Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. This year’s report covers calendar year 2016 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.
The Quality of Your Water Is Our Primary Concern

Sources of Supply

Orange County’s water supply is a blend of groundwater provided by OCWD and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via MWDSC. Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall and imported water. The groundwater basin is 350 square miles and 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 20 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 and MWDOC work cooperatively to evaluate new and innovative water management and supply development programs, including water reuse and recycling, wetlands expansion, recharge facility construction, ocean and brackish water desalination, surface storage and water use efficiency programs. These efforts are helping to enhance long-term countywide water reliability and water quality.

A healthy water future for Orange County rests on finding and developing new water supplies, as well as protecting and improving the quality of the water that we have today. 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 our future.

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.

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 from infections. 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 between 10 a.m. and 4 p.m. Eastern Time (7 a.m. to 1 p.m. in California).

Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact Joe Lozano at (714) 573-3178.

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.
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.

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 fluoride 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. In line with recommendations from the DDW, as well as the U.S. Centers for Disease Control and Prevention, MWDSC adjusted the natural fluoride level in imported treated water from Colorado River and State Water Project to the optimal range for dental health of 0.6 to 1.2 parts per million.

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:

U.S. Centers for Disease Control and Prevention
1 (800) 232-4636 • www.cdc.gov/fluoridation/

### Lead in U.S. Drinking Water

<table>
<thead>
<tr>
<th>Chemical</th>
<th>MCL</th>
<th>PHG</th>
<th>Avg. Groundwater Amount</th>
<th>Avg. Imported MWD Amount</th>
<th>Range of Detectable MCLs</th>
<th>MCL Violation?</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum (ppb)</td>
<td>5</td>
<td>1</td>
<td>0.16</td>
<td>ND</td>
<td>0.6 – 2.0</td>
<td>No</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Barium (ppb)</td>
<td>1</td>
<td>1</td>
<td>0.13</td>
<td>ND</td>
<td>0.6 – 1.2</td>
<td>No</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>4</td>
<td>4</td>
<td>0.7</td>
<td>0.6 – 0.9</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate (ppm as N)</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfate (ppm)</td>
<td>250</td>
<td>250</td>
<td>260</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2</td>
<td>1</td>
<td>0.18</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barium (ppm)</td>
<td>1</td>
<td>1</td>
<td>0.13</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>4</td>
<td>4</td>
<td>0.7</td>
<td>0.6 – 0.9</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate (ppm as N)</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfate (ppm)</td>
<td>250</td>
<td>250</td>
<td>260</td>
<td>ND</td>
<td>Erosion of Natural Deposits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### About Fluoride

Fluoride is a naturally occurring mineral that is found in many natural water sources. Fluoride is added to drinking water at Safe Water Fluoride Levels to help prevent tooth decay. Fluoride can be removed from water by boiling it or using a carbon or reverse osmosis filter.

### Additional Information

For more information on fluoride and other contaminants in your water, please contact the Safe Water Hotline at (800) 426-4791, or visit the Safe Water Website at www.epa.gov/safewater/lead.
Nitrate Advisory

At times, nitrate in your tap water may have exceeded one-half the MCL, but it was never greater than the MCL of 10 milligrams per liter (mg/L). Nitrate in your drinking water in 2016 ranged from non-detect to 7.2 mg/L. The following advisory is issued because in 2016 we recorded nitrate measurements in the drinking water supply which exceeded one-half the nitrate MCL.

Nitrate in drinking water at levels above 10 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 are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Entrained Air

If your tap water has a slightly “milky” appearance, you’re probably 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 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 DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

The most recent watershed sanitary surveys for MWDSC’s source waters are the Colorado River Watershed Sanitary Survey – 2015 Update, and the State Water Project Watershed Sanitary Survey – 2011 Update.

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.

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, 605 W. Santa Ana Blvd., Building 28, Room 325, Santa Ana, California 92701.

You may request a summary of the assessment by contacting the City of Tustin Water Services at (714) 573-3178.

The City’s water system had a water quality Monitoring & Reporting (M & R) violation during calendar year 2016. Although this incident was not an emergency and had no impact on public health, as our customers, you have a right to know what happened and what we did to correct the situation.

We are required to monitor your drinking water for specific contaminants on a regular basis and in response to monitoring results for specific contaminants. Water quality monitoring results are an indicator of whether or not our drinking water meets health standards. During July 2016, the City had a total coliform positive result in their distribution system. In response, the City conducted E. coli monitoring on five wells that were in operation the day of the positive distribution sample result, within 24 hours of being notified of the result. All results were negative, i.e., absent of E. coli. However, the City failed to collect samples from three other wells that were also in operation on the day of the positive result within 24 hours, which caused the violation. To return to compliance, the City collected samples from the three wells and analyzed the samples for E. coli, with all results being negative.

There is nothing you need to do at this time. The City corrected the violation, and we now analyze our wells weekly for bacteriological quality to ensure we do not receive a monitoring violation in the future.

City of Tustin Water Quality

Monitoring & Reporting Violation

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 as the bubbles rise to the surface. If the water does not clear, please contact us.

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).

