WHAT'S THIS REPORT ABOUT?

Esté informe contiene información muy importante sobre su agua potable. Comunicúese con Vista Irrigation District para obtener una copia de este reportaje en Español. Lláme al (760) 597-3100.

WHERE DOES MY WATER COME FROM?

We are pleased to present our Consumer Confidence Report (CCR), also known as the Water Quality Report. We take all steps necessary to safeguard your water supply, conducting more than 12,000 tests for over 75 drinking water constituents. This report provides a snapshot of the quality of water we provided last year. Included are details about where your water comes from, what it contains and how it compares to state standards. We are committed to providing you with information because informed customers are our best customers.

If you have any questions or concerns regarding the information presented in this report, please contact Dean Farris, Water Distribution Supervisor at (760) 597-3143. This report is also available on our website under the publications tab at www.vidwater.org.

CONSUMER CONFIDENCE REPORT

VID tests the drinking water quality for many constituents as required by State and Federal regulations. This report shows the results of our monitoring for the period of January 1, 2017 through December 31, 2017.

WHAT'S THIS REPORT ABOUT?

We are pleased to present our Consumer Confidence Report (CCR), also known as the Water Quality Report. We take all steps necessary to safeguard your water supply, conducting more than 12,000 tests for over 75 drinking water constituents. This report provides a snapshot of the quality of water we provided last year. Included are details about where your water comes from, what it contains and how it compares to state standards. We are committed to providing you with information because informed customers are our best customers.

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WHERE DOES MY WATER COME FROM?

The Vista Irrigation District (VID) uses four sources for your drinking water. The first one is local water, which originates from the watershed and well fields located near Lake Henshaw. VID owns the 43,000-acre Warner Ranch which encompasses the lake and monitors activities that could contaminate it. Water from Lake Henshaw is transferred to Lake Wohlford via a canal originally constructed in the 1890s. Once the water reaches the Escondido-Vista Water Treatment Plant (EVWTP), it is treated and disinfected to protect you against microbial contaminants. The second water source is the Colorado River. The third source is from Northern California. The latter two, called imported water, are delivered to San Diego County and ultimately to VID via the Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (Water Authority). Imported water may be treated at EVWTP, Water Authority’s Twin Oaks Valley Water Treatment Plant in San Marcos, Oceanside’s Robert A. Weese Filtration Plant, or MWD’s Skinner Treatment Plant in Riverside County. The fourth source is desalinated seawater from the Claude “Bud” Lewis Carlsbad Desalination Plant.

The Vista Irrigation District, a public agency, has been proudly serving the city of Vista and portions of San Marcos, Escondido, Oceanside and San Diego County since 1923.
WHAT WERE THE FINDINGS OF THE LOCAL AND IMPORTED SOURCE WATER ASSESSMENTS?

Local Water Sources

In April 2016, Vista Irrigation District, in conjunction with the City of Escondido, prepared a Sanitary Survey of the local watershed. This survey assesses activities within the watershed that have the potential to influence the quality of water delivered from Lake Henshaw, Dixon Lake and Lake Wohlford. While the survey identifies a number of activities that have the potential to adversely affect water quality, including residential septic facilities, highway run-off, and agricultural and recreational activities, no contaminants from these activities were detected in the local water supply in 2016. A copy of the Watershed Sanitary Survey, which contains a Source Water Assessment Program, is available for review at the District Office located at 1391 Engineer Street in Vista.

Imported Water Sources

The Metropolitan Water District of Southern California (MWD) completed its source water assessment of its Colorado River and California State Water Project supplies in December 2002. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered most vulnerable to contamination from urban/storm water runoff, wildlife, agriculture, recreation and wastewater.

MWD updates its source water assessment through watershed sanitary surveys every five years. The most recent watershed sanitary surveys of its source water supplies from the Colorado River was updated in 2015 and the State Water Project was updated in 2016. Watershed sanitary surveys examine potential sources of contamination, summarize and evaluate water quality data and compliance with regulations, and recommend actions to better protect and improve source water quality.

