The State Water Resources Control Board Division of Drinking Water (DDW) requires community water systems to publish and make available an annual Consumer Confidence Report to provide background on the quality of your water and to show compliance with federal and state drinking water standards.

Castaic Lake Water Agency (CLWA) and the local water retailers (CLWA Santa Clarita Water Division (SCWD), Los Angeles County Waterworks District #36 (LACWW#36), Newhall County Water District (NCWD) and Valencia Water Company (VWC)) continuously work to ensure you have a reliable and safe drinking water supply at a reasonable cost. We are committed to maintaining and delivering safe drinking water for you, our customers. This 2017 Annual Water Quality Report describes in detail the quality of local water supplies in the Santa Clarita Valley during 2016. As in years past, your tap water met all U.S. Environmental Protection Agency (USEPA) and State drinking water health standards. You will find further explanation of the requirements and test results in the accompanying pages.

Due to higher than average rainfall amounts, the five-year drought is officially over in California. Surface water reservoirs are at capacity but groundwater basins have not yet fully recovered. Even though emergency drought restrictions have been lifted, prohibitions against wasteful practices are still in effect. We encourage everyone to maintain a water efficient lifestyle. This includes implementing water use efficiency practices both inside and outside the home. Together we can make sure the Santa Clarita Valley is ready when the next drought occurs.

Water is one of our most valuable resources. Water quality is only one component of the total value of water. In order to have reliable supplies, water planning must take a comprehensive, proactive approach. To accomplish this, water must be sustainably extracted from local groundwater aquifers and/or imported to this area and treated to drinking water standards. Planning and distribution of water requires substantial infrastructure and dedicated professionals to bring water responsibly from its source to your tap. The water professionals serving the Santa Clarita Valley have always made water quality and water reliability their top priorities.

Residential and business customers are encouraged to check out a new publication “Thrifty 30 – Plants for the Santa Clarita Valley.” This pamphlet describes 30 plants that are attractive, available, drought-tolerant, easy to maintain and able to thrive through our hottest summers and coldest winter nights. These plants also thrive in clay soil. You can get a copy at CLWA or your local water retailer or visit clwa.org/wp-content/uploads/2017/03/Thrifty-30-Brochure-web.pdf to view/download a copy.

Visit CLWA or your water retailer’s website for water conservation tips and available conservation programs in your service area.

If you have any questions about this report or water quality, please contact CLWA or your water retailer, whose contact information is detailed at the end of this report.

Sincerely,

Matthew G. Stone | General Manager | CLWA
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Keith Abercrombie | Retail Manager | SCWD
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NOTE: All of the test results in this report were analyzed in 2016 unless noted otherwise. Any chemical not listed in this report was not detected or was detected below the detection level for purposes of reporting. Your local water supplier is in compliance with all drinking water regulations unless a specific violation is noted.
MICROBIOLOGICAL

Microbial contaminants, such as viruses and bacteria, can be naturally occurring or result from urban storm water runoff, sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Drinking water is tested throughout the distribution systems weekly for Total Coliform (TC) bacteria. TC are naturally occurring in the environment and are indicators for finding possible pathogenic contamination of a drinking water system. The MCL for TC is 5% of all monthly tests showing positive results for larger systems and as low as one (1) positive sample per month in smaller systems. If TC is positively identified through routine testing, the water is further analyzed for Escherichia coli (E. coli) which indicates the potential of fecal contamination. No E. coli was detected in any drinking water system in the Santa Clarita Valley (SCV) last year and no water system was out of compliance with the Total Coliform Rule.

Additional tests did not detect the water-borne parasites Cryptosporidium parvum or Giardia lamblia in any sample of Castaic Lake water.

METALS AND SALTS

Metals and salts are required to be tested in groundwater once every three years and in Castaic Lake water every month. Small quantities of naturally occurring arsenic are found in Castaic Lake and in some groundwater wells. Arsenic, a metalloid, is present due to the natural erosion of the rocks that water travels over or through. While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. The US Environmental Protection Agency (USEPA) continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

A number of naturally occurring salts are found in both surface and groundwater. These include chloride, fluoride, nitrate, nitrite, calcium, magnesium, potassium and sodium. Collectively, these are referred to as Total Dissolved Solids (TDS). Calcium and magnesium make up what is known as water hardness which can cause scaling as a result of calcium and magnesium precipitates.

