



PROTECTING

Our Most Valuable Natural Resource

For 60 years, Suburban Water Systems (Suburban) has provided dependable, high-quality water that meets or exceeds federal and state health safety standards to thousands of families in the San Gabriel Valley and nearby areas. We are proud to report that 2012 was no exception.

WHO WE SERVE

Our service area is divided into two geographic areas: the San Jose Hills Service Area provides drinking water to West Covina and portions of Covina, Glendora, Walnut, Hacienda Heights, City of Industry and La Puente. The Whittier/La Mirada Service Area provides drinking water to La Mirada and portions of Whittier, Buena Park and La Habra.

PURPOSE OF THE REPORT

This annual water quality report has been developed in compliance with the state of California Department of Public Health (CDPH) and the United States Environmental Protection Agency (USEPA) regulations to keep you informed about Suburban's drinking water quality. You will find charts on the following pages that summarize the results of our year-long water quality testing program. To help you understand what these test results mean, we have also included information about significant constituents, measurements and water quality definitions.

DEDICATED TO QUALITY

Suburban collects more than 9,000 water samples, testing more than 100 constituents from wells, reservoirs, distribution systems, and residences each year to safeguard the quality of tap water. These samples are analyzed by independent, state-certified laboratories for various substances as mandated by law. The results of these samples are then submitted, by the independent labs, directly to the CDPH, which oversees water quality for all public water systems in California.



The water quality tables in this report provide specific results from Suburban's testing program and show how our water compares to state and federal standards.

During 2012, the CDPH conducted major inspections of Suburban's Whittier, La Mirada and San Jose Hills water systems. Together, these three systems serve 225,000 people or 97% of the population in Suburban's entire service area. The inspections included comprehensive on-site examination of water sources, treatment facilities, water storage tanks, and pumping facilities. CDPH reviewed maintenance and water quality records. The CDPH concluded that Suburban continues to make improvements to its facilities and operations that ensure a continuous supply of drinking water to customers, in compliance with state and federal regulations. In 2013, Suburban plans to replace some of its infrastructure such as aging pumps and pipelines, and to rehabilitate several of the older water storage tanks.

WATER QUALITY DATA 2012 To determine how the water quality in your area compares to government standards, find the average and range in the column(s) in the charts for your area and compare these values to the MCL and the PHG columns. For instance, Whittier, La Mirada, La Puente and La Habra customers should refer to the tables for "Suburban Water Systems Whittier and La Mirada Service Area Drinking Water Sources Tested in 2012". Covina, West Covina, Walnut, Hacienda Heights, City of Industry, La Puente and Glendora customers should refer to the tables for "Suburban Water Systems San Jose Hills Service Area Drinking Water Sources Tested in 2012". Please note that some customers receive water from more than one of our groundwater and surface water sources and should refer to the appropriate columns that represent their area. The cities served by a particular source of water are indicated in the tables beneath the description of the source. Results reported in the tables were detected in the water during the year 2012 or from the most recent tests.

WATER QUALITY STANDARDS The quality of drinking water in the United States is regulated by the USEPA.

Two state agencies, the CDPH and the California Public Utilities Commission (PUC) supplement and enforce federal USEPA standards. Standards established by these agencies are used to set limits for substances that may affect health or aesthetic qualities of water. **The water quality tables in this report cover the following standards:**

- **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 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.
- **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

In order to ensure that tap water is safe to drink, USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

WATER QUALITY GOALS The water Suburban delivers meets standards required by USEPA, CDPH, and PUC. Often, Suburban goes beyond what is required to monitor for constituents that have known health risks. The company uses only independent, state-certified water quality laboratories for testing. **The charts in this report include two types of water quality goals:**

- **Maximum Contaminant Level Goal (MCLG):** 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.
- **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.

CONTAMINANTS THAT MAY BE IN THE 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.

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 storm water 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 storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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.
- **Lead**, if present in elevated levels, 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. Suburban 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 two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at www2.epa.gov/lead.

NITRATE ADVISORY Nitrate can result from the presence of fertilizer. Nitrate in drinking water at levels above 45 milligrams per liter (mg/L) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. The level of nitrate in water provided by Suburban was well below 45 mg/L. The average nitrate concentration in water delivered to customers was 14 mg/L and was never above 32 mg/L.

