Metropolitan’s water quality is equal to or better than what is required to safeguard public health.
Metropolitan is a regional wholesaler that provides water for 26 member public agencies to deliver—either directly or through their sub-agencies—to nearly 19 million people living in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members develop increased water conservation, recycling, storage and other resource-management programs.

Colorado River water is conveyed via Metropolitan’s 242-mile Colorado River Aqueduct from Lake Havasu on the California-Arizona border, to Lake Mathews near Riverside. Water supplies from Northern California are released from Lake Oroville and drawn from the crossroads of the Sacramento and San Joaquin rivers. They are transported in the State Water Project’s 444-mile California Aqueduct and serve urban and agricultural customers in the San Francisco Bay Area, as well as Central and Southern California.
On behalf of the Metropolitan Water District of Southern California, I am pleased to present this Annual Drinking Water Quality Report, which provides a summary of water quality and monitoring data for 2018.

To help ensure the delivery of a safe and reliable water supply to the nearly 19 million people in its service area, Metropolitan tests its water for almost 400 constituents and performs nearly 250,000 water quality tests annually on samples gathered throughout its vast distribution system. Analyses of these samples are undertaken at Metropolitan’s Water Quality Laboratory.

Metropolitan has been a national leader in providing safe drinking water that meets increasingly stringent standards. Cyanotoxins (produced by cyanobacteria) were an emerging nationwide issue. Although tests confirmed elevated levels of cyanotoxins at Diamond Valley Lake in 2018, the quality of Metropolitan’s drinking-water supply remained unaffected. Metropolitan’s Water Quality Laboratory in La Verne and smaller laboratories at the five water treatment plants received high marks in a comprehensive audit conducted under the state’s Environmental Laboratory Accreditation Program. Metropolitan also worked on a testing and monitoring plan for the Regional Recycled Water Advanced Purification Center, a demonstration facility that will take cleaned wastewater from the Sanitation Districts of Los Angeles County’s Joint Water Pollution Control Plant in Carson and apply a rigorous purification process to ensure the water is safe to reuse in the future.

A core feature of this report is a detailed table that begins on page 10, which illustrates monitoring results. Additionally, a Readers’ Guide is included to help explain the data reported. To learn about other water quality and supply issues, visit Metropolitan’s website at mwdh2o.com and go to the “About Your Water” section. You may also contact Dr. Mic Stewart, Metropolitan’s manager of water quality, at (213)217-5696 or mstewart@mwdh2o.com.

I trust you will find this report to be informative.

Sincerely,

Jeffrey Kightlinger
GENERAL MANAGER
Sedimentation basins, like the one shown here at Joseph Jensen Water Treatment Plant, are a key part of the water treatment process.

**DRINKING WATER AND YOUR HEALTH**

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.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by visiting the U.S. Environmental Protection Agency’s website at [www.epa.gov/safewater](http://www.epa.gov/safewater).
CONTAMINANTS THAT MAY BE PRESENT

Water agencies are required to use the following language to discuss the source of contaminants that may reasonably be expected to be found in drinking water, including tap water and bottled water.

Contaminants that may be present in source water include:

MICROBIAL CONTAMINANTS, such as viruses and bacteria, that may come from wastewater 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

ORGANIC CHEMICAL CONTAMINANTS, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications and septic systems

PESTICIDES AND HERBICIDES that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses

While not a source of Metropolitan supply, the Los Angeles River can generate significant stormwater runoff during wet winters.

RADIOACTIVE CONTAMINANTS that can be naturally occurring or be the result of oil and gas production and mining activities

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Water Resources Control Board, Division of Drinking Water, prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. California Department of Public Health and U.S. Food and Drug Administration regulations also establish limits for contaminants in bottled water that provide the same protection for public health.
PROTECTING WATER QUALITY AT THE SOURCE

Source water protection is an important issue for all of California. Large water utilities are required by the Division of Drinking Water to conduct an initial source water assessment, which is then updated through watershed sanitary surveys every five years. Watershed sanitary surveys examine possible sources of drinking water contamination and recommend actions to better protect these source waters. The most recent surveys for Metropolitan’s source waters are the Colorado River Watershed Sanitary Survey – 2015 Update, and the State Water Project Watershed Sanitary Survey – 2016 Update.