Nitrate in drinking water at levels above 10 mg/L (as nitrogen) is a health risk for infants 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 (as nitrogen) may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant woman 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. Nitrate was not detected above the MCL in any sample.

LEAD AND COPPER

Every three years, local water retailers are required to sample for lead and copper at specific customer taps as part of the Lead and Copper Rule. Lead and copper is also tested in source water supplies (i.e., groundwater and surface water). If present, elevated levels of lead can cause serious health problems especially for pregnant women and young children. No traces of lead were detected in any source waters in the Santa Clarita Valley by any of the local water retailers. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing systems. Your water retailer is responsible for providing high quality drinking water but cannot control the variety of materials used in customer 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 home’s water, you can have your water tested by a private laboratory. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water or at www.epa.gov/lead.

ORGANIC COMPOUNDS

Organic chemical contaminants including synthetic and volatile organic chemicals (VOC) are by-products of industrial processes and petroleum production. Castaic Lake and local groundwater wells are tested at least annually for VOCs. Trichloroethylene (TCE) and Tetrachloroethylene (PCE) were found in trace amounts (below the MCL) at a few locations. Consumption of water containing TCE or PCE in excess of the MCL over many years may lead to liver problems and an increased risk of cancer.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION

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.

Contaminants that may be present in source water include:

- 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 that 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 that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (SWRCB) Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide protection for public health. Additional information on bottled water is available on the California Department of Public Health website (www.cdph.ca.gov/programs/Pages/fdbBVW.aspx).

The local water retailers completed the Drinking Water Source Assessment and Protection (DWSAP) program for existing groundwater sources in 2002. DWSAPs are also completed for each new groundwater well placed into service by the retailers. Each DWSAP looks at vulnerability to contamination and assesses potential sources of contamination from sources such as: dry cleaners, auto repair shops, gas stations, medical facilities, schools and other facilities located in the vicinity of each groundwater source. For more information regarding DWSAPs, contact your local water retailer whose contact information is included in this report or visit the following website: www.waterboards.ca.gov/drinking_water_water/certnic/drinkingwater/DWSAP.shtml. You may request a summary of the assessment be sent to you by contacting the SWRCB, DDW at (818) 551-2004.
the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before plumbing systems. Your water retailer is responsible for providing high quality women and young children. No traces of lead were detected in any source waters in tested in source water supplies (i.e., groundwater and surface water). If present, 10 mg/L (as nitrogen) may also affect the ability of the blood to carry oxygen in other symptoms include shortness of breath and blueness of the skin. Nitrate levels above sodium. Collectively, these are referred to as Total Dissolved Solids (TDS). Calcium These include chloride, fluoride, nitrate, nitrite, calcium, magnesium, potassium and A number of naturally occurring salts are found in both surface and groundwater. The USEPA continues to research the due to the natural erosion of the rocks that water travels over or through. While Metals and salts are required to be tested in groundwater once every three years and in Castaic Lake water every month. Total qualified naturally occurring water is found in Castaic Lake and in some groundwater wells. Alkalinity, as calcium, is present during the course of evaporation of water that is heated to boiling. While your drinking water meets federal and state standards for it, it doesn’t mean it doesn’t contain traces of lead from activities of arsenic’s which is known to cause cancer in health effects of arsenic. The arsenic standard currently used to identify the arsenic concentrations need to be measured in water. Arsenic contamination as well as black cotton soil and ground water. These include chloride, nitrate, strontium, strontium 90, tritium, cesium and radium. Arsenic levels are referenced in Table 1 (Total Dissolved Solids). Salts and magnesium make up about half of water’s known elements which are often referred to as sodium (Na+), magnesium, and potassium (K+). Nitrate is a parameter measured at levels above 10 mg/L. High nitrate is a health risk for infants below the age of six months old. Infants who drink water with high nitrate levels are at risk of methemoglobinemia, a condition in which the body is unable to transport oxygen. In order to ensure that taps are not left hot or cold, the USEPA and the State Water Resources Control Board (SWRCB) Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DWSAPs are also completed for each new groundwater well placed into service by the U.S. Food and Drug Administration regulations and California law also establish limits or result from urban stormwater runoff, industrial or domestic wastewater are also completed for each new groundwater well placed into service by the U.S. Food and Drug Administration regulations and California law also establish limits or result from urban stormwater runoff, industrial or domestic wastewater.
CLWA PROVIDES WATER TO LOCAL RETAILERS

CLWA receives and treats surface water from the State Water Project (SWP) and other imported sources. The SWP consists of facilities operated by the California Department of Water Resources to transmit water to SWP contractors for agricultural or urban supply uses. CLWA operates two water treatment plants, the Earl Schmidt Filtration Plant in Castaic and the Rio Vista Water Treatment Plant in Saugus. The SCV’s four water retailers distribute the treated imported water together with groundwater from the Alluvial Aquifer and the Saugus Formation. Water quality information for your area is presented in the table contained in this report.