ARE THERE RISKS? Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (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 (800) 426-4791.

PUBLIC PARTICIPATION OPPORTUNITIES

We value your input, concerns and suggestions. Please feel free to contact Michael Nutt, Communications Manager, at (626) 543-2531 or email him at mnutt@swwc.com to inquire about possible future public participation opportunities. Also, please feel free to contact Ken Reich, Quality Assurance Manager, at (626) 543-2575, if you have any questions about water quality. **In addition, a number of local water boards hold monthly meetings that are open to the public, including:**

- **Metropolitan Water District of Southern California**
Second Tuesday of the month, (213) 217-6000
- **Main San Gabriel Basin Watermaster**
First Wednesday of the month, (626) 815-1300
- **Upper San Gabriel Valley Municipal Water District**
First and third Tuesday of the month, (626) 443-2297
- **Central Basin Municipal Water District**
Fourth Monday of the month, (310) 217-2222
- **Three Valleys Municipal Water District**
First and third Wednesday of the month, (909) 621-5568.

CHLORAMINES During the summer months, Suburban purchases supplemental imported water for its San Jose Hills Service Area from Metropolitan Water District of Southern California (Metropolitan). Chlorine and ammonia are combined at Metropolitan treatment facilities to produce chloramines. Also, water delivered year-round to some of our customers in La Mirada and Buena Park contains chloramines, which are added at one of Suburban's treatment facilities. Chloramines are added to the water for public health protection because they prevent regrowth of bacteria in the distribution system pipes and also reduce the formation of certain chemicals that are regulated in drinking water. All of Suburban's water has some form of chlorine disinfectant residual at all times. Chloraminated water is safe for people and animals to drink, and for all other general uses.

Be advised that kidney dialysis units and aquarium owners must remove chloramines from water prior to use. Hospitals or dialysis centers should be aware of the chloramines from water and should install proper chloramines removal equipment, such as carbon adsorption units. Aquarium owners can use readily available products to remove or neutralize chloramines.

Should you have any questions or concerns regarding chloramines in your water, please contact Ken Reich, Suburban's Quality Assurance Manager, at (626) 543-2575 or Metropolitan at (213) 217-6850.

DRINKING WATER FLUORIDATION All water delivered by Suburban contains naturally occurring fluoride. In November 2007, Metropolitan joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from the CDPH, as well as the CDC, Metropolitan adjusts the natural fluoride level in imported water from the Colorado River and State Project water to the optimal range for dental health of 0.7 to 1.3 parts per million. Fluoride levels in the drinking water are limited under California state regulations at a maximum dosage of two parts per million.

To view a downloadable version of this report online, go to www.swwc.com/suburban/Suburban-CCR-2012.pdf.

WATER

THIS INFORMATION IS IMPORTANT! Please have someone translate it for you.

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

U.S. Centers for Disease Control & Prevention

www.cdc.gov/fluoridation/

California Department of Public Health

www.cdph.ca.gov/certlic/drinkingwater/pages/fluoridation.aspx

Suburban Water Systems

www.swwc.com/suburban/fluoride

Who Suburban Water Systems Serves



Our service area is divided into two geographic districts, the San Jose Hills Service District and Whittier/La Mirada Service District. We have outlined both districts in the map to help you find data that applies to your service area. To locate your district, find your home or business on the map and take note of the color of the area. The color will correspond with your district on the water quality data table included in this report.

- Whittier/La Mirada Service District
- San Jose Hills Service District

Esta información es importante.
Por favor pídale a alguien que se la traduzca.

這個資訊非常重要。
請他人為您翻譯一下。

この情報は重要です。
翻訳を依頼してください。

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

यह सूचना महत्वपूर्ण है।
कृपा करके किसी से इसका अनुवाद करावें।

这一信息非常重要。
请别人为您翻译一下。

Mahalaga ang impormasyong ito.
Mangyaring ipasalin ito.

ਇਹ ਸੂਚਨਾ ਮਹੱਤਵਪੂਰਨ ਹੈ।
ਵਿਧਾ ਕਰਵੇ ਕਿਸੀ ਤੋ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

هذه المعلومات هامة
الرجاء أن تجعل أحد الأشخاص يساعدك في ترجمتها.

