Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. This year’s report covers calendar year 2018 drinking water quality testing and reporting. Your City of San Juan Capistrano Utilities Department (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 City, which produces and treats local groundwater, and the Metropolitan Water District of Southern California (MWDSC), which supplies treated imported 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 to protect public health.

Through drinking water quality testing programs carried out by the City for local groundwater, treated groundwater and in its drinking water distribution system, and MWDSC for treated surface water, 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.

Your 2019 Water Quality Report
Sources of Supply
The City receives its water from three sources. Water is purchased from MWDSC. MWDSC’s imported water sources are a blend of State Water Project water from northern California, and water from the Colorado River Aqueduct. Furthermore, the City is supplied with treated water from the Ground Water Recovery Plant and one potable production well located in the Northern portion of the City.

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.
• **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.
• **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.
• **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.

Cryptosporidium

*Cryptosporidium* is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested their source water and treated surface water for *Cryptosporidium* in 2018 but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

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).

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.

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, the 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 the 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.

There are many places to go for additional information about the fluoridation of drinking water.

**U.S. Centers for Disease Control and Prevention:**
www.cdc.gov/fluoridation/

**State Water Resources Control Board, Division of Drinking Water**
www.waterboards.ca.gov/dinking_water/certlic/dinkingwater/fluoridation.html

For more information about MWDSC’s fluoridation program, please contact Edgar G. Dymally at (213) 217-5709 or at edymally@mwdh2o.com.

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 within home fixtures.

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 or at: www.epa.gov/safewater/lead.

Questions about your water? Contact us for answers.

For information about this report, or your water quality information in general, please contact the City of San Juan Capistrano, Utilities Department at (949) 234-4400.

The City of San Juan Capistrano Utilities Commission meets the third Tuesday of every month at 8:00 am and is open to the public. The City Council meets the first and third Tuesday of every month at 5:00 pm and is open to the public. Meetings are held in the City of San Juan Capistrano Council Chambers located at 32400 Paseo Adelanto, San Juan Capistrano. Please feel free to participate in these meetings.

For more information about health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791.
Important Information the EPA Would Like You to Know

Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today. Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (ground-water well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This “residual” chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home. However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule. Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by DDW. Full Stage 2 compliance began in 2012.

Total Coliform Rule

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.

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 assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

2018 Metropolitan Water District of Southern California Treated Surface Water

<table>
<thead>
<tr>
<th>Chemical</th>
<th>MCL</th>
<th>PHG or (MCLG)</th>
<th>Average Amount</th>
<th>Range of Detections</th>
<th>MCL Violation?</th>
<th>Typical Source of Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inorganic Chemicals – Tested in 2018</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum (ppm)</td>
<td>1</td>
<td>0.6</td>
<td>0.124</td>
<td>ND – 0.31</td>
<td>No</td>
<td>Treatment Process Residue, Natural Deposits</td>
</tr>
<tr>
<td>Barium (ppm)</td>
<td>1</td>
<td>2</td>
<td>0.117</td>
<td>0.117</td>
<td>No</td>
<td>Refineries Discharge, Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Bromate (ppm)</td>
<td>10</td>
<td>0.1</td>
<td>2</td>
<td>ND – 4.7</td>
<td>No</td>
<td>Byproduct of Drinking Water Disinfection</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2</td>
<td>1</td>
<td>0.7</td>
<td>0.6 – 0.9</td>
<td>No</td>
<td>Water Additive for Dental Health</td>
</tr>
<tr>
<td><em><em>Secondary Standards</em> – Tested in 2018</em>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum (ppb)</td>
<td>200</td>
<td>600</td>
<td>124</td>
<td>ND – 310</td>
<td>No</td>
<td>Treatment Process Residue, Natural Deposits</td>
</tr>
<tr>
<td>Chloride (ppm)</td>
<td>500</td>
<td>n/a</td>
<td>94</td>
<td>92 – 95</td>
<td>No</td>
<td>Naturally-occurring Organic Materials</td>
</tr>
<tr>
<td>Color (color units)</td>
<td>15</td>
<td>n/a</td>
<td>ND</td>
<td>ND – 1</td>
<td>No</td>
<td>Naturally-occurring Organic Materials</td>
</tr>
<tr>
<td>Odor (threshold odor number)</td>
<td>3</td>
<td>n/a</td>
<td>2</td>
<td>1 – 4</td>
<td>No</td>
<td>Naturally-occurring Organic Materials</td>
</tr>
<tr>
<td>Specific Conductance (µmhos/cm)</td>
<td>1,600</td>
<td>n/a</td>
<td>852 – 961</td>
<td>No</td>
<td>Substances that Form Ions in Water</td>
<td></td>
</tr>
<tr>
<td>Sulfate (ppm)</td>
<td>500</td>
<td>n/a</td>
<td>199</td>
<td>178 – 220</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Total Dissolved Solids (ppm)</td>
<td>1,500</td>
<td>n/a</td>
<td>565</td>
<td>523 – 607</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td><strong>Unregulated Chemicals – Tested in 2018</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalinity, total as CaCO3 (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>106 – 99 – 114</td>
<td>n/a</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Boron (ppm)</td>
<td></td>
<td>NL = 1</td>
<td>0.13</td>
<td>0.13</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Calcium (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>58 – 62 – 56</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Hardness, total as CaCO3 (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>240 – 219 – 262</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Hardness, total (grains/gallon)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>14 – 12 – 15</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Magnesium (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>23 – 21 – 25</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>pH (units)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>8.1 – 8.1</td>
<td>No</td>
<td>Hydrogen Ion Concentration</td>
</tr>
<tr>
<td>Potassium (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>4.4 – 4.0 – 4.8</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td></td>
<td>Not Regulated</td>
<td>n/a</td>
<td>92 – 86 – 98</td>
<td>No</td>
<td>Runoff or Leaching from Natural Deposits</td>
</tr>
<tr>
<td>Total Organic Carbon (ppm)</td>
<td></td>
<td>n/a</td>
<td>2.4</td>
<td>2.1 – 2.7</td>
<td>n/a</td>
<td>Various Natural and Man-made Sources</td>
</tr>
</tbody>
</table>

