

# 2020

# Annual Water Quality Report

## Western Municipal Water District

Issued in July 2021



# A LETTER FROM THE GENERAL MANAGER

## Dear valued Western customer,

Western Municipal Water District (Western) is presenting to you its annual water quality report for 2020. This annual report, also known as the Consumer Confidence Report, shows how Western continued to provide safe, reliable drinking water throughout 2020 during an unprecedented year of challenges.

The California State Water Resources Control Board (State Water Board) requires that Western delivers to its customers an annual copy of this report, which summarizes the results of water quality tests and provides specific details about the sources and quality of the water served to our community.

## As in past years, Western continues to meet or exceed all stringent drinking water quality standards set by the United States Environmental Protection Agency (EPA) and the State Water Board, Division of Drinking Water (DDW).

Western employs the essential highly skilled and qualified workforce needed to operate a complex system, while also investing in critical infrastructure to make sure we continuously and consistently provide an exceptional customer experience as it relates to water quality and customer care. This past year, Western conducted a cost-of-service study that informed an increase in water and sewer service rates and charges that keep pace with the rising costs of purchasing imported and local water supplies, complying with EPA and DDW's drinking water regulatory requirements, and maintaining and operating the production, distribution, and collection systems to and from your property.

Western is here for you every day, guaranteeing service 24 hours a day, 7 days a week, 365 days a year. We think about water all day, so you don't have to. Conducting rigorous monitoring and testing of the water we serve is a top priority. When you turn your tap, rest assured Western has sampled from more than 105 locations within its distribution system, performing nearly 30,000 tests to monitor for contaminants and impurities to ensure the safety and quality of the drinking water delivered to your homes, businesses, and schools in Western's service area.

While the majority of Western's water supply flows through hundreds of miles of aqueducts and pipelines from Northern California, Western is dedicated to local partnerships to secure less expensive local water supply sources. We have succeeded in this effort, entering into and continuing supply agreements this past year with Eastern Municipal Water District, Elsinore Valley Municipal Water District and Riverside Public Utilities. Our groundwater wells in the Murrieta service area and desalination facilities also support our growing portfolio of local water supplies.

Customers are encouraged to read this report and reach out to our water quality team with any questions. For more information related to Western's water quality, please contact Albert Magallon, Operations Field Manager for Water Quality, at **951.789.5119** or via email to **amagallon@wmwd.com**.

Western is committed to providing you safe, reliable drinking water every day.

**THANK YOU FOR BEING A PART OF THE WESTERN FAMILY.**

  
**Craig Miller**  
GENERAL MANAGER



Guidelines set by the State Water Board for distributing this report allow for electronic delivery of the report instead of a paper copy delivered through the United States Postal Service. By providing these reports electronically, Western can reduce costs and eliminate paper waste associated with printing and mailing the full report to our more than 25,000 accounts.

Please note that you may change your delivery preference at any time. Western is happy to mail you a paper copy of this report upon request.

To request a paper copy of this report you can do so by calling us at 951.571.7119 or via email to **outreach@wmwd.com**.



# OUR MISSION

Western provides water supply, wastewater disposal and water resource management to the public in a safe, reliable, environmentally sensitive and financially responsible manner.

# OUR VISION

To enhance Western's leadership role by integrating the best in business processes and business systems while developing a leading workforce that continuously creates greater efficiency and value for our customers.

# WE GUARANTEE THE QUALITY AND RELIABILITY OF YOUR DRINKING WATER

Western is committed to providing reliable and safe drinking water to nearly one million people, both retail and wholesale customers who live, work, and play across a 527 square mile service area in western Riverside County.