WHY IS THERE ANYTHING IN MY WATER?

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.

The following contaminants may potentially be present in our water sources:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage 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.
- 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

DO I NEED TO TAKE PRECAUTIONS?

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 calling the U.S. Environmental Protection Agency’s (USEPA) Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

WHERE CAN I GET MORE INFORMATION?

San Diego County Water Authority
(858) 522-6600
www.sdewa.org

State Water Resources Control Board
Division of Drinking Water Programs
(619) 526-4159 — Southern California
Drinking Water Field Operations Branch
www.swrbc.ca.gov/drinking_water/programs/index.shtml

U.S. Environmental Protection Agency
Office of Ground Water & Drinking Water
(800) 426-4791
www.epa.gov/government-and-drinking-water

FREQUENTLYASKEDQUESTIONS

Q. What is Cryptosporidium?

A. Cryptosporidium (pronounced “krip-toe-spo-rid-ee-um”) is a protozoan parasite found in lakes and rivers typically when these waters contain animal or sewage waste. Cryptosporidium was not detected in any samples of VSD’s treated water supply.

Q. Should I boil my water?

A. On very rare occasions, the local health department or your water utility may issue a notice to boil your water. This may happen when there is an earthquake or other emergency. Otherwise, unless you have a severely weakened immune system or your doctor advises you, you do not need to boil your tap water. It already meets strict state and federal regulations for quality.

Q. What causes hardness in water?

A. A water’s “hardness” is a measure of the amount of certain minerals that are dissolved in the water. Depending on varying sources and system flows, the hardness of our water ranged from 43.5 - 300 mg/L in 2017. These values translate to 2.5 - 17.5 grains per gallon (gpg). These numbers may be of interest because some household appliances (such as dishwashers or water treatment devices) have settings that need to be adjusted based on the hardness of the water.

The minerals in water may leave white spots on glasses, coffee pots, shower heads or shower doors. These spots are chiefly calcium deposits and are not harmful to health. Putting vinegar in a coffee pot and allowing it to sit overnight will usually remove the spots. Make sure to rinse well before using. There are also some store products you can use to avoid spotting when glasses are washed and allowed to dry.

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www.epa.gov/government-and-drinking-water
### 2017 WATER QUALITY MONITORING RESULTS (continued)

#### Organic Constituents - Standard Primary Standards (Disinfection Byproduct in Treatment Plant Effluent)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal or State MCL</th>
<th>PHG (MCLG)</th>
<th>Range</th>
<th>Average</th>
<th>Typical Source/Comments</th>
</tr>
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<tbody>
<tr>
<td>disinfectant</td>
<td>%</td>
<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td>disinfectant</td>
<td>ug/L</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Chlorine (Turbidity)

| High Effluent Turbidity | NTU | % | NA | 0.07 - 0.16 | 0.16 | NA | Soil Runoff |

#### Effluent Haloacetic Acids (HAAs)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal or State MCL</th>
<th>PHG (MCLG)</th>
<th>Range</th>
<th>Average</th>
<th>Typical Source/Comments</th>
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<tr>
<td>disinfectant</td>
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####organic Constituents - Disinfection Byproduct in VID Distribution System

<table>
<thead>
<tr>
<th>Parameter (Year Sampled)</th>
<th>Units</th>
<th>Action Level</th>
<th>PHG (MCLG)</th>
<th>Distribution System 90th Percentile</th>
<th>Number of Samples</th>
<th>Number of Sites Exceeding Action Level</th>
<th>DLR</th>
<th>Typical Source/ Comments</th>
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<tr>
<td>disinfectant</td>
<td>mg/L</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>disinfectant</td>
<td>mg/L</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</table>

#### Inorganic Constituents - Copper/Lead in Residential Taps (Sampled in 2015)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Action Level</th>
<th>PHG (MCLG)</th>
<th>Distribution System 90th Percentile</th>
<th>Number of Samples</th>
<th>Number of Sites Exceeding Action Level</th>
<th>DLR</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>disinfectant</td>
<td>ng/L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Terms Used in this Report

- **Detection Limit for Reporting (DLR)**: A detected contaminant is any contaminant detected at or above its detection limit for purposes of reporting.
- **Locational Running Annual Average (LRAA)**: The average of sample analytical results for sample sites at a particular monitoring location during the previous four calendar quarters.
- **Maximum Contaminant Level (MCL)**: The highest level of a contaminant that is allowed in drinking water. There is no known or expected risk to health from MCLs.
- **Maximum Contaminant Level Goal (MCLG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health.
- **Maximum Residual Disinfectant Level (MRDL)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. MRDLs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a contaminant in drinking water 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.
- **Primary Drinking Water Standards (PDWS)**: MCLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.
- **Public Health Goal (PHG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- **Recreational Action Level (RAL) / Notification Level (NL)**: The concentration of a contaminant at which a health hazard exists or it exceeds treatment or other requirements, which a water system must follow.
- **Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.
- **Secondary MCLs**: To protect the odor, taste and appearance of drinking water.

### Keeping YOU Informed

Vista Irrigation District (VID) safeguards your water supply through various water quality control measures. Protection of the water supply from potential pollution or health-hazards is the primary objective of VID's Cross Connection Control Program. When customers' private pipes intersect with water system pipelines, a cross-connection is created. Without necessary protections, contamination can result from backflow or reverse flow, due to changes in water pressure in the distribution system; a backflow device prevents the flow of potentially contaminated water from a customer’s pipelines into the water distribution system.

### LEAD AND COPPER

The U.S. Environmental Protection Agency Lead and Copper Rule requires Vista Irrigation District (VID) to collect special samples of each constituent every three years; the last samples were collected in 2015. Lead was not detected in either the source water or private households. Copper was not detected in source water but was detected at low levels in private households. The source of copper comes from the leaching of copper used in household plumbing fixtures. For more information about Lead and Copper Rule testing please visit www.vidwater.org.

In addition to the required Lead and Copper Rule testing, the State Water Resources Control Board, Division of Drinking Water required all water agencies to complete one-time lead sampling at schools (K-12) within their service areas upon request. In 2017, VID completed lead sampling at 23 schools.

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. VID 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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 http://www.epa.gov/lead.

In compliance with state law, VID requires an approved backflow device on commercial, industrial, agricultural and multi-family accounts as well as properties with wells. Backflow protection may also be required on accounts considered "high risk", such as chemical processing, medical and dental facilities, flower growers, and recreational vehicle dump stations. If you have questions about the program, please feel free to contact VID at (760) 597-3100.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

**VID HAS NOT HAD ANY VIOLATIONS OF THESE REGULATIONS!**
The data tables shown on this page and the following two pages list all of the drinking water constituents that were detected during the most recent sampling for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The State Water Resources Control Board (SWRCB) requires us to monitor for certain constituents less than once per year because the concentrations are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old. The terms used in these data tables can be found listed at the end of the table.

The following tables show water from three sources - local water from Lake Henshaw, which is treated at the Escondido-Vista Water Treatment Plant (EWTP); imported water, which is treated at the San Diego County Water Authority’s Twin Valley Water Treatment Plant, Metropolitan Water District of Southern California’s Robert A. Weaver Water Treatment Plant, the City of Oceanside’s Robert A. Weise Filtration Plant and the EWTP; and desalinated seawater, which comes from the Claude “Bud” Lewis Carlsbad Desalination Plant (Carlsbad Desalination Plant).

### 2017 WATER QUALITY MONITORING RESULTS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal or State MCL [MRDL]</th>
<th>PHG (MCLG) [MRDL]</th>
<th>Range</th>
<th>Average</th>
<th>Treatment Plant Effluents</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inorganic Constituents - Primary Standards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic (As)</td>
<td>µg/L</td>
<td>10</td>
<td>0.004</td>
<td></td>
<td></td>
<td>Carlsbad Desalination Plant</td>
<td>2</td>
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<tr>
<td>Fluoride (F-)</td>
<td>mg/L</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>Twin Oaks Valley, Escondido-Vista Water Treatment Plant, Combined Effluents</td>
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<tr>
<td>Nitrate (N)</td>
<td>mg/L</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td>Twin Oaks Valley &amp; Weesa Water Treatment Plants</td>
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<tr>
<td><strong>Inorganic Constituents - Secondary Standards (Aesthetic Standards)</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Aluminum (Al)</td>
<td>µg/L</td>
<td>200</td>
<td>NS</td>
<td></td>
<td></td>
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<td>50</td>
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<tr>
<td>Color</td>
<td>units</td>
<td>15</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
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<tr>
<td>Chloride (Cl)</td>
<td>mg/L</td>
<td>500</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td>70</td>
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<tr>
<td>Iron (Fe)</td>
<td>mg/L</td>
<td>0.3</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td>70</td>
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<tr>
<td>Sulfate (SO4)²⁻</td>
<td>mg/L</td>
<td>500</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td>124</td>
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<tr>
<td>Total Dissolved Solids</td>
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<td>1000</td>
<td>NS</td>
<td></td>
<td></td>
<td></td>
<td>305</td>
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<td>Specific Conductance units/ cm</td>
<td>1800</td>
<td>NS</td>
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<td>585</td>
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<tr>
<td><strong>Inorganic Constituents - Unregulated</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>710</td>
</tr>
</tbody>
</table>

### Additional Analyzed

- **Total Alkalinity:** mg/L
  - North San Diego County: Range 83 - 140, Average 110
  - Southern California: Range 52 - 122, Average 77.7
  - Escondido-Vista Water Treatment Plant: Range 48 - 88, Average 59.7

- **Bicarbonate (HCO3):** mg/L
  - North San Diego County: Range 100 - 170, Average 130
  - Southern California: Range 83 - 300, Average 171
  - Twin Oaks Valley: Range NR, Average 133.7

- **Hardness as CaCO3:** mg/L
  - North San Diego County: Range 3.3 - 5.8, Average 3.1
  - Southern California: Range 2.7 - 3.2, Average 2.8

- **Calcium (Ca):** mg/L
  - North San Diego County: Range 20 - 74, Average 32.6
  - Southern California: Range 19.4 - 43.9, Average 23.9

- **Magnesium (Mg):** mg/L
  - North San Diego County: Range 12 - 23, Average 17
  - Southern California: Range 8.0 - 27.0, Average 12.6

- **Sodium (Na):** mg/L
  - North San Diego County: Range 57 - 120, Average 80
  - Southern California: Range 48 - 56, Average 53.0

### pH

- North San Diego County: Range 7.7 - 8.1, Average 8.0
  - Southern California: Range 7.4 - 8.0, Average 7.9

### Potassium (K)

- North San Diego County: Range 3.3 - 5.8, Average 3.1
  - Southern California: Range 2.7 - 3.2, Average 2.8

### Total Chl R Residual

- North San Diego County: Range 0.15 - 0.34, Average 0.2
  - Southern California: Range NR, Average 0.2

### Chlorite

- North San Diego County: Range 0.20 - 0.42, Average 0.2
  - Southern California: Range NR, Average 0.2

### Total Organic Carbon (TOC)

- North San Diego County: Range 1.9 - 3.1, Average 1.9
  - Southern California: Range 1.9 - 3.1, Average 1.9

### Silicon (SiO2)

- North San Diego County: Range 7.0 - 8.6, Average 7.0
  - Southern California: Range NR, Average 7.0

### Radionuclides Analyzed Every Four Years, for Four Consecutive Quarters

- **Gross Alpha Activity:** pCi/L
  - North San Diego County: Range 7.8 - 7.8, Average 7.8
  - Southern California: Range 1.9 - 1.9, Average 1.9

- **Gross Beta Activity:** pCi/L
  - North San Diego County: Range 0.1 - 0.1, Average 0.1
  - Southern California: Range 0.1 - 0.1, Average 0.1

### Microbiological Constituents in VID Distribution System

- **Total Coliform Bacte-** (monthly positives)
  - North San Diego County: Range 0.0 - 0.07%, Average 0.0%
  - Southern California: Range 0.0 - 0.07%, Average 0.0%

- **Fecal Coliform/ E Coli:**
  - North San Diego County: Range 0%, Average 0%
  - Southern California: Range 0%, Average 0%
The data tables shown on this page and the following two pages list all of the drinking water constituents that were detected during the most recent sampling for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The State Water Resources Control Board (SWRCB) requires us to monitor for certain constituents less than once per year because the concentrations are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old. The terms used in these data tables can be found listed at the end of the table.

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### 2017 WATER QUALITY MONITORING RESULTS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Year</th>
<th>Average</th>
<th>Range</th>
<th>Typical Source/ Comments</th>
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<tbody>
<tr>
<td><strong>Inorganic Constituents - Primary Standards</strong></td>
<td></td>
<td></td>
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<tr>
<td>Arsenic (As)</td>
<td>ug/L</td>
<td>2017</td>
<td>10</td>
<td>0.004</td>
<td>Emission of natural deposits, glass and electronic production waste</td>
</tr>
<tr>
<td>Fluoride (F-), Treatment Related</td>
<td>mg/L</td>
<td>2017</td>
<td>2</td>
<td>1</td>
<td>Emission of natural deposits, water additive for dental health</td>
</tr>
<tr>
<td>Nitrate (N)</td>
<td>mg/L</td>
<td>2017</td>
<td>10</td>
<td>10</td>
<td>Runoff/leaching from fertilizer use, sewage; natural erosion</td>
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<tr>
<td><strong>Inorganic Constituents - Secondary Standards (Aesthetic Standards)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum (Al)</td>
<td>ug/L</td>
<td>2017</td>
<td>200</td>
<td>NS</td>
<td>Residue from water treatment process; natural deposits; erosion</td>
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<tr>
<td>Chloride (Cl)</td>
<td>mg/L</td>
<td>2017</td>
<td>500</td>
<td>NS</td>
<td>Runoff/leaching from natural deposits; seawater influence</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>mg/L</td>
<td>2017</td>
<td>0.3</td>
<td>NS</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
<tr>
<td>Sulfate (SO4^-2)</td>
<td>mg/L</td>
<td>2017</td>
<td>500</td>
<td>NS</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>mg/L</td>
<td>2017</td>
<td>1000</td>
<td>NS</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>umhos/cm</td>
<td>2017</td>
<td>1800</td>
<td>NS</td>
<td>Substances that form ions in water; seawater influence</td>
</tr>
<tr>
<td><strong>Inorganic Constituents - Unregulated</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boron (B)</td>
<td>mg/L</td>
<td>2017</td>
<td>160</td>
<td>NS</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
</tbody>
</table>

### 2017 WATER QUALITY MONITORING RESULTS (continued)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal</th>
<th>PHG</th>
<th>Range</th>
<th>Treatment Plant Effluents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inorganic Constituents - Primary Standards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum (Al)</td>
<td>ug/L</td>
<td>50</td>
<td>ND</td>
<td>53</td>
<td>490 - 610</td>
</tr>
<tr>
<td>Chloride (Cl)</td>
<td>mg/L</td>
<td>70</td>
<td>ND</td>
<td>63</td>
<td>76.9</td>
</tr>
<tr>
<td>Fluoride (F-), Treatment Related</td>
<td>mg/L</td>
<td>0.07</td>
<td>ND</td>
<td>0.09</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Inorganic Constituents - Secondary Standards (Aesthetic Standards)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>mg/L</td>
<td>1</td>
<td>ND</td>
<td>ND</td>
<td>0.003</td>
</tr>
<tr>
<td><strong>Inorganic Constituents - Unregulated</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boron (B)</td>
<td>mg/L</td>
<td>0.14</td>
<td>0.11</td>
<td>0.59</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
</tbody>
</table>