San Jose Hills Service Area

Including West Covina and Portions of Covina, Glendora, City of Industry, Hacienda Heights and La Puente

Source Water and Water Quality Assessments

Suburban provides drinking water for the San Jose Hills Service Area from its wells in the Main San Gabriel Basin. In 2012, Suburban also purchased and distributed supplemental drinking water from the following sources: 1) treated groundwater from La Puente Valley County Water District (LPVCWD) and Valley County Water District (VCWD); 2) treated San Gabriel River water from Covina Irrigating Company (CIC); and 3) treated imported surface water from Metropolitan Water District of Southern California (Metropolitan).

Suburban and the utilities providing supplemental water to Suburban have completed source water assessments in accordance with the federal Safe Drinking Water Act. The purpose of the source water assessment is to promote source water protection by identifying types of activities in the proximity of sources which could pose a threat to water quality. You may request summaries of the assessments by contacting Ken Reich, Suburban's Quality Assurance Manager, at (626) 543-2575 or you may request complete copies from the California Department of Public Health at (818) 551-2049.

SUBURBAN WATER SYSTEMS SAN JOSE HILLS DISTRIBUTION SYSTEM WATER QUALITY TESTED IN 2012

| Chemical | MCL (MRDL/MRDLG) | Covina | | Glendora | | West Covina (1) | | MCL Violation? | Typical Source Of Contaminant |
|--------------------------------|------------------|---------|-----------|----------|-----------|-----------------|-----------|----------------|-------------------------------|
| | | Average | Range | Average | Range | Average | Range | | |
| Disinfection Byproducts | | | | | | | | | |
| Total Trihalomethanes (ppb) | 80 | 41 | 36 - 78 | 50 | 25 - 82 | 5.2 | ND - 26 | No | Byproducts of Disinfection |
| Haloacetic Acids (ppb) | 60 | 44 | 21 - 46 | 46 | 17 - 39 | 1.1 | ND - 11 | No | Byproducts of Disinfection |
| Chlorine Residual (ppm) | (4 / 4) | 1.1 | 0.4 - 2.4 | 1.1 | 0.1 - 1.6 | 1.2 | 0.1 - 3.5 | No | Disinfectant for Treatment |
| Aesthetic Quality | | | | | | | | | |
| Color (color units) | 15* | ND | ND | ND | ND | ND | ND | No | Erosion of Natural Deposits |
| Turbidity (ntu) | 5* | 0.1 | ND - 0.2 | 0.1 | ND - 0.2 | 0.1 | ND - 0.6 | No | Erosion of Natural Deposits |
| Odor (threshold odor number) | 3* | 1 | 1 | 1 | 1 | 1 | 1 | No | Erosion of Natural Deposits |

Covina - 2 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; 1 location is tested weekly for color, odor and turbidity.

Glendora - 2 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; 1 location is tested weekly for color, odor and turbidity.

West Covina - 8 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; 13 locations are tested weekly for color, odor and turbidity.

MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **ntu** = nephelometric turbidity units; **ND** = not detected; **<** = average is less than the detection limit for reporting purposes

(1) West Covina area includes the cities of West Covina, La Puente, Industry, Hacienda Heights, and Walnut.

*Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

| Bacterial Quality | MCL (MCLG = 0) | Highest Number Positive | | Highest Percent Positive West Covina | MCL Violation? | Typical Source Of Contaminant |
|-------------------------|---|-------------------------|----------|--------------------------------------|----------------|--|
| | | Covina | Glendora | | | |
| Total Coliform Bacteria | No more than 5% monthly positive samples for West Covina; no more than one monthly positive for Glendora and Covina | 0 | 0 | 0.5% | No | Bacteria that occur naturally in soils and water |

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

| Metal | Action Level | Public Health Goal | Ninetieth Percentile Value | | | Sites Exceeding the AL/Sites Tested | | | AL Violation? | Typical Source Of Contaminant |
|--------------|--------------|--------------------|----------------------------|----------|-------------|-------------------------------------|----------|-------------|---------------|---------------------------------|
| | | | Covina | Glendora | West Covina | Covina | Glendora | West Covina | | |
| Copper (ppm) | 1.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0 / 10 | 0 / 20 | 0 / 53 | No | Corrosion of Household Plumbing |
| Lead (ppb) | 15 | 0.2 | ND <5 | ND <5 | ND <5 | 0 / 10 | 0 / 20 | 0 / 53 | No | Corrosion of Household Plumbing |

In the San Jose Hills service area, the most recent lead and copper at-the-tap samples were collected from residences in 2010. None of the samples for lead and copper exceeded the respective Action Level (AL). A regulatory Action Level is the concentration of a contaminant which if exceeded triggers treatment or other requirements that a water system must follow.

WATER



Photo courtesy of Weck Laboratories, Inc.

San Jose Hills Service Area CONT'D

Groundwater Assessments

Suburban, VCWD and LPVCWD source water assessments were completed from 2002 through 2008 and concluded that groundwater sources are most vulnerable to the following activities: leaking underground storage tanks; known contaminant plumes from industrial waste discharges; landfills/dumps; gas stations; transportation corridors; machine shops; pesticide/fertilizer/petroleum storage and transfer areas; and agricultural drainage.

Surface Water Assessments

Every five years, Metropolitan and CIC are required to examine and update possible sources of drinking water contamination in their surface water source waters. These reports are called watershed sanitary surveys. Metropolitan's most recent surveys were completed in March 2012 (Colorado River) and May 2012 (State Water Project). Both source waters are considered most vulnerable to contamination from stormwater runoff, agriculture, urbanization, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality.

SUBURBAN WATER SYSTEMS SAN JOSE HILLS SERVICE AREA DRINKING WATER SOURCES TESTED IN 2012

| Areas Served by Drinking Water Sources in 2012 | | | Covina Irrigating Company | | Metropolitan Water District | | Local Treated Groundwater | | Areas Served by Drinking Water Sources in 2012 | |
|--|--|------------|---------------------------|-------------|-----------------------------|-----------|---------------------------|-----------|--|--|
| Chemical | MCL | PHG (MCLG) | Average | Range | Average | Range | Average | Range | MCL Violation? | Typical Source of Contaminant |
| Organic Chemicals | | | | | | | | | | |
| 1,1-Dichloroethylene (ppb) | 6 | 10 | ND | ND | ND | ND | <0.5 | ND - 2 | No | Industrial Solvent Contamination |
| Tetrachloroethylene (ppb) | 5 | 0.06 | ND | ND | ND | ND | <0.5 | ND - 1.6 | No | Industrial Solvent Contamination |
| Trichloroethylene (ppb) | 5 | 1.7 | ND | ND | ND | ND | 0.6 | ND - 3.6 | No | Industrial Solvent Contamination |
| Radiologicals | | | | | | | | | | |
| Alpha Radiation (pCi/L) | 15 | (0) | ND | ND | <3 | ND - 3 | <3 | ND - 7.6 | No | Erosion of Natural Deposits |
| Beta Radiation (pCi/l) | 50 | (0) | ND | ND | 4 | ND - 6 | NR | NR | No | Decay of Natural and Man-Made Deposits |
| Radium 226 + 228 (pCi/L) | 5 | (0) | ND | ND | ND | ND | <1 | ND - 1.7 | No | Decay of Natural and Man-Made Deposits |
| Uranium (pCi/L) | 20 | 0.43 | ND | ND | 2 | 1 - 2 | 2.6 | ND - 7.5 | No | Erosion of Natural Deposits |
| Inorganic Chemicals | | | | | | | | | | |
| Aluminum (ppm) | 1 | 0.6 | 0.09 | 0.09 - 0.1 | 0.12 | ND - 0.21 | ND | ND | No | Treatment Residue, Natural Deposits |
| Arsenic | 10 | 0.004 | ND | ND | ND | ND | ND | ND | No | Decay of Natural and Man-Made Deposits |
| Barium (ppm) | 1 | 2 | ND | ND | ND | ND | <0.1 | ND - 0.2 | No | Runoff or Leaching from Natural Deposits |
| Chromium Total (ppb) | 50 | (100) | ND | ND | ND | ND | <10 | ND - 11 | No | Runoff or Leaching from Natural Deposits |
| Fluoride (ppm) natural | 2 | 1 | 0.39 | 0.36 - 0.42 | NR | NR | 0.40 | 0.24-0.47 | No | Runoff or Leaching from Natural Deposits |
| Fluoride (ppm) Treatment | Control Range 0.7 - 1.3 ppm Optimal Level 0.8 ppm | | NR | NR | 0.8 | 0.6 - 1.1 | NR | NR | No | Water Additive for Dental Health |
| Nitrate (ppm as Nitrate) | 45 | 45 | ND | ND | ND | ND | 14 | 4 - 32 | No | Fertilizers, Septic Tanks |
| Perchlorate (ppb) | 6 | 4 | ND | ND | ND | ND | 1.1 | ND - 4.5 | No | Industrial Contamination |
| Secondary Standards* | | | | | | | | | | |
| Aluminum (ppb) | 200* | 600 | 94 | 89 - 98 | 120 | ND - 210 | ND | ND | No | Treatment Residue, Natural Deposits |
| Chloride (ppm) | 500* | n/a | 6.4 | 6.2 - 6.6 | 90 | 85-95 | 22 | 15 - 41 | No | Runoff or Leaching from Natural Deposits |
| Color (color units) | 15* | n/a | ND | ND | 1 | 1 | ND | ND | No | Naturally Occurring Organic Substances |
| Odor (TON) | 3* | n/a | 1 | 1 | 2 | 2 | 1 | 1 | No | Naturally Occurring Organic Materials |
| Specific Conductance (µmho) | 1,600* | n/a | 370 | 350 - 390 | 740 | 350 - 930 | 497 | 440-710 | No | Ions in Water |
| Sulfate (ppm) | 500* | n/a | 20 | 17 - 23 | 140 | 130 - 160 | 31 | ND - 55 | No | Runoff or Leaching from Natural Deposits |
| Total Dissolved Solids (ppm) | 1,000* | n/a | 220 | 210 - 230 | 470 | 450 - 490 | 339 | 240 - 800 | No | Runoff or Leaching from Natural Deposits |
| Turbidity (ntu) | 5* | n/a | 0.05 | 0.03 - 0.17 | ND | ND | ND | ND | No | Runoff or Leaching from Natural Deposits |
| Unregulated Contaminants | | | | | | | | | | |
| Alkalinity, Total (ppm as CaCO3) | Not Regulated | n/a | 175 | 170 - 180 | 95 | 61 - 120 | 178 | 120 - 200 | n/a | Runoff or Leaching from Natural Deposits |
| Calcium (ppm) | Not Regulated | n/a | 47 | 43 - 50 | 46 | 45 - 48 | 53 | 41 - 100 | n/a | Runoff or Leaching from Natural Deposits |
| Hardness, Total (ppm as CaCO3) | Not Regulated | n/a | 170 | 160 - 180 | 200 | 80 - 270 | 179 | 140 - 360 | n/a | Runoff or Leaching from Natural Deposits |
| Hardness, Total (grains/gal) | Not Regulated | n/a | 10 | 9 - 11 | 12 | 5 - 16 | 11 | 8 - 21 | n/a | Runoff or Leaching from Natural Deposits |
| Magnesium (ppm) | Not Regulated | n/a | 12 | 12 | 20 | 19 - 20 | 13 | 10 - 20 | n/a | Runoff or Leaching from Natural Deposits |
| N-Nitrosodimethylamine (ppt) | NL = 10 | n/a | ND | ND | <2 | ND - 3.0 | <2 | ND - 6.5 | n/a | Industrial Contamination, Disinfection Byproduct |
| pH (pH units) | Not Regulated | n/a | 7.9 | 7.8 - 8.0 | 8.1 | 7.9 - 8.6 | 7.3 | 6.6 - 7.7 | n/a | Acidity, Hydrogen Ions |
| Potassium (ppm) | Not Regulated | n/a | 3.7 | 3.5 - 3.8 | 3.9 | 3.7 - 4.1 | 2.8 | 2.1 - 5.0 | n/a | Runoff or Leaching from Natural Deposits |
| Sodium (ppm) | Not Regulated | n/a | 12 | 12 | 78 | 74 - 82 | 31 | 21 - 41 | n/a | Runoff or Leaching from Natural Deposits |
| Total Organic Carbon (ppm) | TT | n/a | 1.4 | 1.1 - 1.8 | 2.3 | 1.8 - 2.6 | NR | NR | n/a | Various Natural and Man-Made Sources |