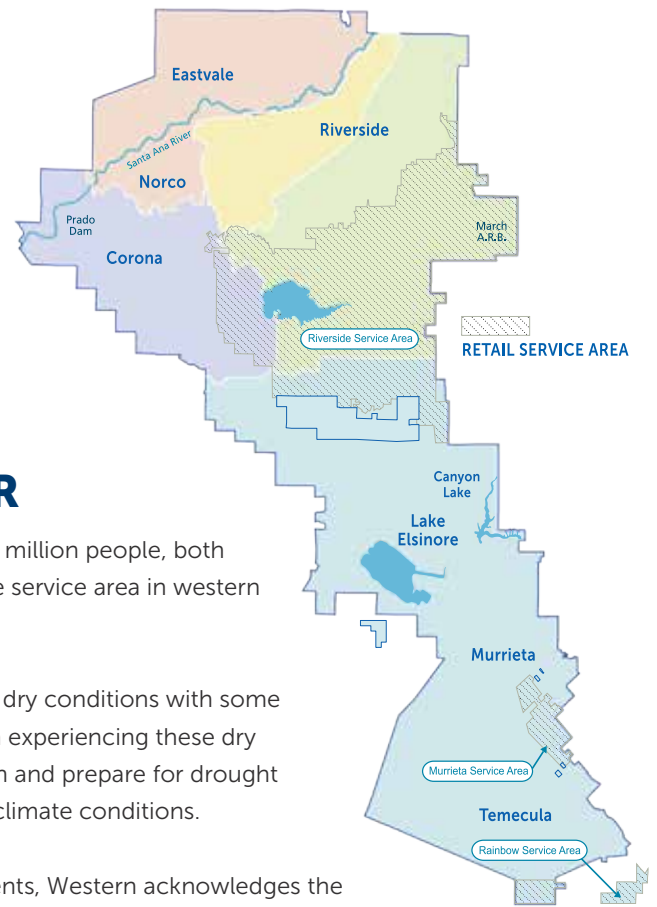
Despite substantial rain in 2019, California is once again experiencing prolonged dry conditions with some counties facing governor-declared droughts. The Inland Empire region has been experiencing these dry conditions for nearly 20 years. Western works on behalf of our customers to plan and prepare for drought every day by securing and responsibly managing water resources, regardless of climate conditions.

While Southern California supplies are stable, thanks to many proactive investments, Western acknowledges the current dry climate and is aware of the importance of water efficiency to secure and maintain reliable, high-quality water supplies today, and for future generations. With projects like the Victoria Recharge Basin, Arlington Desalter, Sterling Reservoir and Pump Station and La Sierra Pipeline, Western is prepared to support efficient water use by our customers 24 hours a day, 7 days a week, 365 days a year.

The drinking water that Western provides to homes, businesses, and schools meets and exceeds all state and federal water quality standards. The State Water Board, DDW, and the EPA are the agencies responsible for establishing and enforcing drinking water quality standards.

In addition to performing nearly 30,000 tests for more than 60 contaminants and impurities, Western also tests for unregulated chemicals that may have health risks, but do not have drinking water standards. Unregulated chemical monitoring helps the EPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals.

Western is a member of the Santa Ana Watershed Project Authority's (SAWPA) Emerging Constituents Task Force. The Task Force was organized by SAWPA in 2008 to work with the Regional Water Quality Control Board to help improve water quality along the Santa Ana River Watershed. The Task Force identifies emerging constituents of concern, which can include, chemicals of emerging concern, microconstituents, micropollutants, trace organics and other elements. The voluntary testing conducted by the Task Force investigates pharmaceuticals, pesticides, food additives and chemicals that may not yet have established water quality standards. By testing for emerging constituents, the Task Force is able to evaluate water quality in the Santa Ana River Watershed, in imported water, as well as in recycled water.





## YOUR DRINKING WATER IS CONSTANTLY MONITORED AND REGULATED, FROM SOURCE TO TAP.

- 💧 Serving 527 square miles
- 💧 Conducting nearly 30,000 tests
- 💧 105 sampling locations



## SPECIAL HEALTH INFORMATION

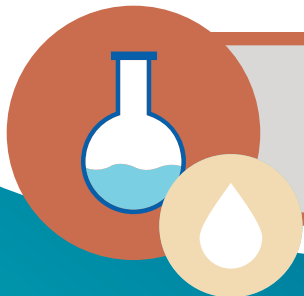
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals, which include those with cancer who are undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, and some elderly individuals and infants can be particularly at risk of infections.

Water quality monitoring indicates no Cryptosporidium organisms in the Mills or Skinner sources and finished water. Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised individuals are at greater risk of developing a life-threatening illness.

Western encourages immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may spread through means other than drinking water.

Nitrate in drinking water at levels above 10mg/L is a health risk for infants less than 6 months old. 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 can include shortness of breath and blueness of 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.

Individuals with special health concerns should seek advice about drinking water from their healthcare provider. Both the EPA and the Centers for Disease Control and Prevention have guidelines on ways to reduce the risk of infection from Cryptosporidium and other microbial contaminants and are available from the Safe Drinking Water Hotline, **800.426.4791** or online at [epa.gov/safewater](https://www.epa.gov/safewater).



**Western's nitrate level of 5.3 mg/L in our Riverside service area is well below the state and federal standard of 10 mg/L.**

# JUST THE FACTS ON PFAS

PFAS, short for per- and polyfluoroalkyl substances, are a group of more than 4,700 synthetic chemicals created to repel water, oil, grease and stains. The chemicals, dating to the 1940s have been found to be nearly indestructible over time. These chemicals appear in a range of industrial and everyday consumer products, including makeup, food wrappers, nonstick cookware, carpets, stain repellents, and firefighting foams.

Because PFAS have been so widely used, most Americans have been exposed to them through sources other than their drinking water. People ingest PFAS by eating, drinking, or breathing the chemicals when they are present in food, water, fire retardants, and consumer and industrial products. Based on research cited by the DDW, most people are exposed to PFAS through food—via food packaging, farming processes, or bioaccumulation (gradual chemical buildup).

Over time, PFAS also have accumulated in land near airports, industrial sites, military bases, and landfills. Once PFAS leach into the land, the chemicals can, in some cases, seep into the local groundwater.

Western continues to adhere to DDW's guidelines for the monitoring of PFAS. The State Water Board has established reporting levels for PFAS below the threshold set by the EPA.

**Testing has confirmed that Western's drinking water, most of which is imported from Northern California snowmelt, is safe and does not contain PFAS above state mandated notification levels. Learn more about these forever chemicals at [wmwd.com/PFAS](http://wmwd.com/PFAS).**

## LEAD AND COPPER RULE

The Lead and Copper Rule (LCR) was developed to protect public health by minimizing lead and copper levels in drinking water. The most common source of lead and copper in drinking water is corrosion of plumbing materials. Plumbing materials that can be made with lead and copper include pipes, solder, fixtures and faucets. The LCR established an action level of 15 ppb (parts per billion) for lead and 1.3 ppm (parts per million) for copper based on the 90th percentile level of tap water samples. If more than 10 percent of the samples are above either action level, further actions are required. The Maximum Contaminant Level Goal (MCLG) for copper is 1.3 ppm, there is no MCLG for lead. Lead and copper are sampled on a state mandated 3-year testing cycle with sampling conducted at selected customer taps.

The LCR requires Western to sample at locations that may be particularly susceptible to high lead or copper concentrations. With a tiered system for prioritizing sampling sites, federal regulations prioritize sampling for single-family structures with copper pipes that have lead solder installed after 1982. Western's sample locations remain the same for each sampling event unless voluntary participation from its customers is not sufficient to meet the minimum required samples per the LCR.

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.**

Western is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components beyond the meter. 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 two 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 **800.426.4791** or at [epa.gov/safewater/lead](http://epa.gov/safewater/lead).

## LEAD SAMPLING IN SINGLE-FAMILY STRUCTURES

Thirty-six homes were tested in the Riverside service area within the last 3-year testing cycle, completed in July 2019. Thirty-three homes were tested in the Murietta service area within the last 3-year testing cycle, completed in June 2019. Ten homes were tested in the Rainbow service area within the last 3-year testing cycle completed in June 2018.

| Lead and Copper Testing (Inorganic) Regulated at Customers' Tap | Lead (ppb) | Copper (ppm) |
|---|------------|--------------|
| Action Level @ 90th Percentile                                  | 15         | 1.3          |
| California Public Health Goal (PHG)                             | 0.2        | 0.3          |
| <b>Riverside</b>  |            |              |
| 90th percentile value   | ND         | 0.24         |
| # of homes over action level                                    | 1 of 36    | 0 of 36      |
| <b>Murietta</b>   |            |              |
| 90th percentile value   | ND         | 0.18         |
| # of homes over action level                                    | 0 of 33    | 0 of 33      |
| <b>Rainbow</b>  |            |              |
| 90th percentile value   | ND         | 0.48         |
| # of homes over action level                                    | 0 of 10    | 0 of 10      |

## LEAD SAMPLING IN SCHOOLS

No schools requested sampling for lead in 2020. To schedule lead testing for your school, contact Western's Water Quality team at **951.789.5119**.





