Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. This year’s report covers calendar year 2019 drinking water quality testing and reporting.

The City of Tustin Water Services Division (City) vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards.

In some cases, the City goes beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. For example, the Orange County Water District (OCWD), which manages the groundwater basin, and the Metropolitan Water District of Southern California (MWDSC), which supplies imported treated surface water to the City, test for unregulated chemicals in our water supply. Unregulated chemical monitoring helps USEPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals.

Through drinking water quality testing programs carried out by OCWD for groundwater, MWDSC for treated surface water and the City for the distribution system, your drinking water is constantly monitored from source to tap for regulated and unregulated constituents. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Some of our data, though representative, are more than one year old.
Introduction

Through drinking water quality testing programs carried out by the Orange County Water District (OCWD) for groundwater, Metropolitan Water District of Southern California (MWDSC) for treated surface water, and the City of Tustin for the water distribution system, your drinking water is constantly monitored from source to tap for constituents that are regulated and unregulated.

Sources of Supply

The City’s water supply is a blend of local groundwater wells, and imported water connections originating from Northern California and the Colorado River by MWDSC via the Municipal Water District of Orange County (MWDOC). Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall, Groundwater Replenishment System (GWRS) recycled water, and imported water. The groundwater basin, which is managed by OCWD, is about 350 square miles. It lies beneath north and central Orange County, from Irvine to the Los Angeles County border and from Yorba Linda to the Pacific Ocean. More than 19 cities and retail water districts draw from the basin to provide water to homes and businesses.

Orange County’s Water Future

For years, Orange County has enjoyed an abundant, seemingly endless supply of high-quality water. However, as water demand continues to increase statewide, we must be even more conscientious about our water supply and maximize the efficient use of this precious natural resource.

OCWD implements and operates new and innovative water management and supply development programs, including water recycling, wetlands expansion, recharge facility construction, groundwater cleanup projects, storage programs, and water education programs for children through adults. MWDOC offers rebates and incentives to promote water-use efficiency and provides water education programs. Both agencies work cooperatively with Orange County retail water agencies to complete studies to assess water reliability in Orange County. These efforts are helping to enhance long-term countywide water reliability and water quality and a healthy water future for Orange County.

Your local and regional water agencies are committed to making the necessary investments today in new water management projects to ensure an abundant and high-quality water supply for generations to come.

Basic Information About Drinking Water Contaminants

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 land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water 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 be the result of oil and gas production or mining activities.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- **Pesticides and 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 by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and septic systems.

In order to ensure that tap water is safe to drink, USEPA and the DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline at (800) 426-4791, or online at www.epa.gov/safewater.

Immuno Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk to infection. These people should seek advice about drinking water from their health care providers.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from USEPA’s Safe Drinking Water hotline at (800) 426-4791, or on the web at www.epa.gov/safewater.

Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact Mike Grisso at (714) 361-4719. The Tustin City Council meets the first and third Tuesdays of every month at 7:00 pm in the City Council Chambers, 300 Centennial Way, Tustin, California. Please feel free to participate in these meetings.

For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791.
Federal and State Water Quality Regulations

Water Quality Issues that Could Affect Your Health

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWDSC joined a majority of the nation’s public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWDSC was in compliance with all provisions of the State’s fluoridation system requirements. Our local water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Additional information about the fluoridation of drinking water is available on these websites:

www.cdc.gov/fluoridation/
The level of a contaminant in drinking water is limited under California state regulations at a maximum dosage of 2 parts per million.

U.S. Centers for Disease Control and Prevention
1 (800) 232-4636 • www.cdc.gov/fluoridation/
State Water Resources Control Board,
Division of Drinking Water
www.waterboards.ca.gov/drinking_water/cert/fdrwater/Fluoridation.html

For more information about MWDSC’s fluoridation program, please call Edgar G. Dynally at (213) 217-5709 or email him at edynamally@mwdh2o.com.

What are Water Quality Standards?

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

• **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.

• **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.

• **Secondary MCLs:** Set to protect the odor, taste, and appearance of drinking water.

• **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

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

How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

• parts per million (ppm) or milligrams per liter (mg/L)
• parts per billion (ppb) or micrograms per liter (µg/L)
• parts per trillion (ppt) or nanograms per liter (ng/L)

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

• **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or unexpected risk to health. MCLGs are set by USEPA.

• **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.