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; ND = not detected; n/a = not applicable; NR = not required to be tested; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; µmho/cm = micromho per centimeter; NL = Notification Level; TT = Treatment Technique; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

| Turbidity - Combined Filter Effluent | Treatment Technique | Turbidity Measurements | TT Violation? | Typical Source | Importance of Removing Turbidity in Drinking Water |
|---|---------------------|------------------------|---------------|----------------|---|
| Metropolitan Water District Weymouth Filtration Plant 1) Highest single turbidity measurement 2) Percentage of samples less than 0.3 NTU | 1 NTU | 0.04 | No | Soil Run-Off | Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's and CIC's treated water is a good indicator of effective filtration. Filtration is called a treatment technique (TT). A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly. |
| | 100% | 100% | No | Soil Run-Off | |
| Covina Irrigating Company Temple Filtration Plant 1) Highest single turbidity measurement 2) Percentage of samples less than 0.2 NTU | 1 NTU | 0.17 | No | Soil Run-Off | |
| | 95% | 100% | No | Soil Run-Off | |

Whittier/La Mirada Service Area

Including La Mirada and Portions of Whittier, La Habra and Buena Park

Source Water and Water Quality Assessments

Suburban provides drinking water for its Whittier/La Mirada Service Area (La Mirada and portions of Whittier, La Habra and Buena Park) from its four active wells in the Main San Gabriel Basin and two wells in the Central Basin. Suburban also purchased supplemental drinking water from California Domestic Water Company (Cal Domestic). Cal Domestic water comes from wells in the Main San Gabriel Basin. Suburban has a connection to purchase imported water from the Metropolitan Water District of Southern California (Metropolitan). This water was not served during 2012.

Suburban and Cal Domestic have completed source water assessments in accordance with the federal Safe Drinking Water Act. The purpose of the source water assessment is to promote source water protection by identifying types of activities in the proximity of sources which could pose a threat to the water quality.

Suburban and Cal Domestic source water assessments were completed in 2002 and concluded that groundwater sources are most vulnerable to the following activities or facilities associated with contaminants detected in the water supply: leaking underground storage tanks, known contaminant plumes from industrial waste discharges, and gas stations. In addition, these sources are vulnerable to the following

activities and facilities not associated with contaminants detected in the water supply: pesticide/fertilizer/petroleum storage and transfer areas, metal and machine shops, and agricultural drainage. You may request a summary of the assessments by contacting Ken Reich, Suburban's Quality Assurance Manager at (626) 543-2575, or you may request a complete copy from the California Department of Public Health (CDPH) at (818) 551-2049.

Cal Domestic Water Company Water Quality Violation

On January 5, 2012, Suburban was notified by Cal Domestic that it had removed its Volatile Organic Chemical (VOC) Treatment Facility from service because an equipment malfunction had allowed levels of two VOCs, Tetrachloroethylene (PCE) and Trichloroethylene (TCE), to exceed the Maximum Contaminant Level (MCL) allowed in drinking water. Cal Domestic estimates that Suburban potentially purchased water exceeding the PCE and TCE MCL for a minimum of eight and a maximum of 15 days. Following corrective actions taken by Cal Domestic, all water sample results returned to normal and CDPH was satisfied that the problem had been resolved. Some people who use water containing PCE and TCE in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

SUBURBAN WATER SYSTEMS WHITTIER AND LA MIRADA AREA DISTRIBUTION SYSTEM WATER QUALITY TESTED IN 2012

| Chemical | MCL | Whittier and La Habra (1) | | La Mirada and Buena Park (2) | | MCL Violation? | Typical Source of Contaminant |
|--------------------------------|--------------|---------------------------|-----------|------------------------------|-----------|----------------|-------------------------------------|
| | (MRDL/MRDLG) | Average | Range | Average | Range | | |
| Disinfection Byproducts | | | | | | | |
| Total Trihalomethanes (ppb) | 80 | 15 | 4.8 - 30 | 17 | ND - 71 | No | Byproducts of Chlorine Disinfection |
| Haloacetic Acids (ppb) | 60 | 3.0 | 1.1 - 5.7 | 3.9 | ND - 26 | No | Byproducts of Chlorine Disinfection |
| Chlorine Residual (ppm) | (4 / 4) | 1.1 | 0.4 - 1.9 | 1.1 | 0.2 - 2.8 | No | Disinfectant Added for Treatment |
| Aesthetic Quality | | | | | | | |
| Color (color units) | 15* | ND | ND | <1 | ND - 5 | No | Erosion of Natural Deposits |
| Turbidity (ntu) | 5* | <0.1 | ND - 2.7 | <0.1 | ND - 1.9 | No | Erosion of Natural Deposits |
| Odor (threshold odor number) | 3* | 1 | 1 | 1 | 1 | No | Erosion of Natural Deposits |

(1) **Whittier System** - 8 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; 6 locations are tested weekly for color, odor and turbidity.
 (2) **La Mirada System** - 4 locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; 5 locations are tested weekly for color, odor and turbidity.
MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; ntu = nephelometric turbidity units; **ND** = not detected
 < = average is less than the detection limit for reporting purposes; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

| Bacterial Quality | MCL | MCLG | Highest Monthly Percent Positives | | | | Typical Source of Contaminant |
|-------------------------|-----------------------------------|------|-----------------------------------|----------------|--------------------------|----------------|--------------------------------------|
| | | | Whittier and La Habra | MCL Violation? | La Mirada and Buena Park | MCL Violation? | |
| Total Coliform Bacteria | No more than 5% monthly positives | 0 | 0 | No | 1.3 | No | Naturally present in the environment |

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

| Metal | Action Level | PHG | Ninetieth Percentile Value | | Sites Exceeding the AL/Sites | | AL Violation? | Typical Source of Contaminant |
|--------------|--------------|-----|----------------------------|--------------|------------------------------|--------------|---------------|---------------------------------|
| | | | Whittier/LH | La Mirada/BP | Whittier/LH | La Mirada/BP | | |
| Copper (ppm) | 1.3 | 0.3 | 0.2 | 0.2 | 0/30 | 0/30 | No | Corrosion of Household Plumbing |
| Lead (ppb) | 15 | 0.2 | ND <5 | ND <5 | 0/30 | 0/30 | No | Corrosion of Household Plumbing |

In the Whittier and La Mirada service areas, the most recent lead and copper at-the-tap samples were collected from residences in 2010. None of the samples for lead and copper exceeded the respective Action Level (AL). A regulatory Action Level is the concentration of a contaminant which if exceeded triggers treatment or other requirements that a water system must follow.