### 2017 WATER QUALITY MONITORING RESULTS (continued)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal</th>
<th>PHG</th>
<th>Range</th>
<th>Treatment Plant Effluents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microbiological Constituents in VID Distribution System</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform Bacteria (monthly positives)</td>
<td>%</td>
<td>5</td>
<td>ND</td>
<td>0.0%</td>
<td>0.97%</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>%</td>
<td>ND</td>
<td>0</td>
<td>0%</td>
<td>0.97%</td>
</tr>
</tbody>
</table>

Additional Analyzed:

- **Total Alkalinity**: mg/L (NS) NS Range 83 - 140 52 - 122 48 - 88 - Emission of natural deposits; Carlsbad | DLR |
- **Bicarbonate (HCO3)**: mg/L (NS) NS Range 100 - 170 NR NR - Emission of natural deposits; leaching |
- **Hardness as CaCO3**: mg/L (NS) NS Range 130 - 240 83 - 360 43.4 - 96.2 - Emission of natural deposits; leaching |
- **Calcium (Ca)**: mg/L (NS) NS Range 31 - 59 20 - 74 19.4 - 34.9 - Emission of natural deposits; leaching |
- **Magnesium (Mg)**: mg/L (NS) NS Range 12 - 23 8.0 - 27.0 0.483 - 1.09 - Emission of natural deposits; leaching |
- **Sodium (Na)**: mg/L (NS) NS Range 83 - 300 48 - 56 32.7 - 80.4 - Emission of natural deposits; leaching |
- **Iron (Fe)**: mg/L (NS) NS Range 48 - 56 32.7 - 80.4 - Emission of natural deposits; leaching |
- **Lead**: ug/L (NS) NS Range 3.14 - 0.012 - Emission of natural deposits; leaching |
- **Chlorine**: mg/L (NS) NS Range 3.4 - 2.0 - Emission of natural deposits; leaching |
- **Fluoride (F-)**: mg/L (NS) NS Range 3.3 - 0.8 2.7 - 3.2 1.31 - 4.36 - Emission of natural deposits; leaching |
- **Potassium (K)**: mg/L (NS) NS Range 2.00 - 1.00 - Emission of natural deposits; leaching |
- **Calcium (Ca)**: mg/L (NS) NS Range 1.80 - 0.97% - Emission of natural deposits; leaching |
- **Iron (Fe)**: mg/L (NS) NS Range 0.97% - Emission of natural deposits; leaching |
- **Erosion of natural deposits; industrial wastes** | DLR |
- **Erosion of natural deposits; seawater influence** | DLR |
- **Residue from water treatment process; natural deposits; erosion** | DLR |
- **Runoff/leaching from natural deposits; seawater influence** | DLR |
- **Runoff/leaching from natural deposits; industrial wastes** | DLR |
- **Runoff/leaching from fertilizer use, sewage; natural erosion** | DLR |
### 2017 WATER QUALITY MONITORING RESULTS (continued)

#### Organic Constituents - Primary Standards (Disinfection Byproduct in Drinking Water Treatment Plant Effluent)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal MCL</th>
<th>PHG (MCLG)</th>
<th>Range</th>
<th>Average</th>
<th>Tufts-Oaks Valley Water Treatment Plant</th>
<th>Twin Oaks Valley Water Treatment Plants Combined Effluents</th>
<th>Carlsbad Desalination Plant</th>
<th>ND LR</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Total Trihalomethanes (TTHMs)</td>
<td>µg/L</td>
<td>80</td>
<td>NS</td>
<td>Range</td>
<td>93 - 24</td>
<td>14 - 39</td>
<td>NS</td>
<td>81</td>
<td>30</td>
<td>ND</td>
</tr>
<tr>
<td>Effective Haloacids (HAAs)</td>
<td>µg/L</td>
<td>80</td>
<td>NS</td>
<td>Range</td>
<td>14 - 38</td>
<td>3.0 - 35</td>
<td>NS</td>
<td>24</td>
<td>11.1</td>
<td>ND</td>
</tr>
</tbody>
</table>

#### Clarity (Turbidity)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Federal MCL</th>
<th>PHG (MCLG)</th>
<th>Range</th>
<th>Average</th>
<th>Tufts-Oaks Valley Water Treatment Plant</th>
<th>Twin Oaks Valley Water Treatment Plants Combined Effluents</th>
<th>Carlsbad Desalination Plant</th>
<th>ND LR</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Filter</td>
<td>NTU</td>
<td>TI+1</td>
<td>NA</td>
<td>Range</td>
<td>0.07 - 0.10</td>
<td>0.01 - 0.2</td>
<td>0 - 1</td>
<td>NA</td>
<td>Soil Runoff</td>
<td></td>
</tr>
</tbody>
</table>

#### Organic Constituents - Disinfection Byproduct in VID Distribution System

<table>
<thead>
<tr>
<th>Parameter (Year Sampled)</th>
<th>Units</th>
<th>Federal MCL</th>
<th>PHG (MCLG)</th>
<th>Distribution System 90th Percentile</th>
<th>Number of Samples</th>
<th>Number of Sites Exceeding Action Level</th>
<th>DLR</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (TTHMs)</td>
<td>µg/L</td>
<td>80</td>
<td>NS</td>
<td>Highest LRAA</td>
<td>16.3 - 68.9</td>
<td>47.2</td>
<td>NS</td>
<td>By-product of drinking water chlorination</td>
</tr>
<tr>
<td>Haloacids (HAAs)</td>
<td>µg/L</td>
<td>60</td>
<td>NS</td>
<td>Range</td>
<td>4.0 - 26.7</td>
<td>17.6</td>
<td>NS</td>
<td>By-product of drinking water chlorination</td>
</tr>
</tbody>
</table>

#### Inorganic Constituents - Copper/Lead in Residential Taps (Sampled in 2015)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Action Level</th>
<th>PHG (MCLG)</th>
<th>Distribution System 90th Percentile</th>
<th>Number of Samples</th>
<th>Number of Sites Exceeding Action Level</th>
<th>DLR</th>
<th>Typical Source/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (Cu)</td>
<td>mg/L</td>
<td>1.3</td>
<td>0.3</td>
<td>0.05</td>
<td>51</td>
<td>0</td>
<td>0.05</td>
<td>Corrosion of household plumbing systems: erosion of natural deposits</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>µg/L</td>
<td>15</td>
<td>0.2</td>
<td>0.1</td>
<td>51</td>
<td>0</td>
<td>5</td>
<td>Internal corrosion of household water plumbing systems: discharge from industrial manufacturing; erosion of natural deposits</td>
</tr>
</tbody>
</table>

### TERMS USED IN THIS REPORT

- **Detection Limit** for Reporting (DLR): A detected contaminant is any contaminant detected at or above its detection level for purposes of reporting.
- **Locational Running Annual Average (LRAA):** The average of sample analytical results for samples at a particular monitoring location during the previous four calendar quarters.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.
- **Maximum Contaminant Level Goal (MCLG):** The highest level of a contaminant that is allowed 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).
- **Primary Drinking Water Standards (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Public Health Goal (PHG):** A level which a water system must follow. PHGs are set by the California Environmental Protection Agency.
- **Regulatory Action Level (AL) / Notification Level (NL):** The concentration of a contaminant at which necessary treatment or other requirements which a water system must follow.

### Keeping YOU Informed

**WHAT IS A BACKFLOW DEVICE?**

Vista Irrigation District (VID) safeguards your water supply through various water quality control measures. Protection of the water supply from potential pollution or health-hazards is the primary objective of VID’s Cross Connection Control Program. When customers’ private pipes intersect with water system pipelines, a cross-connection is created. Without necessary protections, contamination can result from backflow or reverse flow, due to changes in water pressure in the distribution system; a backflow device prevents the flow of potentially contaminated water from a customer’s pipelines into the water distribution system.

In compliance with state law, VID requires an approved backflow device on commercial, industrial, agricultural and multi-family accounts as well as properties with wells. Backflow protection may also be required on accounts considered “high risk”, such as chemical processing, medical and dental facilities, flower growers, and recreational vehicle dump stations. If you have questions about the program, please feel free to contact VID at (760) 597-3100.