**Unregulated Chemicals Requiring Monitoring**

<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>Manganese (ppb)</td>
<td>SMCL = 50</td>
<td>n/a</td>
<td>2.4</td>
<td>1.6 – 3.8</td>
<td>2018</td>
</tr>
</tbody>
</table>

**Manganese** is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb. Manganese was included as part of the unregulated chemicals requiring monitoring.
Unregulated Chemicals Requiring Monitoring

**Chemical**
- Chloride (ppm)
- Chromium, Hexavalent (ppb)
- Chromium, Total (ppb)
- Manganese (ppb)
- Molybdenum, Total (ppb)
- Perfluorooctanoic Acid (ppb)
- Fluoride (ppm)
- Sulfate (ppm)
- Sodium (ppm)

**Notification Level**
- 800
- n/a
- MCL = 50, MCLG = 100
- n/a
- n/a
- n/a
- n/a
- n/a
- 120

**PHG**
- n/a
- 0.02
- n/a
- 4.9
- n/a
- n/a
- n/a
- n/a
- 73

**Average Amount SJC Wells**
- n/a
- 0.065
- 100
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Average Amount SJBA Treated Wells**
- n/a
- 0.02
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Range of Detections**
- 68
- <0.1
- 0.11
- 1.9
- 1.2
- <0.02
- <0.1
- n/a
- 1

**MCL Violation?**
- No
- No
- No
- No
- No
- No
- No
- No
- No

**Typical Source of Contaminant**
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Chemical**
- Total dissolved solids (ppm)
- Turbidity (NTU)
- Organic Chemicals
- Bacterial Quality