# 2020 WATER QUALITY TABLE



|  | Units of Measure | State/Fed MCL [MRDL]        | PHG (MCLG) [MRDLG] | Detection Limit for Reporting (DLR) | Riverside Service Area <sup>(a)</sup> |           |                        |           | Murrieta <sup>(b)</sup> / Rainbow Service Area <sup>(c)</sup> |           |                          |           | Primary Sources   |  |
|--|------------------|-----------------------------|--------------------|-------------------------------------|---------------------------------------|-----------|------------------------|-----------|---|-----------|--------------------------|-----------|---|--|
|  |                  |                             |                    |                                     | Local Groundwater                     |           | Mills Filtration Plant |           | Local Groundwater   |           | Skinner Filtration Plant |           |   |  |
|  |                  |                             |                    |                                     | Average                               | Range     | Average                | Range     | Average   | Range     | Average                  | Range     |   |  |
| <b>Primary Drinking Water Standards — Mandatory Health Related Standards</b> |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| <b>Clarity</b>   |                  |                             |                    |                                     |                                       |           |                        | Highest   | % ≤ 0.3   |           |                          | Highest   | % ≤ 0.3   |  |
| Combined Filter Effluent Turbidity   | NTU and %        | See Footnote <sup>(d)</sup> | NA                 | NA                                  | ---                                   | ---       | 0.09                   | 100       | ---   | ---       | 0.09                     | 100       | Soil runoff   |  |
| <b>Inorganic Chemicals</b>   |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| Aluminum   | ug/L             | 1000                        | 600                | 50                                  | ND                                    |           | ND                     | ND - 93   | ND  |           | 108                      | ND - 200  | Erosion of natural deposits; residue from some surface water treatment processes  |  |
| Arsenic  | ug/L             | 10                          | 0.004              | 2                                   | NA                                    | ND - 3.6  | ND                     | ND        | 3.5   | 2.2 - 5.6 | ND                       | ND        | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes  |  |
| Fluoride   | mg/L             | 2                           | 1                  | 0.1                                 | 0.5                                   | 0.4 - 0.5 | 0.8                    | 0.1 - 0.9 | 0.3   |           | 0.7                      | 0.6 - 0.9 | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories              |  |
| Nitrate (N)  | mg/L             | 10                          | 10                 | 0.4                                 | 5.3                                   | 3.9 - 6.7 | 0.6                    |           | ND  | ND        | ND                       |           | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits                           |  |
| <b>Radiological</b>  |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| Gross Alpha  | pCi/L            | 15                          | (0)                | 3                                   | No Data                               |           | ND                     | ND - 4    | ND  |           | ND                       | ND - 3    | Erosion of natural deposits   |  |
| Gross Beta   | pCi/L            | 50                          | (0)                | 4                                   | No Data                               |           | ND                     | ND - 4    | No Data   |           | ND                       | ND - 5    | Decay of natural and man-made deposits  |  |
| Radium 228   | pCi/L            | 5                           | 0.019              | 1                                   | NA                                    | ND - 2.4  | ND                     |           | No Data   |           | ND                       | ND - 1    | Erosion of natural deposits   |  |
| Uranium  | pCi/L            | 20                          | 0.43               | 1                                   | 6.4                                   | 4.3 - 8.5 | ND                     | ND - 2    | ND <sup>(e)</sup>   |           | 2                        | ND - 2    | Erosion of natural deposits   |  |
| <b>Secondary Standards - Aesthetic Standards</b>                             |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| Aluminum   | ug/L             | 200                         | 600                | 50                                  | ND                                    |           | ND                     | ND - 93   | ND  |           | 108                      | ND - 200  | Runoff/leaching from natural deposits   |  |
| Chloride   | mg/L             | 500                         | NA                 | NA                                  | 36                                    | 33 - 39   | 61                     | 60 - 62   | 94  | 90 - 99   | 86                       | 81 - 92   | Runoff/leaching from natural deposits; seawater influence   |  |
| Sulfate  | mg/L             | 500                         | NA                 | 0.5                                 | 71                                    | 67 - 76   | 42                     | 41 - 43   | 65  | 63 - 67   | 180                      | 152 - 208 | Runoff/leaching from natural deposits; industrial wastes  |  |
| Total Dissolved Solids (TDS)   | mg/L             | 1000                        | NA                 | NA                                  | 361                                   | 290 - 390 | 248                    | 240 - 255 | 318   | 290 - 340 | 530                      | 472 - 588 | Runoff/leaching from natural deposits   |  |
| Color  | Units            | 15                          | NA                 | NA                                  | ND                                    | ND        | 2                      | 1 - 3     | ND  | ND        | 2                        | 1 - 2     | Naturally-occurring organic materials   |  |
| Odor   | TON              | 3                           | NA                 | 1                                   | ND                                    | ND        | 2                      |           | ND  | ND        | 2                        |           | Naturally-occurring organic materials   |  |
| Specific Conductance   | umhos            | 1600                        | NA                 | NA                                  | 581                                   | 540 - 640 | 447                    | 439 - 455 | 573   | 520 - 600 | 876                      | 796 - 956 | Substances that form ions in water  |  |
| pH   | pH units         | NA                          | NA                 | NA                                  | 8.2                                   | 6.9 - 10  | 8                      | 8.3 - 8.5 | 8.6   | 8.0 - 8.9 | 8.1                      |           | Physical Property   |  |
| Turbidity <sup>(f)</sup>   | NTU              | 5                           | NA                 | 0.1                                 | 0.11                                  | ND - 0.29 | ND                     | ND        | 0.2   | 0.1 - 0.2 | ND                       | ND        | Soil runoff   |  |
| <b>Unregulated Contaminant Monitoring</b>                                    |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| Chlorate   | ug/L             | NA                          | NL = 800           | 20                                  | No Data                               |           | 27                     |           | No Data   |           | 34                       |           | Byproduct of drinking water chlorination; industrial processes  |  |
| Manganese <sup>(g)</sup>   | ug/L             | 50                          | NL = 500           | 0.4                                 | ND                                    | ND        | 3.40                   | 1.4 - 6.6 | 5.8   | 5.6 - 5.9 | 13.7                     | 5.6 - 23  | Leaching from natural deposits  |  |
| N-Nitrosodimethylamine (NDMA)  | ng/L             | NA                          | 3; NL=10           | 2                                   | ND                                    |           | 2.5                    |           | No Data   |           | 4.2                      |           | Byproduct of drinking water chlorination; industrial processes  |  |
| Germanium <sup>(g)</sup>   | ug/L             | NA                          | NA                 | 0.3                                 | ND                                    | ND - 0.44 | ND                     | ND        | ND  | ND        | ND                       | ND        | Naturally-occurring element; byproduct of zinc ore processing; used in solar, electronics and optic systems                           |  |
| Perfluorooctanoic Acid (PFOA)  | ng/L             | NA                          | NL = 5.1           | NA                                  | 4.1                                   | 3.2 - 4.5 | ND                     |           | ND <sup>(h)</sup>   |           | ND                       |           | Industrial chemical factory discharges; runoff/leaching from landfills; used in fire-retarding foams and various industrial processes |  |
| Perfluorooctanesulfonic Acid (PFOS)  | ng/L             | NA                          | NL = 6.5           | NA                                  | 5.4                                   | 3.7 - 6.4 | ND                     |           | ND <sup>(h)</sup>   |           | ND                       |           |   |  |
| Perfluorohexanesulfonic Acid (PFHxS)   | ng/L             | NA                          | NA                 | NA                                  | 4.0                                   | 2.9 - 5.5 | ND                     |           | ND <sup>(h)</sup>   |           | ND                       |           |   |  |
| Perfluorobutanesulfonic Acid (PFBS)  | ng/L             | NA                          | NA                 | NA                                  | 3.4                                   | 2.7 - 4   | ND                     |           | ND <sup>(h)</sup>   |           | ND                       |           |   |  |
| Perfluorohexanoic Acid (PFHxA)   | ng/L             | NA                          | NA                 | NA                                  | 4.7                                   | 4.3 - 5.2 | 2.6                    |           | ND <sup>(h)</sup>   |           | ND                       |           |   |  |
|  |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| <b>Other Parameters Tested</b>   |                  |                             |                    |                                     |                                       |           |                        |           |   |           |                          |           |   |  |
| Alkalinity   | mg/L             | NA                          | NA                 | NA                                  | 162                                   | 140-170   | 76                     | 75 - 76   | 82  | 81 - 84   | 113                      | 105 - 121 | Runoff/leaching of natural deposits   |  |
| Boron  | ug/L             | NA                          | NL=1000            | 100                                 | 130                                   |           | 140                    |           | No Data   |           | 130                      |           | Runoff/leaching from natural deposits; industrial wastes  |  |
| Calcium  | mg/L             | NA                          | NA                 | NA                                  | 65                                    | 61 - 69   | 22                     | 21 - 22   | 21  | 18 - 22   | 62                       | 52 - 72   | Runoff/leaching from natural deposits   |  |
| Hardness   | mg/L             | NA                          | NA                 | NA                                  | 202                                   | 190 - 210 | 89                     | 84 - 94   | 53  | 47 - 56   | 242                      | 211 - 273 | Runoff/leaching from natural deposits   |  |
| Magnesium  | mg/L             | NA                          | NA                 | NA                                  | 9                                     | 8 - 10    | 9.8                    | 9.7 - 10  | ND  | ND        | 23                       | 20 - 26   | Runoff/leaching from natural deposits   |  |
| Potassium  | mg/L             | NA                          | NA                 | NA                                  | 3.0                                   | 2.7 - 3.3 | 2.5                    |           | 0.8   | ND - 1.3  | 4.4                      | 4.0 - 4.8 | Salt present in the water; naturally-occurring  |  |
| Sodium   | mg/L             | NA                          | NA                 | NA                                  | 43                                    | 40 - 44   | 53                     | 51 - 55   | 98  | 96 - 100  | 87                       | 76 - 98   | Salt present in the water; naturally-occurring  |  |

| Monitored in the distribution system                    |                  |                      |                    |                                     |                                       |           |                         |            |                                     |            |   |
|---|------------------|----------------------|--------------------|-------------------------------------|---------------------------------------|-----------|-------------------------|------------|-------------------------------------|------------|---|
|   | Units of Measure | State/Fed MCL [MRDL] | PHG (MCLG) [MRDLG] | Detection Limit for Reporting (DLR) | Riverside Service Area <sup>(a)</sup> |           | Murrieta <sup>(b)</sup> |            | Rainbow Service Area <sup>(c)</sup> |            | Primary Sources   |
|   |                  |                      |                    |                                     | Average                               | Range     | Average                 | Range      | Average                             | Range      |   |
| <b>Disinfection By-products<sup>(d)</sup></b>           |                  |                      |                    |                                     | Highest LRAA                          |           | Highest LRAA            |            | Highest LRAA                        |            |   |
| Total Trihalomethanes (TTHMs)                           | ug/L             | LRAA = 80            | NA                 | 1                                   | 27.3                                  | 2.6 - 28  | 20                      | 6.4 - 17   | 31.3                                | 15 - 76    | Byproduct of drinking water disinfection via chlorination   |
| Haloacetic Acids (HAA5)                                 | ug/L             | LRAA = 60            | NA                 | 1                                   | 11.5                                  | ND - 28   | 10.9                    | ND - 6.2   | 15.6                                | 2.6 - 24   | Byproduct of drinking water disinfection via chlorination   |
| Bromate   | ug/L             | RAA = 10             | 0.1                | 1.0                                 | 4.3                                   | ND - 12   | 2.5                     | ND - 5.6   | 2.5                                 | ND - 5.6   | Byproduct of drinking water disinfection via ozonation at Mills and Skinner Filtration Plants only. |
| <b>Microbiological</b>                                  |                  |                      |                    |                                     |                                       |           |                         |            |                                     |            |   |
| Total Coliform <sup>(e)</sup>                           | %                | 5                    | (0)                | NA                                  | 0%                                    | 0 - 1%    | 0                       | 0          | 0                                   | 0          | Naturally present in the environment  |
| <b>Disinfectant</b>                                     |                  |                      |                    |                                     |                                       |           |                         |            |                                     |            |   |
| Chloramines   | mg/L             | [4]                  | [4]                | NA                                  | 1.28                                  | ND - 3.5  | 1.58                    | ND - 5.42  | 1.65                                | 0.38 - 2.8 | Drinking water disinfectant added for treatment   |
| <b>Unregulated Contaminant Monitoring<sup>(f)</sup></b> |                  |                      |                    |                                     |                                       |           |                         |            |                                     |            |   |
| Haloacetic Acids (HAA5)                                 | ppb              | NA                   | NA                 | NA                                  | 6.4                                   | ND - 28   | 7.8                     | 3.5 - 15   | No data                             |            | Byproduct of drinking water chlorination  |
| Haloacetic Acids (HAA5Br)                               | ppb              | NA                   | NA                 | NA                                  | 5.6                                   | ND - 14.7 | 7.9                     | 3.9 - 14.1 | No data                             |            | Byproduct of drinking water chlorination  |
| Haloacetic Acids (HAA9)                                 | ppb              | NA                   | NA                 | NA                                  | 9.7                                   | ND - 29.9 | 13.4                    | 5.9 - 25.7 | No data                             |            | Byproduct of drinking water chlorination  |

## KIDNEY DIALYSIS / AQUARIUMS

Western uses chloramines to disinfect its drinking water. Customers who have unique water quality needs or use specialized home treatments, such as kidney dialysis machines, should make the necessary adjustments to remove chloramines.

Like chlorine, chloramines are toxic to dialysis water. Customers who have fish tanks in their homes or businesses should also take precautions to remove chloramines prior to adding water to tanks. Effective treatments include using granular activated carbon filters or chemicals specifically designed to remove chloramines.

## MEASUREMENT TERMS

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in safe 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. There are several secondary standards set by the state. The standards listed in our water quality table are the most conservative set by the state. Individual measurements above the secondary MCL listed in the table do not indicate an exceedance of the regulatory standard.

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

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

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

**Notification Level (NL):** Notification levels are health-based advisory levels established by DDW for chemicals in drinking water that lack MCLs.

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

**Public Health Goal (PHG):** The level of a contaminant in drinking water below for which there is no known or expected health risk. PHGs are set by the California Environmental Protection Agency.

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

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

## ABBREVIATIONS

|              |   |
|--------------|---|
| <b>MCL</b>   | Maximum Contaminant Level   |
| <b>MCLG</b>  | Maximum Contaminant Level Goal  |
| <b>MRDL</b>  | Maximum Residual Disinfectant Level   |
| <b>MRDLG</b> | Maximum Residual Disinfectant Level Goal                                    |
| <b>N/A</b>   | Not Applicable; no State or Federal Standards are established               |
| <b>ND</b>    | Non-Detect; sample was taken and chemical was not detected                  |
| <b>NL</b>    | Notification Level  |
| <b>NTU</b>   | Nephelometric Turbidity Units; a measure of the suspended material in water |
| <b>PHG</b>   | Public Health Goal  |
| <b>ppm</b>   | parts per million   |
| <b>ppb</b>   | parts per billion   |
| <b>ppt</b>   | parts per trillion  |
| <b>pCi/L</b> | picoCuries per Liter  |
| <b>Units</b> | A measure of the relative color or odor in the water                        |
| <b>µS/cm</b> | microSiemens per centimeter   |
| <b>&lt;</b>  | Less than   |
| <b>[ ]</b>   | Brackets refer to MRDL or MRDLG   |
| <b>mg/L</b>  | milligrams per liter (equivalent to ppm)                                    |
| <b>ug/L</b>  | micrograms per liter (equivalent to ppb)                                    |
| <b>ng/L</b>  | nanograms per liter (equivalent to ppt)                                     |

## FOOT NOTES

- The Riverside Service Area receives groundwater from the Bunker Hill Basin that is obtained from the City of Riverside to supplement imported water from Metropolitan Water District's Henry J. Mills Water Filtration Plant.
- The Murrieta Service Area receives local groundwater and imported water from Metropolitan Water District's Robert F. Skinner Water Filtration Plant to supplement groundwater.
- The Rainbow Service Area only receives imported water from Metropolitan Water District's Robert F. Skinner Water Filtration Plant.
- The turbidity level of the combined filter effluent at the Mills and Skinner Filtration plants shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time.
- Monitoring last conducted in 2014.
- Turbidity is a measure of the cloudiness of the water. High turbidity can hinder the effectiveness of disinfectants. We monitor it because it's a good indicator of water quality and the effectiveness of filtration systems, where used.
- This data was from Unregulated Contaminated Monitoring Regulation 4 (UCMR4) program that was conducted in 2018 through 2019.
- Voluntary monitoring conducted in 2019.
- Compliance to the MCL is based on a locational running annual average (LRAA) for TTHMs and HAA5 and a running annual average (RAA) for bromate, not the range of parameters. Individual measurements, shown in the range, that are above the MCL do not indicate an exceedance of the regulatory standard.
- The Murrieta and Rainbow system collect less than 40 samples per month, thus an exceedance of the Total Coliform MCL is if 2 or more samples in a month are total coliform positive.

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