Source waters used by Metropolitan — the Colorado River and State Water Project — each have different water quality challenges. Both are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires and other watershed-related factors that could affect water quality. Treatment to remove specific contaminants can be more expensive than measures to protect water at the source, which is why Metropolitan and other water agencies invest resources to support improved watershed protection programs.
HEALTH ADVISORY FOR PEOPLE WITH WEAKENED IMMUNE SYSTEMS

Although Metropolitan treats water to meet drinking water standards, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, including those with cancer undergoing chemotherapy, persons who have undergone organ transplants or have HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers.

USEPA/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available at the USEPA Ground Water and Drinking Water website at www.epa.gov/safewater.

In order to protect water quality, boaters and anglers enjoying the world-class fishery at Metropolitan’s Diamond Valley Lake are strictly prohibited from making body contact with the water.

Wildfires, such as the Camp Fire seen near Lake Oroville in November 2018, can pose challenges for watersheds.

Fluorescence microscopy to detect and identify microorganisms is one of the many Water Quality Lab functions.
READERS’ GUIDE TO THE WATER QUALITY TABLE

The cornerstone of the water quality report is a table that lists the results of year-round monitoring for nearly 400 constituents. Only the constituents that are found in the water monitored by Metropolitan above the state detection limit for reporting are listed in the table.

Metropolitan met all primary drinking water standards in 2018.

By reading the table on Page 10 from left to right, you will learn the level of a constituent found in Metropolitan’s water and how that compares with the allowable state and federal limits. You will also see the measured range and average of the constituent and where it likely originated. The questions and answers on this and the following page, lettered A through I, will explain the important elements of the table.

A. What are the sources of water Metropolitan delivers?

Metropolitan imports water from Northern California through the Sacramento-San Joaquin Delta via the State Water Project, and from the Colorado River through its Colorado River Aqueduct. The table shows the percentage of the total water delivered by Metropolitan that is from the State Water Project. The remainder is from the Colorado River.

B. What is in my drinking water?

Your water may contain different types of chemicals (organic and inorganic), microscopic organisms (e.g., bacteria, algae, protozoa, and viruses) and radioactive materials (radionuclides), many of which are naturally occurring. Health agencies require monitoring for these constituents because at certain levels they could result in short- and long-term health risks. The column marked “Parameter” lists the constituents found in the water from Metropolitan’s treatment plants.

C. How are constituents reported?

“Units” describe how a constituent is reported. Usually constituent levels are measured in extremely tiny quantities such as parts per million, parts per billion and, in some cases, parts per trillion. Even small
concentrations of certain constituents can be a health concern. That is why regulatory standards are set at extremely low levels for certain constituents.

D. What are the maximum allowed levels for constituents in drinking water?
Regulatory agencies have maximum contaminant levels (MCLs) for constituents so that drinking water is safe and looks, tastes and smells good. A few constituents have the letters “TT” (treatment technique) in the MCL column because they do not have a numerical MCL. Instead, they have certain treatment requirements that have to be met to reduce their levels in drinking water. One of the constituents, total chlorine residual, has an MRDL (maximum residual disinfectant level) instead of an MCL.

E. Why are some of the constituents listed in the section labeled “Primary Standards” and others in the “Secondary Standards” section?
Primary standards are developed for the purpose of protecting the public from possible health risks associated with exposure to health-compromising constituents. In general, no health hazard is reasonably expected to occur when levels of a constituent are below a primary MCL.

Constituents that are grouped under the secondary standards section can affect the aesthetics (e.g., appearance, taste and smell) of water. These substances are not reasonably expected to have any potential health-related impacts unless they also have a primary standard. Some constituents (e.g., aluminum) have two different MCLs, one to protect against health-related impacts, and another to protect against non-health-related impacts.

F. What are Public Health Goals (PHGs) and Maximum Contaminant Level Goals (MCLGs)?
PHGs and MCLGs are targets or goals set by regulatory agencies for the water industry. They define a constituent level in the water that does not pose any known or expected risk to health. Often, it is not possible to remove or reduce constituents to the level of PHGs and MCLGs because it is technologically impossible or the cost for treatment is so expensive that it would make tap water unaffordable. That is why PHGs and MCLGs are considered goals to work toward, and not realistic standards that can be enforced. Similar goals exist for Maximum Residual Disinfectant Level Goals (see MRDLG, page 11, Abbreviations and Definitions).
G. **How do I know how much of a constituent is in my water and if it is at a level that is safe?**

With a few exceptions, regulatory requirements are considered satisfied if the average amount of a constituent found in tap water over the course of a year is no greater than the MCL. Some constituents do have special rules, described in the footnotes to the water quality table. These constituents do not have a numerical MCL, but instead a required treatment technique that when satisfied is listed in the column for the treatment plant effluent and distribution system (Column “H” of the table). The highest and lowest levels measured over a year are shown in the range. Requirements for safety, appearance, taste and smell are based on the average levels recorded and not the range.