2016 City of Tustin Distribution System Water Quality

<table>
<thead>
<tr>
<th>Disinfection Byproducts</th>
<th>MCL (MRDL/MRLDG)</th>
<th>Average Amount</th>
<th>Range of</th>
<th>MCL Violation?</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (ppb)</td>
<td>80</td>
<td>32</td>
<td>ND – 24.3</td>
<td>No</td>
<td>Byproducts of Chlorine Disinfection</td>
</tr>
<tr>
<td>Haloacids (ppb)</td>
<td>60</td>
<td>8</td>
<td>ND – 5.9</td>
<td>No</td>
<td>Byproducts of Chlorine Disinfection</td>
</tr>
<tr>
<td>Chlorine Residual (ppm)</td>
<td>(4 / 4)</td>
<td>0.9</td>
<td>ND – 1.1</td>
<td>No</td>
<td>Disinfectant Added for Treatment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aesthetic Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity (NTU)</td>
</tr>
</tbody>
</table>

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacids; twenty locations are tested monthly for color, odor and turbidity. Color and odor were not detected in 2016.

MRL – Maximum Residual Disinfectant Level; MRDL – Maximum Residual Disinfectant Level Goal

Hexavalent chromium is regulated with an MCL of 10 ppb but was not detected, based on the detection limit for purposes of reporting of 1 ppb.

Bacterial Quality

<table>
<thead>
<tr>
<th>MCL</th>
<th>MCLG</th>
<th>Highest Monthly Positive Samples</th>
<th>MCL Violation?</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.05</td>
<td>1%</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

No more than 5% of the monthly samples may be positive for total coliform bacteria. The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform (E. coli), constitutes an acute MCL violation.

During 2015, 44 residences were tested for lead and copper at the tap.

Lead was detected in five samples; three exceeded the regulatory action level. Copper was detected in 41 homes; none exceeded the regulatory action level.

A regulatory action level is the concentration of a contaminant which triggers treatment or other requirements that a water system must follow.

City of Tustin Water Quality

Monitoring & Reporting Violation

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We are required to monitor your drinking water for specific contaminants on a regular basis and in response to monitoring results for specific contaminants. Water quality monitoring results are an indicator of whether or not our drinking water meets health standards. During July 2016, the City had a total coliform positive result in their distribution system. In response, the City conducted E. coli monitoring on five wells that were in operation the day of the positive distribution sample result, within 24 hours of being notified of the result. All results were negative, i.e., absent of E. coli. However, the City failed to collect samples from three other wells that were also in operation on the day of the positive sample result within 24 hours, which caused the violation. To return to compliance, the City collected samples from the three wells and analyzed the samples for E. coli, with all results being negative.

There is nothing you need to do at this time. The City corrected the violation, and we now analyze our wells weekly for bacteriological quality to ensure we do not receive a monitoring violation in the future.

Unregulated Chemicals Requiring Monitoring in the Distribution System

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Notification Level</th>
<th>PHG</th>
<th>Average Amount</th>
<th>Range of</th>
<th>Most Recent Sampling Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride (ppm)</td>
<td>B0I</td>
<td>n/a</td>
<td>49</td>
<td>37 – 57</td>
<td>2013</td>
</tr>
<tr>
<td>Chromium, Hexavalent (ppb)**</td>
<td>MCL = 10</td>
<td>0.02</td>
<td>0.085</td>
<td>ND – 0.15</td>
<td>2013</td>
</tr>
<tr>
<td>Molybdenum, Total (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>4.9</td>
<td>4.6 – 5.4</td>
<td>2013</td>
</tr>
<tr>
<td>Strontium, Total (ppb)</td>
<td>n/a</td>
<td>n/a</td>
<td>970</td>
<td>920 – 1,100</td>
<td>2013</td>
</tr>
<tr>
<td>Vanadium, Total (ppb)</td>
<td>50</td>
<td>n/a</td>
<td>2.9</td>
<td>2.4 – 3.1</td>
<td>2013</td>
</tr>
</tbody>
</table>

**Hexavalent chromium is regulated with an MCL of 10 ppb but was not detected, based on the detection limit for purposes of reporting of 1 ppb. Hexavalent chromium was included as part of the unregulated chemicals requiring monitoring. **

City of Tustin Water Quality

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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 mas información ó traducción, favor de contactar a Customer Service Representative.

Telefondo: (714) 573-3382.

The Diemer Water Treatment Plant, located in the hills above Yorba Linda, processes up to 520 million gallons of clean water per day — enough to fill the Rose Bowl every 4 hours. The water is a blend from both the Colorado River Aqueduct and the State Water Project. At 212-acres, it’s one of the largest water treatment plants in the U.S. It provides nearly half of Orange County’s total water supply.

Water flowing from Diemer meets — or exceeds — all state and federal regulations. And it is kept safe from the treatment plant to your tap by constant testing throughout the distribution network. The City of Tustin Water Services monitors the water quality at all sources, reservoirs, and various points on the distribution system. In addition, the Orange County Water District performs testing on the City’s groundwater wells by analyzing for hundreds of compounds, many more than are required by state and federal laws and regulations. This constant surveillance ensures your drinking water stays within the requirements mandated by the federal Safe Drinking Water Act.

Your Water: Always Available, Always Assured

City of Tustin Water Services
300 Centennial Way
Tustin, California 92780

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