**LEAD AND COPPER**

The U.S. Environmental Protection Agency Lead and Copper Rule requires Vista Irrigation District (VID) to collect special samples of each constituent every three years; the last samples were collected in 2015. Lead was not detected in either the source water or private households. Copper was not detected in source water but was detected at low levels in private households. The source of copper comes from the leaching of copper used in household plumbing fixtures. For more information about Lead and Copper Rule testing please visit www.vidwater.org.

In addition to the required Lead and Copper Rule testing, the State Water Resources Control Board, Division of Drinking Water required all water agencies to complete one-time lead sampling at schools (K-12) within their service areas upon request. In 2017, VID completed lead sampling at 23 schools.

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. VID 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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 http://www.epa.gov/lead.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

VID HAS NOT HAD ANY VIOLATIONS OF THESE REGULATIONS!
The Watershed Sanitary Survey, which contains a Source activities, no contaminants from these activities were affect water quality, including residential septic facilities, number of activities that have the potential to adversely Lake and Lake Wohlford. While the survey identifies a quality of water delivered from Lake Henshaw, Dixon local watershed. This survey assesses activities within watershed that have the potential to influence the Watershed sanitary surveys examine potential sources contamination, summarize and evaluate water quality data and compliance with regulations, and recommend actions to better protect and improve source water quality.

WHAT WERE THE FINDINGS OF THE LOCAL AND IMPORTED SOURCE WATER ASSESSMENTS?

DO I NEED TO TAKE PRECAUTIONS?

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 calling the U.S. Environmental Protection Agency’s (USEPA) Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

Imported Water Sources

The Metropolitan Water District of Southern California (MWD) completed its source water assessment of its Colorado River and California State Water Project supplies in December 2002. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered most vulnerable to contamination from urban/storm water runoff, wildlife, agriculture, recreation and wastewater.

MWD updates its source water assessment through watershed sanitary surveys every five years. The most recent watershed sanitary surveys of its source water supplies from the Colorado River was updated in 2015 and the State Water Project was updated in 2016. Watershed sanitary surveys examine potential sources of contamination, summarize and evaluate water quality data and compliance with regulations, and recommend actions to better protect and improve source water quality.

WHY IS THERE ANYTHING IN MY WATER?

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.

The following contaminants may potentially be present in our water sources: Microbial contaminants, such as viruses and bacteria, that may come from sewage 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. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use. Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.
WHAT’S THIS REPORT ABOUT?

We are pleased to present our Consumer Confidence Report (CCR), also known as the Water Quality Report. We take all steps necessary to safeguard your water supply, conducting more than 12,000 tests for over 75 drinking water constituents. This report provides a snapshot of the quality of water we provided last year. Included are details about where your water comes from, what it contains and how it compares to state standards. We are committed to providing you with information because informed customers are our best customers.

If you have any questions or concerns regarding the information presented in this report, please contact Dean Farris, Water Distribution Supervisor at (760) 597-3143. This report is also available on our website under the publications tab at www.vidwater.org.

WHERE DOES MY WATER COME FROM?

The Vista Irrigation District (VID) uses four sources for your drinking water. The first one is local water, which originates from the watershed and well fields located near Lake Henshaw. VID owns the 43,000-acre Warner Ranch which encompasses the lake and monitors activities that could contaminate it. Water from Lake Henshaw is transferred to Lake Wohlford via a canal originally constructed in the 1890s. Once the water reaches the Escondido-Vista Water Treatment Plant (EVWTP), it is treated and disinfected to protect you against microbial contaminants. The second water source is the Colorado River. The third source is from Northern California. The latter two, called imported water, are delivered to San Diego County and ultimately to VID via the Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (Water Authority). Imported water may be treated at EVWTP, Water Authority’s Twin Oaks Valley Water Treatment Plant in San Marcos, Oceanside’s Robert A. Weese Filtration Plant, or MWD’s Skinner Treatment Plant in Riverside County. The fourth source is desalinated seawater from the Claude “Bud” Lewis Carlsbad Desalination Plant.