Southmost Regional Water Authority
Microbiological Contaminants (Contaminants Detected in Your Water)

Constituent	Highest No. of Positive	MCL	MCLG	Range	Source of Contaminant
Fecal Coliform	0%	No more than 1 sample can be total coliform-positive	0%	None detected	Human and animal fecal waste. Fecal Coliform (mostly E Coli), is a portion of the Coliform bacteria group originating in the intestinal tract of warm-blooded animals that passes into the environment through feces.

Radioactive Contaminants

Constituent	Highest Level Detected	MCL	MCLG	Range	Source of Contaminant
Combined Radium 226/228 *	1.5 pCi/L	5.0 pCi/L	0.0 pCi/L	1.5 pCi/L	Erosion of natural deposits.

** Radioactive monitoring performed in 2018*

Inorganic Contaminants

Constituent	Highest Level Detected	MCL	MCLG	Range	Source of Contaminant
Arsenic	<0.002 ppm	0.010 ppm	0.0 ppm	0.00 - 0.002 ppm	Runoff from orchards, natural deposits; runoff from glass and electronics production waste.
Copper	0.0092 ppm	1.3 ppm	1.3 ppm	0.0092 - 0.0092 ppm	Corrosion of houshold plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride ***	0.3 ppm	4.0 ppm	4.0 ppm	0.3 - 0.3 ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Lead	<1.0 ppb	15 ppb	0.0 ppb	0.0 - 1.0 ppb	Corrosion of houshold plumbing systems; erosion of natural deposits.
Cyanide **	0.18 ppm	0.2 ppm (As Free Cyanide)	0.2 ppm (As Free Cyanide)	0.18 - 0.18 ppm	Discharge from fertilizer use leaching from septic tanks, sewage, erosion of natural deposits.
Chromium	<10.0 ppb	100 ppb	100 ppb	0.0 - 10.0 ppb	Discharge from steel and pulp mills; Erosion of natural deposits.
Nitrate	0.06 ppm	10 ppm	10 ppm	0.06 - 0.06 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite *	0.06 ppm	1.0 ppm	1.0 ppm	0.06 - 0.06 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

** Monitoring performed in 2014. ** Monitoring performed in 2020. *** Monitoring performed in 2021.*

Disinfection Byproducts

Constituent	Average Level	MCL	MCLG	Range	Source of Contaminant
Total Trihalomethanes	<4.0 ppb	80 ppb	N/A	0.0 - 4.0 ppb	Byproduct of drinking water chlorination.
Haloacetic Acids HAA5	1.9 ppb	60 ppb	N/A	1.9 - 1.9 ppb	Byproduct of drinking water chlorination.
Chloramines	3.55 ppm	MRDL 4.0 ppm	MRDLG 4.0 ppm	2.73 - 4.03 ppm	Disinfectant used to control microbes.

Southmost Regional Water Authority
Secondary and Other Constituents Not Regulated* (No associated adverse health effects)

Constituent	Average Level	Secondary Limit	Range	Source of Contaminant
Calcium *	24.1 ppm	N/A	24.1 - 24.1 ppm	Abundant naturally occurring element.
Chloride	416 ppm	300 ppm	416 - 416 ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
Hardness as CaCO3 *	77.3 ppm	N/A	77.3 - 77.3 ppm	Naturally occurring calcium.
Nickel *	<0.001 ppm	N/A	0.0 - 0.001 ppm	Abundant naturally occurring element.
Manganese *	0.0027 ppm	0.05 ppm	0.0027 - 0.0027 ppm	Abundant naturally occurring element.
pH	8.35 SU	>7.0 SU	7.96 - 8.54 SU	Measure of corrosivity of water.
Sodium *	293 ppm	N/A	293 - 293 ppm	Erosion of natural deposits; byproduct of field activity.
Sulfate	67 ppm	300 ppm	67 - 67 ppm	Naturally occurring; common industrial byproduct; byproduct of field activity.
Total Alkalinity as CaCO3	100 ppm	N/A	100 - 100 ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	896 ppm	1000 ppm	896 - 896 ppm	Total dissolved mineral constituents in water.
Zinc *	0.0073 ppm	5.0 ppm	0.0073 - 0.0073 ppm	Abundant naturally occurring element.

** Monitoring performed in 2021.*

The Texas Commission on Environmental Quality (TCEQ) sets minimum water quality standards for public drinking water. These standards include enforceable treatment technique requirements for drinking water. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites which can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

BROWNSVILLE
PUBLIC UTILITIES BOARD

1425 Robinhood Drive
Brownsville, TX 78521
(956) 983-6100
www.brownsville-pub.com

DRINKING WATER QUALITY REPORT

JUNE 2023

BROWNSVILLE
PUBLIC UTILITIES BOARD

Public Water Supply
ID No. 0310001

Brownsville Public Utilities Board Provides Safe Drinking Water

We're lucky. We're lucky that we avoided any type of drought restrictions for so many years. Many just assume that safe drinking water will always be there when the sink is on, but last year showed we can't rely on luck alone for our drinking water supply.