CLWA Santa Clarita Water Division provides water to a portion of the City of Santa Clarita and unincorporated areas of Los Angeles County including Saugus, Canyon Country and Newhall. Customers received approximately 85% imported water and 15% local groundwater in 2016.

Los Angeles County Waterworks District #36 serves customers located in Hasley Canyon and Val Verde. Customers received 0% imported water and 100% local groundwater in 2016.

Newhall County Water District serves customers located in the Castaic, Newhall, Pinetree and Tesoro del Valle areas. In 2016, Castaic customers received 60% imported water and 40% local groundwater, Newhall customers received 3% imported water and 97% local groundwater. Pinetree and Tesoro del Valle customers received 100% imported water.

Valencia Water Company supplies water to customers in Valencia, Stevenson Ranch, and parts of Castaic, Saugus, and Newhall. In 2016, customers received 40% imported water, 58% local groundwater and 2% recycled water (delivered to large landscape customers).

CHEMICALS IN THE NEWS – PERCHLORATE

Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic industrial operations that used, stored, or disposed of perchlorate and its salts. Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and thereby reduce the production of thyroid hormones leading to adverse affects associated with inadequate hormone levels.

A known perchlorate contaminant plume has been identified and several wells have tested positive for perchlorate. In October 2007, the DDW adopted an MCL of 6 ug/L for perchlorate. DDW issued an amendment to CLWA’s Domestic Water Supply Permit on December 30, 2010, authorizing the use of the perchlorate-treatment facility and, on January 25, 2011, CLWA introduced the treated water into the distribution system in full compliance with the requirements of its amended water-supply permit.

RADIOLOGICAL TESTS

Radioactive compounds can be found in both ground and surface waters, and can be naturally occurring or be the result of oil and gas production and mining activities. Testing is conducted for two types of radioactivity: alpha and beta. If none is detected at concentrations above five picocuries per liter (pCi/L) no further testing is required. If it is detected above 5 pCi/L, the water must be checked for uranium and/or radium.

WATER QUALITY DEFINITIONS

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. The USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants and are available from the USEPA’s Safe Drinking Water Hotline (1-800-426-4791).

The following definitions and acronyms are used for drinking water compliance and reporting purposes:

- **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. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

- **Maximum Contaminant Level Goal (MCLG) or 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 Cal/EPA. MCLGs are set by the USEPA.

- **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

- **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.

- **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.

- **Detection Limit for Purposes of Reporting (DLR):** The smallest concentration of a contaminant that can be measured and reported. DLRs are set by the DDW (same as MCL, Minimum Reporting Level, set by USEPA).

- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers public notification.
Notification Level (NL): State guidelines developed by DDW that address the concentration of a contaminant which, if exceeded, triggers public notification.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Primary Drinking Water Contaminants: Contaminants associated with the protection of public health and that have enforceable standards.

Secondary Drinking Water Contaminants: Contaminants associated with aesthetic considerations such as taste, color and odor, and that have non-enforceable guidelines.

DISINFECTION BY-PRODUCTS
CLWA uses ozone and chloramines to disinfect its water while the water retailers use various forms of chlorine and chloramines to disinfect their groundwater sources. Disinfection By-Products (DBPs), which include Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAS), are generated by the interaction between naturally occurring organic matter and disinfectants such as chlorine and ozone. TTHMs and HAAS are measured at multiple locations throughout the distribution system. Each location is averaged once per quarter and reported as a running average by location.

UNREGULATED CONTAMINANT MONITORING RULE
The USEPA requires utilities to sample for emerging contaminants as part of the Unregulated Contaminant Monitoring Rule (UCMR). Every five (5) years the USEPA prepares a list of unregulated contaminants for drinking water suppliers to analyze. UCMR results are then used to assist in the development of future drinking water regulations. The third round of UCMR sampling (UCMR 3) was completed by all water retailers between 2013-2015. Currently, the USEPA is preparing for UCMR 4. For more information please contact your local water retailer or visit the USEPA website www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule.