

## CHEMICALS IN THE NEWS

### PERCHLORATE UPDATE

**Perchlorate** – Perchlorate, a chemical used in making rocket and ammunitions propellants, has been a water quality concern in the SCV for the past few years. It was detected in 1997 in four Saugus Formation wells operated by the purveyors, near the former Whittaker-Bermite facility. These four wells have not been used as sources of supply since 1997. In November 2002, perchlorate was detected in one Alluvial well adjacent to the Whittaker site, and it was immediately closed.

In November 2000, CLWA and the purveyors filed suit against the Whittaker Corporation (the former owner of the contaminated property) and Santa Clarita LLC and Remediation Financial, Inc. (the owners of record at the time). The suit seeks to have the defendants pay all necessary costs of response, removal of the contaminant, remedial actions, and any liabilities or damages associated with the contamination. Under federal and state law, the owners of the Whittaker-Bermite property have the responsibility for the groundwater cleanup. In 2003, the parties reached an interim settlement and funding agreement, with the potential for reaching a final long-term settlement. Negotiations have been continuing.

In 2002 CLWA and the U.S. Army Corps of Engineers signed a cost-sharing agreement for a feasibility study of the area. All proceedings and data are available to the public, through a State Department of Toxic Substances Control (DTSC) information repository and public meetings. Sampling and testing is ongoing.

A notification level of 6 ug/L was determined in early 2004. DHS has been developing an MCL for perchlorate since that time.

The purveyors and the DTSC signed an oversight agreement in 2003 regarding studies of treatment technologies for removing perchlorate from water supplies, and have also been working with DHS for the necessary permits for these treatment processes. Treatment method pilot studies were conducted during 2003, and in 2004 the purveyors selected ion exchange as the preferred treatment method for removing perchlorate. Treatment facilities will come on line by the end of 2006.

In April 2005, a Valencia Water Company Alluvial well tested positive for perchlorate. The well was taken out of service until October 2005, when construction of a Perchlorate Removal Facility was completed and approved for operation by DHS.

### REMEMBER: USE WATER WISELY, IT'S A WAY OF LIFE!

Water conservation is both a local and a statewide concern. Conservation efforts at the local level can help "stretch" water supplies all over California. Californians should consider water conservation a way of life: water must be conserved in order for it to be available during cyclical droughts.

The Santa Clarita Valley is an inland valley with a hot, dry summer and fall, often marked by high winds. The single greatest use of water in the Valley is landscape irrigation for residential lawns and gardens, commercial landscapes, parks, schoolyards, and golf courses.

#### Five ways to save water:

1. Proper maintenance of sprinkler systems and setting of timers to avoid over-watering and runoff. **Please turn sprinkler timers off during rainy periods!**
2. Checking for leaks in faucets, toilets, hoses, and pipes.
3. Sweeping sidewalks, patios, and driveways instead of hosing them off.
4. Planting drought-tolerant trees and plants when planting new or replacing existing landscapes.
5. Replacing older toilets with new, more efficient toilets. By law, only toilets using 1.6 gallons per flush may be sold in California.

For more information about ways to conserve water, contact your water supplier or visit [www.clwa.org](http://www.clwa.org).

### For More Information:

#### Castaic Lake Water Agency

David Kimbrough  
661-297-1600 x223  
E-mail address: [dkimbrough@clwa.org](mailto:dkimbrough@clwa.org)  
Website: [www.clwa.org](http://www.clwa.org)

The Castaic Lake Water Agency is governed by a Board of Directors that meets on the second and fourth Wednesdays of each month at 6:30 pm, at the Rio Vista Administration Building, 27234 Bouquet Canyon Road.

#### CLWA Santa Clarita Water Division

Cathy Hollomon  
661-259-2737  
E-mail address: [chollomon@scwater.org](mailto:chollomon@scwater.org)  
Website: [www.clwa.org](http://www.clwa.org)

The Santa Clarita Water Division is a non-profit division of the Castaic Lake Water Agency. The Santa Clarita Water Division has its own Board of Directors that meets on the Monday before the second Wednesday of each month at 6:30 pm, at the Rio Vista Administration Building, 27234 Bouquet Canyon Road.

#### Newhall County Water District

Denise Smith  
661-259-3610  
E-mail address: [dsmith@ncwd.org](mailto:dsmith@ncwd.org)  
Website: [www.ncwd.org](http://www.ncwd.org)

The Newhall County Water District is governed by a Board of Directors that meets on the second Thursday of each month at 6:30 pm, at the District Office, 23655 San Fernando Road, Suite "C".

#### Valencia Water Company

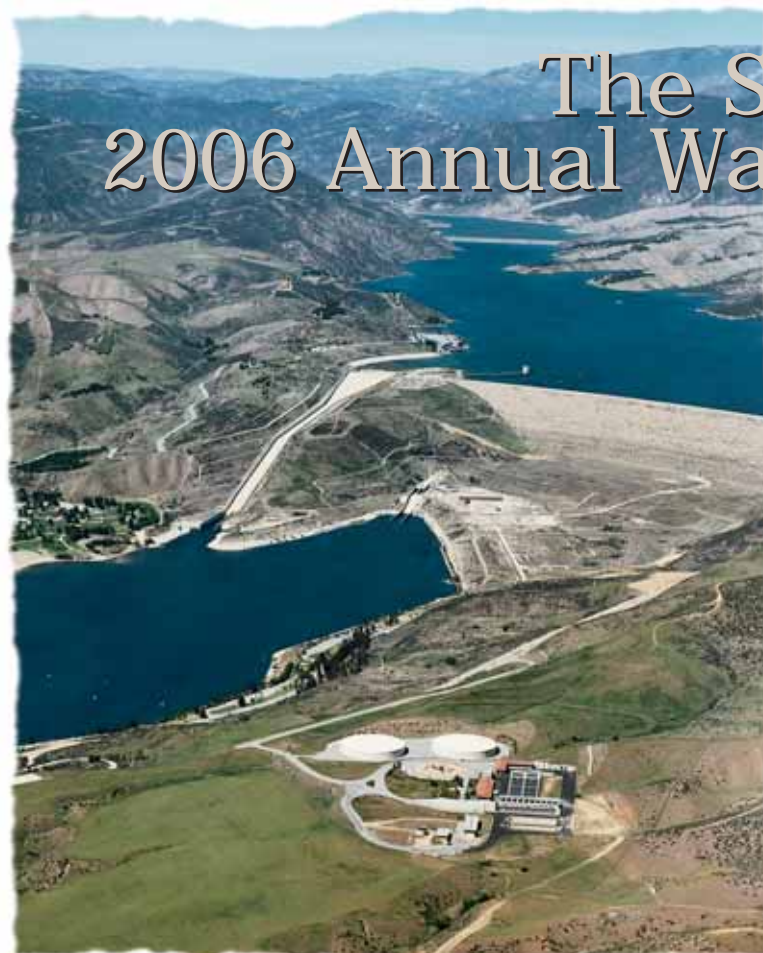
Stacey Roberts  
661-295-6503  
E-mail address: [sroberts@valencia.com](mailto:sroberts@valencia.com)  
Website: [www.valenciawater.com](http://www.valenciawater.com)

The Valencia Water Company is an investor-owned utility regulated by the California Public Utilities Commission. The office is located at 24631 Avenue Rockefeller.

**Este informe contiene información muy importante sobre su agua beber.**

Si usted quisiera el texto en español para este reporte, comuníquese con David Kimbrough al numero de teléfono 661-297-1600 x223.

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# The Santa Clarita Valley 2006 Annual Water Quality Report

**Castaic Lake  
Water Agency**

**CLWA Santa Clarita  
Water Division**

**Newhall County  
Water District**

**Valencia Water  
Company**

WATER  
AGENCY



Castaic Lake Water Agency  
27234 Bouquet Canyon Road  
Santa Clarita, CA 91350-2173

CASTAIC  
LAKE



WATER  
AGENCY



## We Take Pride in Serving You Excellent Quality Water

This Annual Water Quality Report is provided by the Castaic Lake Water Agency (CLWA) and local water purveyors. Our goal is to provide our customers the most up-to-date information about your water. The 2006 Annual Water Quality Report contains a summary of thousands of water quality tests performed in the Santa Clarita Valley (SCV). **All of the test results in this report were run in 2005 unless noted otherwise. If you do not find a chemical listed in this report, it was not found in any test performed on your water. Your local water supplier is therefore in compliance with all drinking water regulations unless a specific violation is noted.**

### All Water in the SCV is from the State Water Project or Local Wells

Both surface and groundwater test results are included in this Water Quality Report.

Surface water utilized in the SCV comes from the State Water Project (SWP). The SWP is a 660-mile system of rivers, aqueducts, and reservoirs that transports water from the Northern Sierra Nevada to Southern California. CLWA's SWP water is transported to Castaic Lake, which is part of the SWP.

Groundwater comes from local wells. Some wells are shallow and tap into the Alluvial Aquifer beneath the Santa Clara River and its tributaries. Others draw water from the much deeper Saugus Formation.

### Where Does My Water Come From?

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.

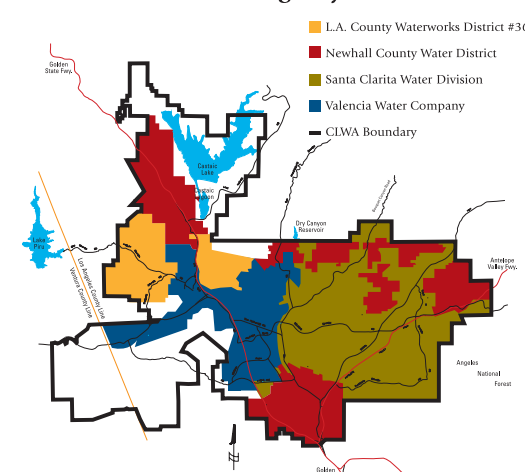
### WATER QUALITY DEFINITIONS

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits of contaminants in bottled water that must provide the same protection for public health. USEPA, DHS and the California Environmental Protection Agency (CalEPA) set legal standards for the quality of drinking water. These standards are intended to protect consumers from contaminants in drinking water. Most of the standards are based on the concentration of contaminants, but a few are based on a Treatment Technique (TT) to remove the contaminant. 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 EPA's Safe Drinking Water Hotline (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 from the Safe Drinking Water Hotline. When a contaminant is regulated based on concentration, there are three levels that are listed: the **Detection Limit for Report (DLR)**, the **Public Health Goal (PHG)** or **Maximum Contaminant Level Goal (MCLG)**, and the **Maximum Contaminant Level (MCL)** or **Action Level (AL)**.

### CLWA Provides Water to Local Purveyors

CLWA receives and treats surface ("imported") water from the SWP. CLWA operates two water treatment plants: the Earl Schmidt Filtration Plant (ESFP) in Castaic and the Rio Vista Water Treatment Plant (RVWTP) in Saugus. The Santa Clarita Valley's four water purveyors distribute the treated SWP water. Water quality information for your area is presented in the table contained in this report.

#### Castaic Lake Water Agency Service Area



CLWA Santa Clarita Water Division provides water to customers in Bouquet, Soledad and Sand Canyons, and southwest Newhall. Customers received approximately 57% SWP water and 43% local groundwater in 2005.

Los Angeles County Waterworks District #36 (LACWWD #36) serves customers located in the area of Hasley Canyon and the community of Val Verde. LACWWD #36 supplies its own Annual Water Quality Report to its customers.

Newhall County Water District (NCWD) serves customers in four separate water systems located in the Castaic, Newhall, Pinetree and Tesoro del Valle areas. In 2005, Castaic customers received 57% SWP water and 43% local groundwater, Newhall customers received 37% SWP water and 63% local groundwater, and Pinetree customers received 56% SWP water and 44% local groundwater. Tesoro del Valle customers received 100% SWP water.

Valencia Water Company (VWC) supplies water to customers in Valencia, Stevenson Ranch, and portions of Castaic, Saugus, and Newhall. In 2005, VWC customers received 49% SWP water and 49% local groundwater. In addition, some large landscape customers received 2% recycled water.

The **DLR** is the smallest concentration of a contaminant that can be measured and reported. DLRs are set by DHS (same as MRL, Minimum Reporting Level, set by USEPA).

**PHG** and **MCLG** are the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA. PHGs are set by Cal EPA.

A **Primary MCL** is 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 residual disinfectant level (MRDL):** the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap. MRDLs are set by the USEPA.

**Maximum Residual Disinfectant Level Goal (MRDLG):** the level of a disinfectant added for water treatment below which there is no known or expected risk to health.

An **AL** is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. MCLs and ALs are set by DHS.

**Unregulated Contaminant Monitoring Rule (UCMR):** The Federal Safe Drinking Water Act (SDWA) requires the USEPA to establish criteria for a program to monitor unregulated contaminants and to publish a list of contaminants to be monitored. The Unregulated Contaminant Monitoring Regulation (UCMR) proposes analytical methods for fourteen specific contaminants, and requires monitoring for those contaminants in drinking water.

## Metals and Salts

Metals and salts are tested in wells once every three years and in Castaic Lake water every month. Alum (aluminum sulfate) is added at the ESFP to remove turbidity and, as a result, small concentrations of aluminum are found in its waters. Small quantities of naturally occurring arsenic are found in Castaic Lake and in a few wells. These are present due to the natural erosion of the rocks that waters travel over or through. Inorganic compounds such as salts and metals can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

A number of naturally occurring salts are found in both surface and well water. These include chloride, fluoride, nitrate, nitrite, calcium, magnesium, potassium, and sodium. Taken together they are called Total Dissolved Solids (TDS). Calcium and magnesium together are called "Hardness" and can deposit as scale.

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months of age. High 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. High nitrate levels 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. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are pregnant or caring for an infant, you should ask for advice from your health care provider. Nitrates are tested at least annually.

## Disinfection By-Products

Disinfection By-Products (DBPs), which include Trihalomethanes (THMs) and Haloacetic Acids (HAA5) are generated by the interaction between naturally occurring organic matter and disinfectants such as chlorine and ozone. THMs and HAA5 are measured at several points in each system and averaged once per quarter and reported as a running annual average.

## Trihalomethanes

Some people who use water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

## 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.

The most important microbiological drinking water tests are for bacteria. Water is tested for Total Coliform bacteria and for *Escherichia coli* (*E. coli*). The presence of *E. coli* indicates fecal contamination of waters. No *E. coli* was detected in any drinking waters in the SCV last year. Total coliforms are a group of bacteria that indicate water quality may have deteriorated. The MCL for total coliforms is 5 percent of all monthly tests showing positives for larger systems.

Additional microbiological tests for the water-borne parasites *Cryptosporidium parvum* and *Giardia lamblia* were performed on Castaic Lake water, and none were detected.

## 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 5 picoCuries per liter no further testing is required. If it is detected, the water must be checked for uranium and radium.

## Lead and Copper

The local water purveyors are required to sample for lead and copper at specific consumer taps. The results for lead and copper are reported as the 90th percentile. The 90th percentile is the result that is greater than 90% of all the results. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (800-426-4791).

## Organic Compounds

Organic chemical contaminants, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. Organic compounds also include pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Water is tested for two types of organic compounds: Volatile Organic Compounds (VOCs) and Non-Volatile Synthetic Organic Compounds (SOCs). These organic compounds are synthetic chemicals produced from industrial and agricultural uses. Castaic Lake is checked annually for VOCs and SOCs. Local wells are tested at least annually for VOCs and periodically for SOCs. Tetrachloroethylene (PCE) was found in trace levels (below the MCL) in groundwater in the SCV. Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

## Drinking Water Source Assessment and Protection

As part of DHS requirements, the purveyors of the Santa Clarita Valley conducted a Drinking Water Source Assessment and Protection (DWSAP) study for all of their groundwater sources. This study enables DHS and water utilities to collect information about each drinking water source and surrounding residential, commercial, and industrial activities. It was completed and provided to DHS in 2002.

As part of the program, "surrounding activities" which include schools, medical offices, gas stations and various other facilities around each water source are categorized and ranked as "Possible Contaminating Activities" (PCA). Groundwater wells in the Santa Clarita Valley provide good, safe drinking water to consumers. Below is a list of PCAs that may have contributed to trace levels of contaminants in local wells.

- ◆ Automobile/Gas stations, auto shops - tetrachloroethylene (PCE)
- ◆ Dry cleaners - tetrachloroethylene (PCE)
- ◆ Automobile repair shops
- ◆ Known contaminant plumes - Perchlorate

Trace levels of PCE (below the MCL) have been detected in three wells. PCE is a commonly used degreaser and is generally associated with discharge from factories, dry cleaners, and auto shops.

In addition, perchlorate was detected in six wells, all of which have been removed from service (one well was returned to service in late 2005 with the installation of a perchlorate removal facility). (A maximum contaminant level has not been set for perchlorate. Further information regarding perchlorate can be found in this report.)

Additional DWSAP information is available at your request from your local water purveyor. Contact names and numbers are supplied at the end of this report.

| THE RESULTS OF THOUSANDS OF TESTS ON YOUR WATER |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
|---|-------|---------------|---------------|-------------|------------------------------|---------|-------|--------------------------------------|---------|--------------|---------------------------|---------|--------------|---|---------|--------------|---|---------|--------------|--|---------|--------------|---|---------|-----------------------------|---------------------------------|---|
| PARAMETERS/<br>CONSTITUENTS                     | Units | MCL<br>(AL)   | MCLG<br>(PHG) | DLR/<br>MRL | Castaic Lake<br>Water Agency |         |       | CLWA Santa Clarita<br>Water Division |         |              | Valencia Water<br>Company |         |              | Newhall County<br>Water District<br>Castaic |         |              | Newhall County<br>Water District<br>Newhall |         |              | Newhall County<br>Water District<br>Pinetree |         |              | Newhall County<br>Water District<br>Tesoro★ |         |                             | Possible Source of Constituents |   |
|   |       |               |               |             | Range                        | Typical |       | Range                                | Typical |              | Range                     | Typical |              | Range                                       | Typical |              | Range                                       | Typical |              | Range  | Typical |              | Range                                       | Typical |                             |                                 |   |
| INORGANICS                                      |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Arsenic   | ug/L  | 50            | None          | 2           | Min.                         | Max.    | <DLR  | Min.                                 | Max.    | <DLR         | Min.                      | Max.    | <DLR         | Min.  | Max.    | <DLR         | Min.  | Max.    | <DLR         | Min.   | Max.    | 3.4          | Min.  | Max.    |                             | Naturally Occurring Element     |   |
| Barium  | ug/L  | 1000          | None          | 100         | <DLR                         | <DLR    | <DLR  | <DLR                                 | 103     | <DLR         | <DLR                      | <DLR    | <DLR         | <DLR  | <DLR    | <DLR         | <DLR  | <DLR    | <DLR         | <DLR   | <DLR    | <DLR         | <DLR  | <DLR    | <DLR                        | Naturally Occurring Element     |   |
| Fluoride  | mg/L  | 0.7-1.4**     | (1)           | None        | 0.13                         | 0.27    | 0.23  | 0.30                                 | 0.50    | 0.40         | 0.18                      | 0.89    | 0.44         | 0.47  | 0.60    | 0.51         | 0.4   | 0.4     | 0.4          | 0.40   | 0.50    | 0.44         |   |         | Naturally Occurring Element |                                 |   |
| Nitrate (as NO <sub>3</sub> )                   | mg/L  | 45            | (45)          | 2           | <DLR                         | 2.7     | 2.40  | 7.0                                  | 35.6    | 16.5         | 5                         | 39.3    | 17.9         | <2  | 9.8     | 2.45         | 15  | 30.2    | 25.0         | 9.4  | 15.1    | 10.9         |   |         |                             |                                 |   |
| Total Chromium                                  | ug/L  | 50            | 100           | 10          | <DLR                         | <DLR    | <DLR  | <DLR                                 | <DLR    | <DLR         | <DLR                      | 10      | <DLR         | <DLR  | <DLR    | <DLR         |   |         |              |  |         |              |   |         |                             |                                 |   |
| Selenium  | ug/L  | 50            |               | 5.0         |                              |         |       | <DLR                                 | <DLR    | <DLR         | <DLR                      | 5.7     | <DLR         |   |         |              |   |         |              |  |         |              |   |         |                             | Naturally Occurring Element     |   |
| Perchlorate                                     | ug/L  | (6)***        |               | 4.0         |                              |         |       |                                      |         |              | <DLR                      | 10      | <DLR         | <DLR  | <DLR    | <DLR         | <DLR  | <DLR    | <DLR         | <DLR   | <DLR    | <DLR         | <DLR  | <DLR    |                             | Industrial Pollutant            |   |
| Chromium IV                                     |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              | 1.8   | 1.0     | 1.47         | <DLR   | <DLR    | <DLR         |   |         |                             |                                 |   |
| ORGANICS  |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Tetrachloroethylene <sup>1</sup>                | ug/L  | 5             | (0.06)        | 0.5         | <DLR                         | <DLR    | <DLR  | <DLR                                 | 1.2     | <DLR         | <DLR                      | <DLR    | <DLR         | <DLR  | <DLR    | <DLR         |   |         |              |  |         |              |   |         |                             |                                 | Industrial Pollutant                                      |
| DISINFECTION BY-PRODUCTS                        |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Bromate (RVTP Only)                             | ug/L  | 10            | None          | 2           | <DLR                         | 21      | <DLR  |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 | Disinfection by-product                                   |
| Haloacetic Acids (HAA5)                         | ug/L  | 60            | 0             | 0.5         | 8                            | 30      | 16    | 0                                    | 39      | 9.6          | 0                         | 35      | 11.8         | 2.6   | 76      | 23.1         | 0   | 15      | 5.3          | 4.8  | 31      | 15.1         | 5.8   | 25      | 16.5                        | Disinfection by-product         |   |
| Trihalomethanes, Total (THMs)                   | ug/L  | 80            | 0             | 0.5         | 31                           | 126     | 47.7  | 5                                    | 140.1   | 29.2         | 1                         | 102     | 31.2         | 22.4  | 93.2    | 46.8         | 0.5   | 46.8    | 17.5         | 11.9   | 85.3    | 35           | 23.4  | 100.5   | 51.6                        | Disinfection by-product         |   |
| MICROBIOLOGICAL                                 |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Coliform % Positive Samples                     | %     | 5             | 0             | None        | 0                            | 1       | 0     | 0                                    | 1       | 0            | 0                         | 2       | 0            | 0   | 2       | 0            | 0   | 3       | 0            | 0  | 1       | 0            | 0   | 1       | 0                           | 0                               | Naturally occurring in the environment                    |
| CLARITY/TURBIDITY                               |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Surface Water Only                              | NTU   | 0.50          | None          |             | 0.05                         | 1       | 0.09  |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| RADIOLOGICAL                                    |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
| Alpha Activity, Gross                           | pCi/L | 15            | 0             | 1           | <DLR                         | <DLR    | <DLR  | <DLR                                 | 5.3     | <DLR         | <DLR                      | 4.3     | <DLR         | <3.0  | 3.2     | <3           | <3  | 5.5     | 2.75         | <3   | 7.2     | 3.55         |   |         |                             |                                 | Erosion of natural deposits                               |
| Radium 226 & 228, Total                         | pCi/L | 5             | 0             | 1           |                              |         | NA    | <DLR                                 | 1.22    | <DLR         | <DLR                      | <DLR    | <DLR         | <DLR  | <DLR    | <DLR         | <1  | <1      | <1           | <1   | <1.15   | 1            |   |         |                             |                                 | Erosion of natural deposits                               |
| Uranium   | pCi/L | 20            | (0.2)         | 2           |                              |         | NA    | <DLR                                 | 4.4     | <DLR         | <DLR                      | 2.48    | <DLR         | <DLR  | <DLR    | <DLR         | <2  | 2.08    | 1.04         | 2.01   | 8.04    | 4.07         |   |         |                             |                                 | Erosion of natural deposits                               |
| Year of Analysis                                |       |               |               |             |                              |         |       | 2005                                 |         |              |                           |         |              | 2005  |         |              |   |         |              | 2005   |         |              |   |         |                             |                                 |   |
| LEAD AND COPPER (Retailers Only)                |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
|   |       |               |               |             |                              |         |       | 90th Percentile                      | Tested  | Above the AL | 90th Percentile           | Tested  | Above the AL | 90th Percentile                             | Tested  | Above the AL | 90th Percentile                             | Tested  | Above the AL | 90th Percentile                              | Tested  | Above the AL | 90th Percentile                             | Tested  | Above the A                 |                                 |   |
| Copper  | ug/L  | (1300)        | (170)         | 50          |                              |         | NR    | 373                                  | 31      | 0            | 858                       | 32      | 1            | 664   | 20      | 0            | 918   | 30      | 1            | 869  | 24      | 1            | 407   | 39      | 0                           |                                 | Corrosion of household plumbing                           |
| Lead  | ug/L  | (15)          | (2)           | 5           |                              |         | NR    | 6                                    | 31      | 0            | 11.1                      | 32      | 2            | 6.8   | 20      | 1            | 6.4   | 30      | 1            | 6.6  | 24      | 1            | 15  | 40      | 4                           |                                 | Corrosion of household plumbing                           |
| Year of Analysis                                |       |               |               |             |                              |         |       | 2003                                 |         |              | 2004                      |         |              | 2003  |         |              | 2003  |         |              | 2003   |         |              | 2005  |         |                             |                                 |   |
| SECONDARY STANDARDS                             |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
|   |       |               |               |             | Secondary MCL                |         | Range | Typical                              |         | Range        | Typical                   |         | Range        | Typical                                     |         | Range        | Typical                                     |         | Range        | Typical                                      |         | Range        | Typical                                     |         | Range                       | Typical                         |   |
|   |       |               |               |             | Min.                         | Max.    | Min.  | Max.                                 | Min.    | Max.         | Min.                      | Max.    | Min.         | Max.  | Min.    | Max.         | Min.  | Max.    | Min.         | Max.   | Min.    | Max.         | Min.  | Max.    | Min.                        | Max.                            |   |
| Chlorides*                                      | mg/L  | 250/500/600   |               |             | 43                           | 66      | 49    | 22                                   | 111     | 63           | 28                        | 132     | 64           | 88  | 92      | 90           | 34  | 42      | 38           | 17   | 79      | 39.4         |   |         |                             |                                 | Runoff/leaching from natural deposits; seawater influence |
| Color   | Units | 15            |               |             | <5                           | <5      | <5    | <5                                   | <5      | <5           | <5                        | <5      | <5           | <5  | <5      | <5           | <5  | <5      | <5           | <5   | <5      | <5           | <5  | <5      | <5                          |                                 |   |
| Odor-Threshold                                  | Units | 3             |               |             | 1                            | 1       | 1     | 1                                    | 1       | 1            | 1                         | 1       | 1            | 1   | 1       | 1            | 1   | 1       | 1            | 1  | 1       | 1            | 1   | 1       | 1                           |                                 |   |
| Sulfates*                                       | mg/L  | 250/500/600   |               |             | 39                           | 86      | 70    | 43                                   | 183     | 137          | 76                        | 400     | 208          | 108   | 133     | 121          | 135   | 122     | 179          | 105  | 105     | 105          |   |         |                             |                                 | Runoff/leaching from natural deposits; industrial waste   |