• **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.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL</th>
<th>PHG</th>
<th>Avg. Local Groundwater</th>
<th>Avg. MWD Surface Water</th>
<th>Range of Detections</th>
<th>MCL Violation?</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2019 City of Tustin Drinking Water Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Groundwater and Metropolitan Water District Treated Surface Water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Radiologicals – Tested in 2017 and 2018**

- **Alpha Radiation (pCi/L)**: 15 (0) ≤ 3.9
- **Uranium (µCi/L)**: 20 0.14 – 0.9

**Inorganic Contaminants – Tested in 2019**

- **Fluoride (ppm)**: 2 0.18 – 0.9
- **Nitrate (ppm)**: 10 3.8
- **Silicon (ppb)**: 50 30
- **Selenium (ppb)**: 50 30

**Secondary Standards* – Tested in 2019**

- **Calcium (ppm)**: 89
- **Fluoride (ppm)**: 2
- **Nitrate (ppm)**: 10

**Unregulated Contaminants – Tested in 2019**

- **Sodium (ppm)**: 79.2
- **Nitrate (ppm)**: 3.8
- **Fluoride (ppm)**: 0.18
- **Reserve Water Quality Goal (WQG)**: 2

**Consumer Confidence Report (CCR)**

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements instituted during 2016. All water systems are required to comply with the state Total Coliform Rule. Effective April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule.

**Turbidity** – combined filter effluent Metropolitan Water District Diemer Filtration Plant

<table>
<thead>
<tr>
<th>Turbidity</th>
<th>Treatment Technique</th>
<th>Turbidity Measurements</th>
<th>TT Violation?</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Highest single turbidity measurement</td>
<td>0.3 NTU</td>
<td>0.05</td>
<td>No</td>
<td>Soil run-off</td>
</tr>
<tr>
<td>2) Percentage of samples less than 0.3 NTU</td>
<td>95%</td>
<td>100%</td>
<td>No</td>
<td>Soil run-off</td>
</tr>
</tbody>
</table>

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan’s treated water is a good indicator of effective filtration. Filtration is called a “treatment technique” (TT). A treatment process is required to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.
The new federal rule protects public health by ensuring the integrity of the drinking water distribution system by monitoring for the presence of microbes (i.e., total coliform and E. coli bacteria).

The USEPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and resolve potential issues.

Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an analysis to determine if any sanitary defects exist. If found, these must be corrected by the water system.

### About Lead in Tap Water

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. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in 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 at (800) 426-4791, or on the web at www.epa.gov/safewater/lead.

### Nitrate Advisory

Nitrate in drinking water at levels above 10 milligrams per liter (mg/L) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in a serious illness: symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you or anyone in your household is concerned about nitrate levels in your tap water, you should discuss this issue with your doctor.

### Entrained Air

If your tap water has a slightly “milky” appearance, you might be experiencing an interesting but harmless phenomenon known as “entrained air.”

The milky color in the water caused by tiny air bubbles is harmless and is related to the operation of City wells.

The air is dissolved under pressure in the groundwater, much like carbon dioxide in a bottle of soda. If your tap water is milky-colored and you want to confirm you are experiencing entrained air, rinse out a clear glass twice and then fill it with cold tap water. After a few moments, the water should begin to clear from the bottom of the glass to the top as the bubbles rise to the surface. If the water does not clear, please contact us.

### Source Water Assessments

**Imported (MWDSC) Water Assessment**

Every five years, MWDSC is required by DW0 to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent watershed sanitary surveys of its source waters supplies from Colorado River was updated in 2015 and the State Water Project was updated in 2016.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California’s State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (800) CALL-MWD (225-5693).

**Groundwater Assessment**

An assessment of the drinking water sources for the City was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: confirmed leaking underground storage tanks, dry cleaners, and gas stations.

The groundwater sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: known contaminant plumes, historic agricultural activities and application of fertilizers, and sewer collection systems.

A copy of the complete assessment is available at State Water Resources Control Board, Division of Drinking Water, 2 MacArthur Place, Suite 150, Santa Ana, California 92707.

You may request a summary of the assessment by contacting the City of Tustin Water Services at (714) 361-4719.

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**chemicals table**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Notification Level</th>
<th>PHG</th>
<th>Average Amount</th>
<th>Range of Detections</th>
<th>Most Recent Sampling Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromochloroacetic Acid (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>0.93</td>
<td>ND – 3.8</td>
<td>2019</td>
</tr>
<tr>
<td>Bromodichloroacetic Acid (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>0.31</td>
<td>ND – 1.3</td>
<td>2019</td>
</tr>
<tr>
<td>Chlorodibromometaacetic Acid (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>0.26</td>
<td>ND – 0.8</td>
<td>2019</td>
</tr>
<tr>
<td>Dibromoacetic Acid (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>0.97</td>
<td>ND – 2.1</td>
<td>2019</td>
</tr>
<tr>
<td>Dichloroacetic Acid (ppb)</td>
<td>n/a</td>
<td>MCLG = 0</td>
<td>1.1</td>
<td>ND – 5.1</td>
<td>2019</td>
</tr>
<tr>
<td>Monobromoacetic Acid (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>0.13</td>
<td>ND – 0.4</td>
<td>2019</td>
</tr>
<tr>
<td>Trichloroacetic Acid (ppb)</td>
<td>n/a</td>
<td>MCLG = 20</td>
<td>0.26</td>
<td>ND – 1.3</td>
<td>2019</td>
</tr>
</tbody>
</table>
This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Para más información o traducción, favor de contactar a Customer Service Representative. Telefono: (714) 573-3382.

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