WATER



SUBURBAN WATER SYSTEMS WHITTIER AND LA MIRADA SERVICE AREA DRINKING WATER SOURCES TESTED IN 2012

| Areas Served by Drinking Water Sources in 2012 | | | California Domestic Water Co. Groundwater | | Suburban Water Systems Groundwater | | Areas Served by Drinking Water Sources in 2012 | |
|--|---------------|------------|---|-------------|---|-------------|--|--|
| Areas Served by Drinking Water Sources in 2012 | | | Whittier, La Mirada, Buena Park, La Habra | | Whittier, La Mirada, Buena Park, La Habra | | Areas Served by Drinking Water Sources in 2012 | |
| Chemical | MCL | PHG (MCLG) | Average | Range | Average | Range | MCL Violation? | Typical Source of Contaminant |
| Organic Chemicals | | | | | | | | |
| cis-1,2-Dichloroethylene (ppb) | 6 | 100 | ND | ND | <0.5 | ND - 0.6 | No | Industrial Solvent Contamination |
| Tetrachloroethylene (ppb) | 5 | 0.06 | 0.6 | ND - 6.5 | ND | ND | Yes | Industrial Solvent Contamination |
| Trichloroethylene | 5 | 1.7 | 1.3 | ND - 13 | ND | ND | Yes | Industrial Solvent Contamination |
| Radiologicals | | | | | | | | |
| Alpha Radiation (pCi/L) | 15 | (0) | <3 | ND - 8 | 1.2 | ND - 4.1 | No | Erosion of Natural Deposits |
| Uranium (pCi/L) | 20 | 0.43 | 3 | 2 - 5 | 1.6 | ND - 2.5 | No | Erosion of Natural Deposits |
| Inorganic Chemicals | | | | | | | | |
| Arsenic (ppb) | 10 | 0.004 | <2 | ND - 2.2 | <2 | ND - 2.3 | No | Erosion of Natural Deposits |
| Barium (ppm) | 1 | 2 | 0.12 | 0.11 - 0.12 | <0.1 | ND - 0.11 | No | Erosion of Natural Deposits |
| Fluoride (ppm) Naturally Occurring | 2 | 1 | 0.31 | 0.31 - 0.32 | 0.38 | 0.20 - 0.53 | No | Erosion of Natural Deposits |
| Nitrate (ppm as Nitrate) | 45 | 45 | 16 | 14 - 20 | 5 | ND - 14 | No | Fertilizers, Septic Tanks |
| Nitrate+Nitrite (ppm as N) | 10 | 10 | 4 | 4 | ND | ND | No | Fertilizers, Septic Tanks |
| Secondary Standards* | | | | | | | | |
| Chloride (ppm) | 500* | n/a | 20 | 18 - 22 | 76 | 33 - 100 | No | Leaching from Natural Deposits |
| Color (color units) | 15* | n/a | <3 | <3 | <3 | ND - 15 | No | Naturally Occurring Organic Substances |
| Manganese (ppb) | 50* | n/a | ND | ND | <20 | ND - 50 | No | Erosion of Natural Deposits |
| MBAS - Surfactants (ppb) | 500* | n/a | 60 | ND - 120 | ND | ND | No | Municipal and Industrial Waste |
| Odor (TON) | 3* | n/a | 1 | 1 | <1 | ND - 1 | No | Naturally Occurring Organic Materials |
| Specific Conductance (µmho/cm) | 1,600* | n/a | 490 | 480 - 520 | 820 | 630 - 900 | No | Ions in Water; Seawater Influence |
| Sulfate (ppm) | 500* | n/a | 47 | 45 - 48 | 110 | 80 - 130 | No | Erosion of Natural Deposits |
| Total Dissolved Solids (ppm) | 1,000* | n/a | 295 | 290 - 300 | 520 | 370 - 600 | No | Erosion of Natural Deposits |
| Turbidity (ntu) | 5* | n/a | <0.1 | ND - 0.3 | 0.07 | ND - 1.6 | No | Erosion of Natural Deposits |
| Unregulated Contaminants | | | | | | | | |
| Alkalinity, Total (ppm as CaCO3) | Not Regulated | n/a | 155 | 150 - 160 | 190 | 150 - 270 | n/a | Erosion of Natural Deposits |
| Calcium (ppm) | Not Regulated | n/a | 68 | 66 - 70 | 58 | 39 - 93 | n/a | Erosion of Natural Deposits |
| Hardness, Total (ppm as CaCO3) | Not Regulated | n/a | 220 | 210 - 230 | 202 | 160 - 310 | n/a | Erosion of Natural Deposits |
| Hardness, Total (grains/gal) | Not Regulated | n/a | 13 | 12 - 14 | 12 | 9 - 18 | n/a | Erosion of Natural Deposits |
| Magnesium (ppm) | Not Regulated | n/a | 13 | 12 - 13 | 14 | 12 - 18 | n/a | Erosion of Natural Deposits |
| pH (pH units) | Not Regulated | n/a | 7.5 | 7.4 - 7.7 | 8.0 | 7.6 - 8.2 | n/a | Acidity, Hydrogen Ions |
| Potassium (ppm) | Not Regulated | n/a | 3.7 | 3.4 - 3.9 | 4 | 3 - 5 | n/a | Erosion of Natural Deposits |
| Sodium (ppm) | Not Regulated | n/a | 17 | 15 - 18 | 90 | 59 - 140 | n/a | Erosion of Natural Deposits |

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; ND = not detected; n/a = not applicable; NR = not required to be tested; TT = Treatment Technique; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; µmho/cm = micromho per centimeter; NL = Notification Level;

*Contaminant is regulated by a secondary standard to maintain aesthetic qualities.

WATER



To view a downloadable version of this report online, go to www.swwc.com/suburban/Suburban-CCR-2012.pdf.



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