2022 was the first year since the 1990s that BPUB has had to initiate Stage 2 of its drought plan, and with no relief currently in sight, there's a very good chance that we might once again go into stage 2 when the heat of summer sets in.

BPUB is already doing its part to help by creating additional storage capacity for water by dredging the city's resacas. BPUB is also looking into expanding the treatment capacity of the Southmost Regional Water Authority (SRWA) plant, which treats water independent of the Rio Grande.

But BPUB also needs your help during this time. Because it's not possible to create new water, we should look for ways to use less water to make what we have go further.

Here are some tips on how to help conserve water:
- Avoid using water for nonessential purposes, like spraying the driveway or sidewalks, unless for safety.
- Water the yard early (before 7 a.m.) or late (after 7 p.m.)
- Check your home for leaks and make any needed repairs.

If we all come together, we can ensure that we make the most of the resources that we have. Want to learn more? Visit the BPUB website at www.brownsville-pub.com to find more ways to make your home more efficient.

Sincerely,

Marilyn D. Gilbert
General Manager and CEO

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (956) 983-6100.

We Welcome Your Comments

Public participation and education are important elements of our water quality effort. To find out more information about your drinking water, you are invited to the next meeting of our Public Utilities Board Consumer Advisory Panel (PUBCAP).

Note: PUBCAP meetings are typically on the third Wednesday of every month. The BPUB Board of Directors meets the second Monday of every month. Please check the BPUB website for agendas and meeting details: www.brownsville-pub.com.

Date: July 19, 2023
Time: 5:30 PM
Location: Board Room
Annex Building
1425 Robinhood Drive
Brownsville, Texas 78520

Or

Contact the Communications and Public Relations Department at (956) 983-6271.

All Drinking Water May Contain Contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants in the water does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Secondary constituents such as calcium, sodium or iron, which are often found in drinking water, can cause taste, color and odor problems. These secondary constituents are regulated by the state of Texas, not the EPA. The constituents are not causes for health concern. For more information, please call the BPUB Analytical Lab at (956) 983-6100.

Special Notice for the elderly, infants, cancer patients, people with HIV/AIDS or other immune problems:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised people, such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing treatment with steroids, and people with HIV/AIDS or other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800) 426-4791.

Source Water Susceptibility Assessment

Our drinking water is obtained from surface water sources (Rio Grande, WTP 1 – 94 13th St., WTP 2 – 1425 Robinhood Rd.) and groundwater sources (SRWA). A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commission on Environmental Quality. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus our source water protection strategies. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: https://www.tceq.texas.gov/gis/swaview. Further details about sources and source-water assessments are available at Drinking Water Watch at the following URL: http://dww2.tceq.texas.gov/DWW/. For more information on water assessment and protection efforts at our system, please contact the BPUB's Environmental Services Department at (956) 983-6100.

State Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board for the time period of January through December 2022, our system lost an estimated 665,091,611 gallons (9.4%) of water through main breaks, leaks and other causes. If you have any questions about the water loss audit, please call 956-983-6684.

About the Tables

The following tables contain a listing of the chemical contaminants which were detected in small amounts. In addition to the contaminants listed in the attached tables, the Brownsville Public Utilities Board tested for 170 other contaminants, including mercury and silver, that were NOT detected in your drinking water.

This data is taken from 2022 monitoring results, except where indicated. Most of the contaminants detected and listed in the table on the following page are from natural deposits.

Contaminants that may be present in source water before treatment include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

The following list is provided to indicate the smallness of the units used to measure contaminants:

- Inorganic contaminants, such as salts and metals, which can be naturally occurring result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides or herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- 1 part per million (ppm) is the equivalent of one packet of artificial sweetener sprinkled into 250 gallons of iced tea.
- 1 part per billion (ppb) is the equivalent of one packet of artificial sweetener sprinkled in an olympic-sized swimming pool.

Brownsville Public Utilities Board
Monitoring Period (June 2021)
Residential LEAD AND COPPER RULE MONITORING

Constituent	90th Percentile	50 sites tested, Number exceeding action level	Action Level	Likely Source of Contaminant
Lead	0.0ppb	None	15.0 ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	0.336 ppm	None	1.3 ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Lead and Copper monitoring at residential sites is performed on a tri-annual basis. Analysis performed in 2021.

Comments: In addition to the contaminants listed in the attached tables, the BPUB tested for 170 other contaminants that were not detected.

Constituents DETECTED In Your Water

DEFINITIONS:

Maximum Contaminant Level (MCL) – The highest level of contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is not known or expected health risk. MCLGs allow for a margin of safety.
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 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.
Action Level – The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
Level 1 Assessment – Study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment – Detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system multiple occasions.
Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.
Nephelometric Turbidity Units (NTU) – A measure of turbidity (amount of silt and particulates in water).
pCi/L – Picocuries per liter (a measure of radioactivity)
N/A – Not Applicable

MICROBIOLOGICAL CONTAMINANTS

Constituent	Highest No. of Positive	MCL	MCLG	Range	Likely Source of Contaminant
T. Coliform	1.5%	Presence of bacteria in 5% of monthly samples	0%	0 - 1.5%	Naturally present in Environment
Fecal Coliform	0%	A routine sample and repeat sample are total coliform positive and one is also fecal coliform or E. Coli positive	0%	0%	Human and Animal fecal waste. Fecal Coliform (mostly E. Coli), is a portion of the Coliform bacteria group originating in the intestinal tract of warm-blooded animals that passes into the environment as feces.

RADIOACTIVE CONTAMINANTS *

Constituent	Highest Level Detected	MCL	MCLG	Range	Likely Source of Contaminant
Gross Beta *	6.0 pCi/L	50 pCi/L	0.0 pCi/L	4.4 - 7.6 pCi/L	Decay of natural and man-made deposits
Radium 228 *	1.17 pCi/L	5.0 pCi/L	0.0 pCi/L	<1.0 - 1.17 pCi/L	Decay of natural and man-made deposits

** Radioactive monitoring performed in 2017.*

INORGANIC CONTAMINANTS

Constituent	Average Level	MCL	MCLG	Range (Min - Max)	Likely Source of Contaminant
Arsenic	0.0045 ppm	0.010 ppm	0.0 ppm	< 0.0020 - 0.0045 ppm	Runoff from orchards; natural deposits; run off from glass and electronics production waste
Copper	0.01 ppm	1.3 ppm	1.3 ppm	0.0086 - 0.0114 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Barium	0.0954 ppm	2.0 ppm	2.0 ppm	0.0928 - 0.098 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	0.07 ppm	0.2 ppm (As Free Cyanide)	0.2 ppm (As Free Cyanide)	0.06 - 0.08 ppm	Discharge from fertilizer use: leaching from septic tanks, sewage; erosion of natural deposits
Nitrate	1.16 ppm	10 ppm	10 ppm	0.2 - 2.11 ppm	Runoff from fertilizer use: leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	0.66 ppm	4.0 ppm	4.0 ppm	0.62 - 0.7 ppm	Water additive which promotes strong teeth: erosion of natural deposits; discharge from fertilizer and aluminum factories

DISINFECTION BY-PRODUCTS

Constituent	Average Level	MCL	MCLG	Range (Min - Max)	Likely Source of Contaminant
Total Trihalomethanes	28.7 ppb	80 ppb	N/A	10.3 - 63.7 ppb	By-product of drinking water chlorination
Haloacetic Acids HAA5	14.5 ppb	60 ppb	N/A	1.7 - 25.6 ppb	By-product of drinking water chlorination
Chloramines	3.81 ppm	MRDL 4.0 ppm	MRDLG 4.0 ppm	0.55 - 5.80 ppm	Disinfectant used to control microbes
Chlorine Dioxide	30 ppb	MRDL 800 ppb	MRDLG 800 ppb	10 - 100 ppb	Disinfectant used to control microbes
Chlorite	0.33 ppm	1.0 ppm	MRDLG 0.8 ppm	0.09 - 0.73 ppm	By-product of disinfection with chlorine dioxide

TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set,unless a TOC violation is noted in the violation section.

Turbidity (NTU) - State Regulations: Turbidity must stay below 0.3 NTU 95% of the time

Constituent	Average	MCL	MCLG	Range (Min - Max)	Likely Source of Contaminant
Turbidity	0.05 NTU	0.30 NTU	N/A	0.02 - 0.26 NTU	Soil runoff

Brownsville Public Utilities Board
Secondary and Other Constituents Not Regulated
(No associated adverse health effects)

Constituent	Average Level	Secondary Limit	Range (Min - Max)	Likely Source of Contaminant
Aluminum	<0.02 ppm	0.05 - 0.2 ppm	0.0 - <0.02 ppm	Erosion of natural deposits; residual from some surface water treatment process.
Calcium	97 ppm	N/A	64.9 -129 ppm	Abundant naturally occurring element.
Chloride	239 ppm	300 ppm	167 - 310 ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
Hardness as CaCO3	382 ppm	N/A	277 - 486 ppm	Naturally occurring calcium.
Nickel	3.1 ppb	N/A	1.6 - 4.5 ppb	Abundant naturally occurring element.
pH	8.1 SU	>7.0 SU	7.8 - 8.3 SU	Measure of corrosivity of water.
Sodium	203 ppm	N/A	152 - 253 ppm	Erosion of natural deposits; byproduct of oil field activity.
Sulfate	338 ppm	300 ppm	251 - 425 ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
Total Alkalinity as CaCO3	140 ppm	N/A	118 - 161 ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	1096 ppm	1000 ppm	851 - 1340 ppm	Total dissolved mineral constituents in water.
Zinc	<0.005 ppm	5.0 ppm	<0.005 - <0.005* ppm	Abundant naturally occurring element.

* All Values reported were below detection Limits