| Turbidity                                       | NTU   | 5             |               |             | 0.06                         | 17      | 0.58  | 0.07                                 | 1.38    | 0.2          | 0.06                      | 0.3     | 0.1          | 0.09  | 0.16    | 0.13         | 0.08  | 0.15    | 0.12         | 1.90   | 1.9     | 1.9          |   |         |                             |                                 |   |
| Total Dissolved Solids*                         | mg/L  | 500/1000/1500 |               |             | 262                          | 303     | 280   | 328                                  | 747     | 699          | 414                       | 901     | 673          | 508   | 532     | 520          | 485   | 684     | 585          | 663  | 663     | 663          |   |         |                             |                                 | Runoff/leaching from natural deposits                     |
| ADDITIONAL TESTS                                |       |               |               |             |                              |         |       |                                      |         |              |                           |         |              |   |         |              |   |         |              |  |         |              |   |         |                             |                                 |   |
|   |       |               |               |             | Range                        | Typical |       | Range                                | Typical |              | Range                     | Typical |              | Range                                       | Typical |              | Range                                       | Typical |              | Range  | Typical |              | Range                                       | Typical |                             |                                 |   |
|   |       |               |               |             | Min.                         | Max.    | Min.  | Max.                                 | Min.    | Max.         | Min.                      | Max.    | Min.         | Max.  | Min.    | Max.         | Min.  | Max.    | Min.         | Max.   | Min.    | Max.         | Min.  | Max.    | Min.                        | Max.                            |   |
| Calcium   | mg/L  |               |               |             | 23                           | 41.0    | 36    | 71                                   | 122     | 85           | 82                        | 221     | 117          | 63  | 71      | 67           | 76  | 116     | 96           | 49   | 88      | 60.8         |   |         |                             |                                 |   |
| Magnesium                                       | mg/L  |               |               |             | 14                           | 17      | 16    | 11                                   | 35      | 23           | 21                        | 63      | 38           | 24  | 26      | 25           | 18  | 29      | 24           | 14   | 23      | 16.2         |   |         |                             |                                 |   |
| Sodium  | mg/L  |               |               |             | 39                           | 50      | 42    | 57                                   | 130     | 93           | 50                        | 123     | 83           | 62  | 73      | 68           | 52  | 57      | 55           | 47   | 130     | 79.6         |   |         |                             |                                 |   |
| Potassium                                       | mg/L  |               |               |             | 2.7                          | 3.1     | 3.0   | 2.5                                  | 4.5     | 4.0          | 1.7                       | 7.3     | 3.4          | 3.6   | 3.7     | 3.7          | 2.1   | 2.2     | 2.2          | 3.3  | 4       | 3.44         |   |         |                             |                                 |   |
| Hardness as CaCO3                               | mg/L  |               |               |             | 116                          | 178     | 156   | 144                                  | 472     | 364          | 291                       | 811     | 443          | 260   | 290     | 275          | 269   | 415     | 342          | 183  | 319     | 232          |   |         |                             |                                 |   |
| pH  | Units |               |               |             | 7.31                         | 8.5     | 7.7   | 7.29                                 | 7.83    | 7.4          | 7.34                      | 7.76    | 7.59         | 7.6   | 7.8     | 7.67         | 7.2   | 7.2     | 7.2          | 7.2  | 7.7     | 7.47         |   |         |                             |                                 |   |

★ All values for Tesoro water are the same as for CLWA water, except in the specific rows shown.

## Key for the Charts used in this Report

- \* There are three MCLs for these parameters: The first is the recommended, long term. The second is the upper, long term. The third is short term.

\*\* Depending on annual temperatures

\*\*\* Notification level

mg/L Milligram per Liter (1 milligram = 1/1,000 of a gram)

ug/L Microgram per Liter (1 microgram = 1/1,000,000 of a gram)

pCi/L Picocurie per Liter (1 picocurie is the amount of radiation given off by a trillionth of a gram of radium)

NA Not Analyzed

NR Not Required

- 1 Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.