Water agencies have specific procedures to follow if a constituent is found at levels higher than the MCL and considered a potential threat to public health. Information is shared immediately with the regulatory agencies. The regulatory agencies will determine when and how this information is shared with the public.

H. **What are the areas served by each of Metropolitan’s treatment plants and its distribution system?**

Metropolitan operates five water treatment plants, and the monitoring results for the supplies delivered by each of the plants are listed. Typically, the F.E. Weymouth Water Treatment Plant serves parts of Los Angeles County, the San Gabriel Valley and areas of Orange County. The Robert B. Diemer Water Treatment Plant also provides treated water to areas of Orange County and coastal Los Angeles. The Joseph Jensen Water Treatment Plant supplements local water supplies in the San Fernando Valley, Ventura County and central Los Angeles. The Robert A. Skinner Water Treatment Plant serves western Riverside County, Moreno Valley and San Diego County. Finally, the Henry J. Mills Water Treatment Plant also serves western Riverside County and Moreno Valley.

I. **How do constituents get into the water supply?**

The most likely source for each constituent is listed in the last column of the table. Some constituents are natural and come from the environment, others come from cities and farms, and some result from the water disinfection process itself. Some chemicals have found their way into California’s water supplies, making water treatment more difficult. Certain industrial processes — like dry cleaning, fireworks and rocket fuel manufacturing — have left constituents in the environment, as has the use of certain fertilizers and pesticides. Many of these chemicals have since been banned from use.
Metropolitan’s five water treatment plants serve a six-county area with a combined capacity of more than 2 billion gallons per day.
### 2018 WATER QUALITY TABLE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent State Water Project</td>
<td>%</td>
<td>NA</td>
</tr>
<tr>
<td>Combined Filter Effluent (CFE) Turbidity</td>
<td>NTU</td>
<td><strong>Soil runoff</strong></td>
</tr>
<tr>
<td>Total Coliform Bacteria</td>
<td>% Positive Monthly Samples</td>
<td><strong>Naturally present in the environment</strong></td>
</tr>
<tr>
<td>Heterotrophic Plate Count (HPC) Bacteria</td>
<td>CFU/mL</td>
<td><strong>Naturally present in the environment</strong></td>
</tr>
<tr>
<td>Giardia</td>
<td>cysts/200 L</td>
<td><strong>Human and animal fecal waste</strong></td>
</tr>
<tr>
<td>Aluminum</td>
<td>ppb</td>
<td>Residue from water treatment process; natural deposits erosion</td>
</tr>
<tr>
<td>Barium</td>
<td>ppb</td>
<td>Oil and metal refineries discharge; natural deposits erosion</td>
</tr>
<tr>
<td>Fluoride</td>
<td>ppm</td>
<td>Water additive for dental health</td>
</tr>
<tr>
<td>Nitrate (as Nitrogen)</td>
<td>ppm</td>
<td>Runoff and leaching from fertilizer use; sewage; natural deposits erosion</td>
</tr>
<tr>
<td>Gross Alpha Particle Activity</td>
<td>pCi/L</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Gross Beta Particle Activity</td>
<td>pCi/L</td>
<td>Decay of natural and man-made deposits</td>
</tr>
<tr>
<td>Uranium</td>
<td>pCi/L</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Total Trihalomethanes (TTHM) (Plant Core Locations and Distribution System)</td>
<td>ppb</td>
<td>Byproduct of drinking water chlorination</td>
</tr>
<tr>
<td>Sum of Five Haloacetic Acids (HAAS) (Plant Core Locations and Distribution System)</td>
<td>ppb</td>
<td>Byproduct of drinking water chlorination</td>
</tr>
<tr>
<td>Bromate</td>
<td>ppb</td>
<td>Byproduct of drinking water ozonation</td>
</tr>
<tr>
<td>Total Chlorine Residual</td>
<td>ppm</td>
<td>Drinking water disinfectant added for treatment</td>
</tr>
<tr>
<td>Total Organic Carbon (TOC)</td>
<td>ppm</td>
<td>Various natural and man-made sources; TOC is a precursor for the formation of disinfection byproducts</td>
</tr>
</tbody>
</table>
SECONDARY STANDARDS - Aesthetic Standards

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Average</th>
<th>Range</th>
<th>Highest RAA</th>
<th>ND–1</th>
<th>ND–100</th>
<th>ND–75</th>
<th>ND–120</th>
<th>ND–200</th>
<th>ND–210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>ppb</td>
<td>200</td>
<td>500</td>
<td>600</td>
<td>124</td>
<td>124</td>
<td>94</td>
<td>54</td>
<td>79</td>
<td>96</td>
</tr>
<tr>
<td>Chloride</td>
<td>ppm</td>
<td>500</td>
<td>ND</td>
<td>Range</td>
<td>92–95</td>
<td>92–95</td>
<td>94</td>
<td>54–57</td>
<td>79–91</td>
<td>90–93</td>
</tr>
<tr>
<td>Color</td>
<td>Color Units</td>
<td>15</td>
<td>NA</td>
<td>Range</td>
<td>ND–1</td>
<td>ND–1</td>
<td>ND–1</td>
<td>1</td>
<td>ND–1</td>
<td>ND–1</td>
</tr>
<tr>
<td>Manganese</td>
<td>ppb</td>
<td>50</td>
<td>NL = 500</td>
<td>Range</td>
<td>Average</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>22</td>
<td>ND</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>TON</td>
<td>3</td>
<td>NA</td>
<td>Range</td>
<td>1–4</td>
<td>1–4</td>
<td>1–4</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>µS/cm</td>
<td>1,600</td>
<td>NA</td>
<td>Range</td>
<td>852–961</td>
<td>852–961</td>
<td>906</td>
<td>428–444</td>
<td>514–518</td>
<td>841–851</td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>ppm</td>
<td>1,000</td>
<td>NA</td>
<td>Range</td>
<td>523–607</td>
<td>523–607</td>
<td>565</td>
<td>229–244</td>
<td>272–283</td>
<td>510–526</td>
</tr>
</tbody>
</table>

Abbreviations and Definitions

- Average: Result based on arithmetic mean
- CFE: Combined Filter Effluent
- CFU: Colony-Forming Units
- HAAS: Sum of five haloacetic acids
- HPC: Heterotrophic Plate Count
- LRAA: Locational Running Annual Average; highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all the samples collected within a 12-month period.
- MCL: Maximum Contaminant Level - 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.
- MCLG: Maximum Contaminant Level Goal - 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 (USEPA).
- MRDL: Maximum Residual Disinfectant Level - 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.
- MRDLG: Maximum Residual Disinfectant Level Goal - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the effects of disinfectants to control microbial contaminants.
- NA: Not Applicable
- ND: Not Detected
- NL: Notification Level - Health-based advisory levels established by the state Division of Drinking Water for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Footnotes:

(a) Metropolitan monitors turbidity at the CFE locations using continuous and grab samples. Turbidity, a measure of cloudiness of the water, is an indicator of treatment performance. Turbidity was in compliance with the TT primary drinking water standard and the secondary drinking water standard of less than 5 NTU.
(b) Per the state’s Surface Water Treatment Rule, treatment techniques that remove or inactivate Giardia cysts will also remove HPC bacteria, Legionella, and viruses. Legionella and virus monitoring is not required.
(c) Compliance is based on at least 480 samples per month from treatment plant effluents and the distribution system.
(d) All distribution system samples had detectable total chlorine residuals, so no HPC was required. Metropolitan monitors HPCs to ensure treatment process efficacy.
(e) A single Giardia cyst was detected in one sample from the filter effluent at the Skinner water treatment plant, prior to the treated water reservoir and addition of final disinfectant. The monitoring method detects all cysts, regardless of whether they are alive or dead. The plant met all operational and regulatory requirements throughout the year, including at the time of this single sampling event, and there was no regulatory violation.
(f) Metropolitan was in compliance with all provisions of the state’s fluoridation system requirements.

Data from samples collected in 2017. Metropolitan’s required triennial monitoring (2020–2022) will be performed in 2020.

(g) Compliance with the state and federal MCLs is based on RAA or LRAA, as appropriate. Plant core locations for TTHM and HAAS are service connections specific to each of the treatment plant effluents.

(h) Compliance with the state and federal bromate MCL is based on RAA. No MCL exceedance occurred in the Mills or Weymouth treatment plant effluents.

(i) Compliance with odor threshold secondary MCL is based on RAA. Treatment plants begin quarterly monitoring if annual monitoring results are above 3.

(j) Metropolitan’s TDS compliance data are based on flow-weighted monthly composite samples reported twice per year (April and October). The 12-month statistical summary of flow-weighted data is reported in the “Other Detected Constituents That May be of Interest to Consumers.”
### OTHER DETECTED CONSTITUENTS THAT MAY BE OF INTEREST TO CONSUMERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>NL</th>
<th>Range Average</th>
<th>Diemer Plant</th>
<th>Jensen Plant</th>
<th>Mills Plant</th>
<th>Skinner Plant</th>
<th>Weymouth Plant</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalinity (as CaCO₃)</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>99–114</td>
<td>106</td>
<td>68–76</td>
<td>72</td>
<td>66–74</td>
<td>104–109</td>
</tr>
<tr>
<td>Boron</td>
<td>ppb</td>
<td>1,000</td>
<td>Range Average</td>
<td>130</td>
<td>140</td>
<td>160</td>
<td>120</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>52–65</td>
<td>58</td>
<td>19–21</td>
<td>20</td>
<td>16–20</td>
<td>54–58</td>
</tr>
<tr>
<td>Calcium Carbonate Precipitation Potential (CCPP) (as CaCO₃)</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>1.6–9.2</td>
<td>5.3</td>
<td>1.0–1.9</td>
<td>1.4</td>
<td>0.4–1.5</td>
<td>0.8–11</td>
</tr>
<tr>
<td>Chloride</td>
<td>ppb</td>
<td>800</td>
<td>Range Average</td>
<td>30</td>
<td>29</td>
<td>ND</td>
<td>43</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Corrosivity as Aggressiveness Index b</td>
<td>—</td>
<td>NA</td>
<td>Range Average</td>
<td>12.2–12.4</td>
<td>12.3</td>
<td>12.0</td>
<td>11.9–12.1</td>
<td>12.0–12.4</td>
<td>12.2–12.5</td>
</tr>
<tr>
<td>Corrosivity as Saturation Index c</td>
<td>—</td>
<td>NA</td>
<td>Range Average</td>
<td>0.47–0.51</td>
<td>0.49</td>
<td>0.26–0.28</td>
<td>0.27</td>
<td>0.15–0.31</td>
<td>0.54–0.59</td>
</tr>
<tr>
<td>Hardness (as CaCO₃)</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>219–262</td>
<td>240</td>
<td>84–94</td>
<td>89</td>
<td>86–98</td>
<td>218–238</td>
</tr>
<tr>
<td>Magnesium</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>21–25</td>
<td>23</td>
<td>9.5–9.9</td>
<td>9.7</td>
<td>11–12</td>
<td>21–22</td>
</tr>
<tr>
<td>N-Nitrosodimethylamine (NDMA)</td>
<td>ppt</td>
<td>10 PHG=3</td>
<td>Range Average</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>4.1</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td>Range Average</td>
<td>8.1</td>
<td></td>
<td>8.4–8.5</td>
<td>8.5</td>
<td>8.4–8.5</td>
<td>8.1–8.2</td>
</tr>
<tr>
<td>Potassium</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>4.0–4.8</td>
<td>4.4</td>
<td>2.4–2.5</td>
<td>2.4</td>
<td>2.8–2.9</td>
<td>4.0–4.5</td>
</tr>
<tr>
<td>Sodium</td>
<td>ppm</td>
<td>NA</td>
<td>Range Average</td>
<td>86–98</td>
<td>92</td>
<td>45–46</td>
<td>46</td>
<td>62–63</td>
<td>85–92</td>
</tr>
<tr>
<td>Sum of Five Haloacetic Acids (HAAS) d</td>
<td>ppb</td>
<td>MCL = 60</td>
<td>Range Average</td>
<td>2.4–4.1</td>
<td>3.1</td>
<td>2.6–3.9</td>
<td>3.2</td>
<td>4.3–5.9</td>
<td>4.9–8.9</td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS) e</td>
<td>ppm</td>
<td>MCL = 1,000</td>
<td>Range Average</td>
<td>325–647</td>
<td>516</td>
<td>236–254</td>
<td>243</td>
<td>228–302</td>
<td>323–627</td>
</tr>
<tr>
<td>Total Trihalomethanes (TTHM) d</td>
<td>ppb</td>
<td>MCL = 80</td>
<td>Range Average</td>
<td>15–24</td>
<td>19</td>
<td>7.7–46</td>
<td>15</td>
<td>15–61</td>
<td>13–41</td>
</tr>
</tbody>
</table>

### Abbreviations and Definitions

(please refer to the main table for other abbreviations and definitions)

- **Al**: Aggressiveness Index
- **CaCO₃**: Calcium Carbonate
- **CCPP**: Calcium Carbonate Precipitation Potential
- **NL**: Notification Level - The level at which notification of the public water system to SWRCB is required.
- **ppt**: parts per trillion or nanograms per liter (ng/L)
- **SI**: Saturation Index

### Footnotes

- (a) Positive CCPP = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Reference: Standard Methods (SM2330)
- (b) Al ≥ 12.0 = Non-aggressive water; Al ≤ 10.0 = Highly aggressive water. Reference: ANSI/AWWA Standard C400-93 (R98)
- (c) Positive SI = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative SI = corrosive; tendency to dissolve calcium carbonate. Reference: Standard Methods (SM2330)
- (d) HAAS and TTHM noncompliance samples collected at treatment plant effluents.
- (e) Statistical summary represents 12 months of flow-weighted data and values may be different than the TDS reported to meet compliance with secondary drinking water regulations.
Additional information about drinking water safety and standards can be found at:

- **STATE WATER RESOURCES CONTROL BOARD**
  DIVISION OF DRINKING WATER
  1001 I Street
  Sacramento, CA 95814
  (916) 449-5577
  [www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.html](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.html)

- **U.S. ENVIRONMENTAL PROTECTION AGENCY**
  OFFICE OF GROUND WATER AND DRINKING WATER
  1200 Pennsylvania Avenue, NW
  Mail Code 4606M
  Washington, DC 20460-0003
  [https://www.epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water)

- **CONSUMER INFORMATION**
  [www.epa.gov/CCR](http://www.epa.gov/CCR)

- **INFORMATION ON HOW DRINKING WATER STANDARDS ARE ESTABLISHED**
  [https://www.epa.gov/dwstandardsregulations](https://www.epa.gov/dwstandardsregulations)

Metropolitan’s Water Quality Laboratory in La Verne has a national reputation for excellence.
This report is very important to read or have translated. The sentences below reflect the diversity of Metropolitan's service area and read, “This report contains important information about your drinking water. Translate it, or speak with someone who understands it.”

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Japanese
この資料には、あなたの飲料水についての大切な情報を表しています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

Khmer
បញ្ជីនេះមានព័ត៌មានជាច្រើនអំពីទឹកក្រូចរបស់អ្នក។ មានអត្ថប្រយោជន៍សម្រាប់អ្នកប្រឈម។

Korean
이 보고서에는 귀하의 주변 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이 보고서를 번역하시거나, 내용을 이해하는 분과 상의하시는 것도 좋습니다.

Polish
Sprawozdanie zawiera ważne informacje na temat jakości wody w Twojej miejscowości. Poprosź kogoś o przetłumaczenie go lub porozmawiaj z osobą która je dobrze rozumie.

Russian
Содержит важную информацию о питьевой воде. Переведите его или попросите кого-нибудь, кто хорошо понимает текст, объяснить вам его содержание.

Spanish
Este informe contiene información importante acerca de su agua potable. Tradúzcalo o hable con alguien que lo entienda.

Tagalog
Ang ulat na ito ay naglalaman ng mahahalagang impormasyon tungkol sa pag-inom ng tubig. Mangyaring ipasalin ito, o kumausap sa isang taong nakakaintindi nito.

Vietnamese
Bản báo cáo này có chứa các thông tin quan trọng về nước uống. Hãy dịch, hoặc nói chuyện với ai đó hiểu bản báo cáo này.