**Notification Level**
- n/a
- 5
- 3*
- 3*

**PHG**
- n/a
- n/a
- n/a
- n/a

**Average Amount SJC Wells**
- n/a
- n/a
- n/a
- n/a

**Average Amount SJBA Treated Wells**
- n/a
- n/a
- n/a
- n/a

**Range of Detections**
- n/a
- n/a
- n/a
- n/a

**MCL Violation?**
- No
- No
- No
- No

**Typical Source of Contaminant**
- n/a
- 0.08
- <1
- n/a

**Chemical**
- Total dissolved solids (ppm)
- Turbidity (NTU)

**Notification Level**
- 1,000
- 5

**PHG**
- n/a
- n/a

**Average Amount SJC Wells**
- n/a
- n/a

**Average Amount SJBA Treated Wells**
- 1,158
- n/a

**Range of Detections**
- 398
- n/a

**MCL Violation?**
- No
- No

**Typical Source of Contaminant**
- n/a
- 0.12

**2018 City of San Juan Capistrano Distribution System Water Quality**

**Disinfection Byproducts**
- Total trihalomethanes (ppb)
- Haloacids (ppb)
- Chlorine residual (ppm)

**MCL**
- 80
- 6
- 47.4

**MRDL**
- 33
- 8
- 2.6

**MRDLG**
- No
- No
- No

**Odor (threshold odor number)**
- 3*

**Range of Detections**
- 1.8

**MCL Violation?**
- No

**Typical Source of Contaminant**
- n/a

**Unregulated Chemicals Requiring Monitoring**

**Chemical**
- Chloride
- Chromium, Hexavalent
- Chromium, Total
- Manganese
- Molybdenum, Total
- Perfluorooctanoic Acid
- Fluoride
- Sulfate
- Sodium

**Notification Level**
- 800
- n/a
- MCL = 50, MCLG = 100
- n/a
- n/a
- n/a
- n/a
- n/a
- 120

**PHG**
- n/a
- 0.02
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Average Amount SJC Wells**
- n/a
- 0.065
- 100
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Average Amount SJBA Treated Wells**
- n/a
- 0.02
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Range of Detections**
- 68
- <0.1
- 0.11
- 1.9
- 1.2
- <0.02
- <0.1
- n/a
- 1

**MCL Violation?**
- No
- No
- No
- No
- No
- No
- No
- No
- No

**Typical Source of Contaminant**
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a
- n/a

**Chemical**
- Total dissolved solids (ppm)
- Turbidity (NTU)

**Notification Level**
- 1,000
- 5

**PHG**
- n/a
- n/a

**Average Amount SJC Wells**
- n/a
- n/a

**Average Amount SJBA Treated Wells**
- 1,158
- n/a

**Range of Detections**
- 398
- n/a

**MCL Violation?**
- No
- No

**Typical Source of Contaminant**
- n/a
- 0.12

**2018 City of San Juan Capistrano Monitoring & Reporting Violation**

**Violation:**
- Failure to Monitor for Disinfection Byproducts in 1st Quarter of 2018

**Explanation:**
- We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. We did not collect Trihalogenated and MCLG samples at the Channel Effluent during the second week of February 2018 as required and therefore, cannot be sure of the quality of your drinking water during that time.

**Duration:**
- 1st Quarter of 2018

**Corrective Action:**
- Samples were taken in subsequent quarters with results of Non Detect in all samples. Staff responsible for collecting water quality samples have since reviewed and been trained on the City’s water quality monitoring requirements and scheduling.

**Health Effects:**
- Unknown.

**Violations:**
- Failure to Monitor for Total Coliform Rule (TCR)

**Explanation:**
- We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the calendar year 2016, we did not monitor for 1,2,3-trichloropropane from North Open Space, Kincorth, SJBA #4, SJBA #6, COVID #7, and Dance Hall Wells during the sampling period and therefore, cannot be sure of the quality of your drinking water during that time.

**Duration:**
- 2nd Quarter of 2018

**Corrective Action:**
- Samples were taken in subsequent quarters with results of Non Detect in all samples. Staff responsible for collecting water quality samples have since reviewed and been trained on the City’s water quality monitoring requirements and scheduling.

**Health Effects:**
- Unknown.

**Violations:**
- Failure to Monitor for Total Coliform Rule (TCR)

**Explanation:**
- In April 2018 we collected only 47 out of 48 required samples and therefore, cannot be sure of the quality of your drinking water during that time.

**Duration:**
- April 2018

**Corrective Action:**
- All samples collected in April and in subsequent months had results of Non Detect for total coliforms.

**Health Effects:**
- Unknown.
You Can Depend On Us to Deliver Quality Water

Turn the tap and the water flows, as if by magic. Or so it seems. The reality is considerably different, however. Delivering high-quality drinking water to our customers is a scientific and engineering feat that requires considerable effort and talent to ensure the water is always there, always safe to drink.

Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be licensed and are required to complete on-the-job training and technical education before becoming a state certified operator.

Our licensed water professionals have an understanding of a wide range of subjects, including mathematics, biology, chemistry, physics, and engineering. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind every drop.

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. Tradúzcalo o hable con alguien que lo entienda bien.