP employees work hard to ensure that safe drinking water is supplied to Burbank at all times. We also work hard to keep water costs as competitive as possible. **Did you know that Burbank has the lowest water rates in the region?** 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 online at BurbankWaterAndPower.com. You can also attend BWP Board meetings held at 164 W. Magnolia (BWP Administration Building). The BWP Board typically meets on the first Thursday of each month at 5:00 p.m. The public is invited to participate in these meetings.

Este informe contiene información muy importante sobre su agua de 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.

Water Sources

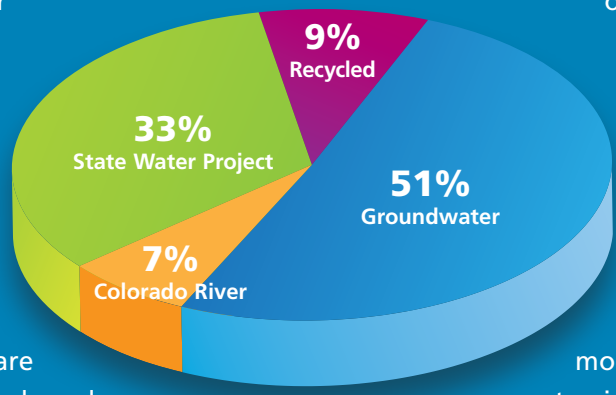
The drinking water for Burbank comes from three different sources: local groundwater from the San Fernando Valley Basin, the Colorado River, and the State Water Project.

Our groundwater source comes from wells in Burbank and is treated to remove volatile organic contaminants such as trichloroethylene (TCE) and tetrachloroethylene (PCE) before it enters our distribution system. Burbank has two treatment facilities, the Lake Street Plant and the Burbank Operable Unit (BOU) Plant. For the year 2012, 51% of our drinking water supply came from groundwater, located within the San Fernando Valley Basin and treated at the BOU.

The Colorado River Aqueduct and the State Water Project are imported water supplies purchased from the Metropolitan Water District of Southern California (MWD). MWD operates treatment facilities for these surface water supplies before delivering them to Burbank. For the year 2012, 33% of the City's drinking water came from the State Water Project and 7% came from the Colorado River Aqueduct. The groundwater and MWD sources comprise Burbank's potable water, prioritized for drinking water, but the majority is used for irrigation purposes. These sources meet all Federal and State standards. Please see the schematic of Burbank's Water System below.

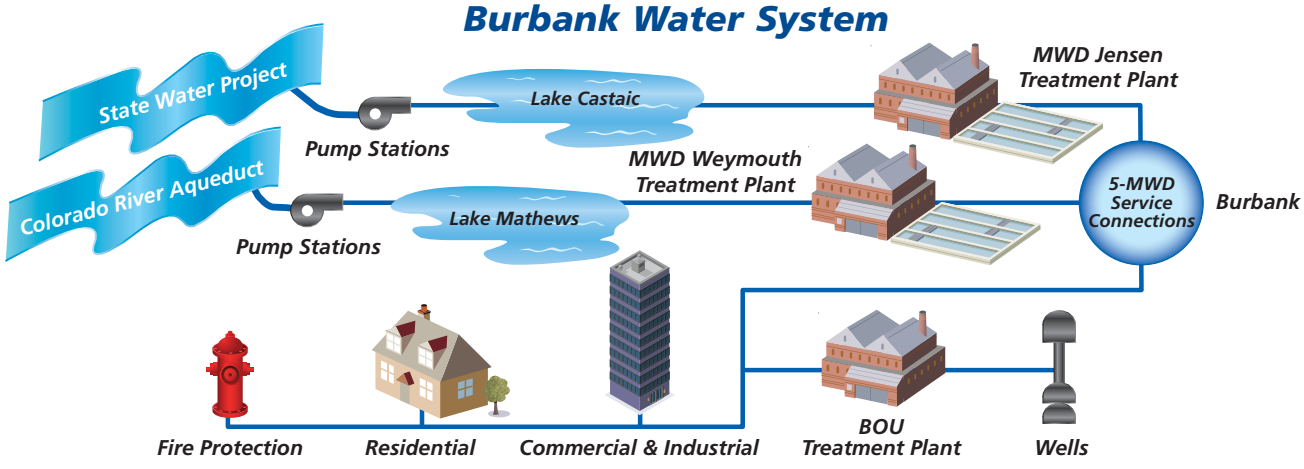
An additional water resource for Burbank is recycled water which is distributed via an independent water system. The use of recycled water improves the sustainability of our water supply, conserves the vital resource of potable water, and expands the drought proof portion of our water supply. It is a reliable supply for the irrigation of our parks and golf course, as well as for cooling water at our Power Plant. In 2012, 9% of the city's total water supply came from recycled water.

Burbank's 2012 Water Delivery Sources



A source water assessment was completed in December 2002 for both the groundwater and surface water supplies. The groundwater source is considered most vulnerable to the known contaminant plume that resulted in the construction of the BOU Plant. Possible contaminating activities include automobile repair shops, petroleum pipelines, National Pollutant Discharge Elimination System (NPDES) permitted discharges, metal plating, underground storage tanks, plastics producers, airport, military installations, and automobile gas stations. This report is available for public review at the Water Engineering Office located in the BWP Administration Building at 164 West Magnolia Blvd.

Burbank Water System



Educational Information

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 human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline (1-800-426-4791) or visiting their website at epa.gov/safewater.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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, petroleum production, or can come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants,** which can be naturally occurring or the result of oil and gas production and mining activities.

Nitrate: Nitrate in drinking water at levels above 45 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 45 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 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 epa.gov/safewater/lead or at BWP's website BurbankWaterAndPower.com

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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)	%	5.0%	0%	0%	0	Naturally present in the environment
E coli	(b)	(b)	0	0	0	Human and animal fecal waste
Heterotrophic Plate Count (HPC) (c)	CFU/mL	TT	NA	1	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) (d)	50	15	0.2	ND	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (d)	50	1.3	0.3	0.18	0	Internal corrosion of household water plumbing systems; 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 (f)	Typical Source of Contaminant
Total Trihalomethanes (TTHM) (e)	ppb	80	NA	14	7 – 17	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (e)	ppb	60	NA	0.7	ND – 2.6	By-product of drinking water disinfection
Chloramines (g)	ppm	(4)	(4)	1.9	0.2 – 3.0	Drinking water disinfectant added for treatment
Bromate (g)	ppb	10	0.1	1.6	ND – 6.9	By-product of drinking water disinfection

DETECTION OF CONTAMINANTS WITH PRIMARY DRINKING WATER STANDARDS

PARAMETER	Units	State MCL	PHG (MCLG)	Burbank Water (h)	Lowest – Highest (f)	Typical Source of Contaminant
INORGANIC CHEMICALS:						
Aluminum (i)	ppb	1,000	600	48	ND – 210	Residue from water treatment process; erosion of natural deposits
Arsenic	ppb	10	0.004	1.1	ND – 1.3	Natural deposits erosion, glass and electronics production wastes
Barium	ppb	1,000	2,000	70	ND – 85	Oil and metal refineries discharge; natural deposits erosion
Chromium	ppb	50	(100)	3.4	ND – 8.6	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride						
Naturally-occurring	ppm	2	1	0.47	0.39 – 0.54	Erosion of natural deposits; water additive for tooth health
Optimal Fluoride Control Range					**0.7 – 1.3**	BWP does not add Fluoride to the water
Treatment-related	ppm	2	1	0.63	0.49 – 1.1	Erosion of natural deposits; water additive for tooth health
Nitrate (as N) (j)	ppm	10	10	4.4	ND – 6.1	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrate and Nitrite (as N) (j)	ppm	10	10	4.4	ND – 6.1	Runoff and leaching from fertilizer use; sewage; natural erosion
RADIONUCLIDES:						
Gross Alpha Particle Activity (k)	pCi/L	15	(0)	5.4	ND – 9.7	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	(0)	3.9	ND – 6.0	Decay of natural and manmade deposits
Combined Radium (l)	pCi/L	5	(0)	0.7	ND – 1.2	Erosion of natural deposits
Uranium	pCi/L	20	0.43	7.8	ND – 13	Erosion of natural deposits

DETECTION OF CONTAMINANTS WITH SECONDARY DRINKING WATER STANDARDS

PARAMETER	Units	State MCL	PHG (MCLG)	Burbank Water (h)	Lowest – Highest (f)	Typical Source of Contaminant
Aluminum (i)	ppb	200	600	48	ND – 210	Residue from water treatment process; erosion of natural deposits
Chloride	ppm	500	NA	54	47 – 95	Runoff or leaching from natural deposits; seawater influence
Color	Units	15	NA	3	1 – 3	Naturally occurring organic materials
Odor	Units	3	NA	2	<1 – 3	Naturally occurring organic materials
Specific Conductance	µS/Cm	1,600	NA	690	350 – 930	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	80	46 – 160	Runoff or leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1,000	NA	410	240 – 490	Runoff or leaching from natural deposits; seawater influence
Turbidity	NTU	5	NA	0.09	ND – 0.16	Soil runoff

OTHER PARAMETERS OF INTEREST TO CONSUMERS

PARAMETER	Units	State MCL	PHG (MCLG)	Burbank Water (h)	Lowest – Highest (f)	Typical Source of Contaminant
Alkalinity	ppm	NA	NA	190	61 – 220	Erosion of natural deposits
Boron	ppb	NL=1,000	NA	150	130 – 170	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	NA	NA	63	23 – 72	Erosion of natural deposits
Chlorate	ppb	NL=800	NA	9.4	ND – 80	By-product of drinking water chloramination; industrial processes
Chromium VI	ppb	NA	0.02	3.1	ND – 8.9	Industrial waste discharge
Corrosivity	AI	NA	NA	13	12 – 13	Elemental balance in water
Hardness as $CaCO_3$ (m)	ppm	NA	NA	240	80 – 270	The sum of polyvalent cations present in the water, generally magnesium and calcium; cations are usually naturally-occurring
Magnesium	ppm	NA	NA	21	11 – 22	Erosion of natural deposits
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	3	1.0	ND – 6.7	By-product of drinking water chlorination; industrial processes
pH	pH units	NA	NA	8.2	7.9 – 8.6	Acidity and alkalinity of water
Potassium	ppm	NA	NA	3.9	2.3 – 4.2	
Sodium	ppm	NA	NA	45	38 – 82	Refers to the salt present in the water and is generally naturally occurring
Total Organic Carbon	ppm	TT	NA	0.90	ND – 2.6	Various natural and man-made sources
Vanadium	ppb	NL=50	NA	2.2	ND – 4.1	Naturally-occurring; industrial waste discharge

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; **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; **µS/cm =** microSiemen per centimeter

Footnotes:

(a) MCL for total coliform is no more than 5% of monthly samples are positive.

(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 2012.

(c) All distribution samples collected for 2012 had detectable total chlorine residuals and as a result no HPCs were required.

(d) 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 2011, 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.

(e) Compliance is based on Locational Running Annual Average which is the average of the last four quarters in 2012.

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

(g) Compliance is based on Running Annual Average which is the average of the last four quarters in 2012.

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

(i) Aluminum has primary and secondary MCLs.

(j) State MCL for Nitrate of 10 mg/L as N is equivalent to 45 mg/L as Nitrate.

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

(l) Standard is for Radium-226 and -228 combined.

(m) Hardness in grains/gallon can be found by dividing the ppm by 17.1. Burbank's water averaged 240 ppm for 2012 which is equivalent to 14 grains/gallon.

IMPORTANT WEB LINKS

California Department of Public Health (CDPH): cdph.ca.gov
California EPA: calepa.ca.gov
EPA (Groundwater and Drinking Water): epa.gov/safewater