CONSUMER CONFIDENCE REPORT 2011

CITY OF SANTA CLARA WATER UTILITY

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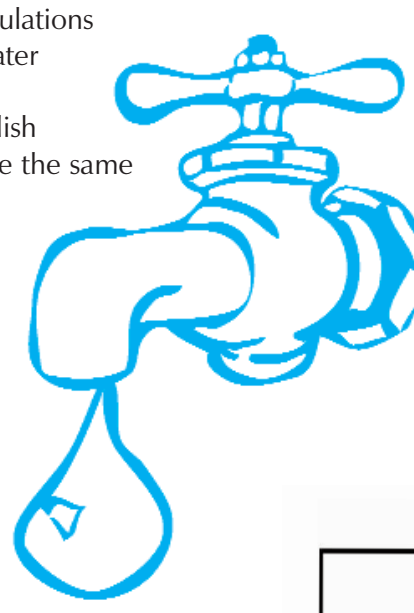
The City of Santa Clara is committed to providing you, the water consumer, with a safe and reliable supply of high quality drinking water. Each year we publish our annual water quality report known as the Consumer Confidence Report. This is our 23rd annual report on water quality. It contains the latest water quality monitoring results obtained through the end of calendar year 2010. It answers some of the most common water quality questions asked by our customers. We hope it will provide the facts and perspectives you need to make an informed evaluation of your tap water.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The California Department of Public Health regulations also establish limits for contaminants in bottled water that provide the same protection for public health.



This report has been prepared in accordance with the requirements of the Safe Drinking Water Act and State regulations. Although the water you receive is tested for over 100 potential contaminants and 48 other parameters, the majority of the potential contaminants are never detected. To simplify the report, only the constituents that were detected in at least one water source appear in the water quality table. We are also required by the State to provide additional information about certain constituents that appear on the water quality table even though the water meets all applicable drinking water standards.

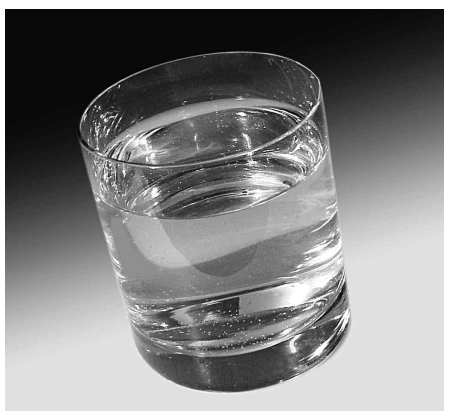
Q: What are the standards that drinking water must meet?

A: The quality of drinking water is carefully regulated by the Federal Government. In 1974, Congress passed the Safe Drinking Water Act, requiring the United States Environmental Protection Agency (USEPA) to establish uniform standards for drinking water. The Safe Drinking Water Act was further amended in 1986 and 1996, adding even more stringent standards. In California, these standards are enforced by the California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management.

There are two types of drinking water standards. **PRIMARY STANDARDS** are designed to protect public health. These standards specify the limits, called "Maximum Contaminant Levels" (MCLs) for substances in water that may be harmful to humans or affect their health if consumed in large quantities. **SECONDARY STANDARDS** are based on aesthetic qualities of water such as color, taste and odor. These standards specify limits for substances that may affect consumer acceptance of the water. Both Primary and Secondary Standards are listed in this Report.

It is important to us that you, the water consumer, have current and factual information about your water supply. In this latest issue of our Report, we hope to further your understanding and strengthen your confidence in the quality and integrity of the water supplied to you by the City of Santa Clara. We take great pride in delivering the safest and highest quality water available.

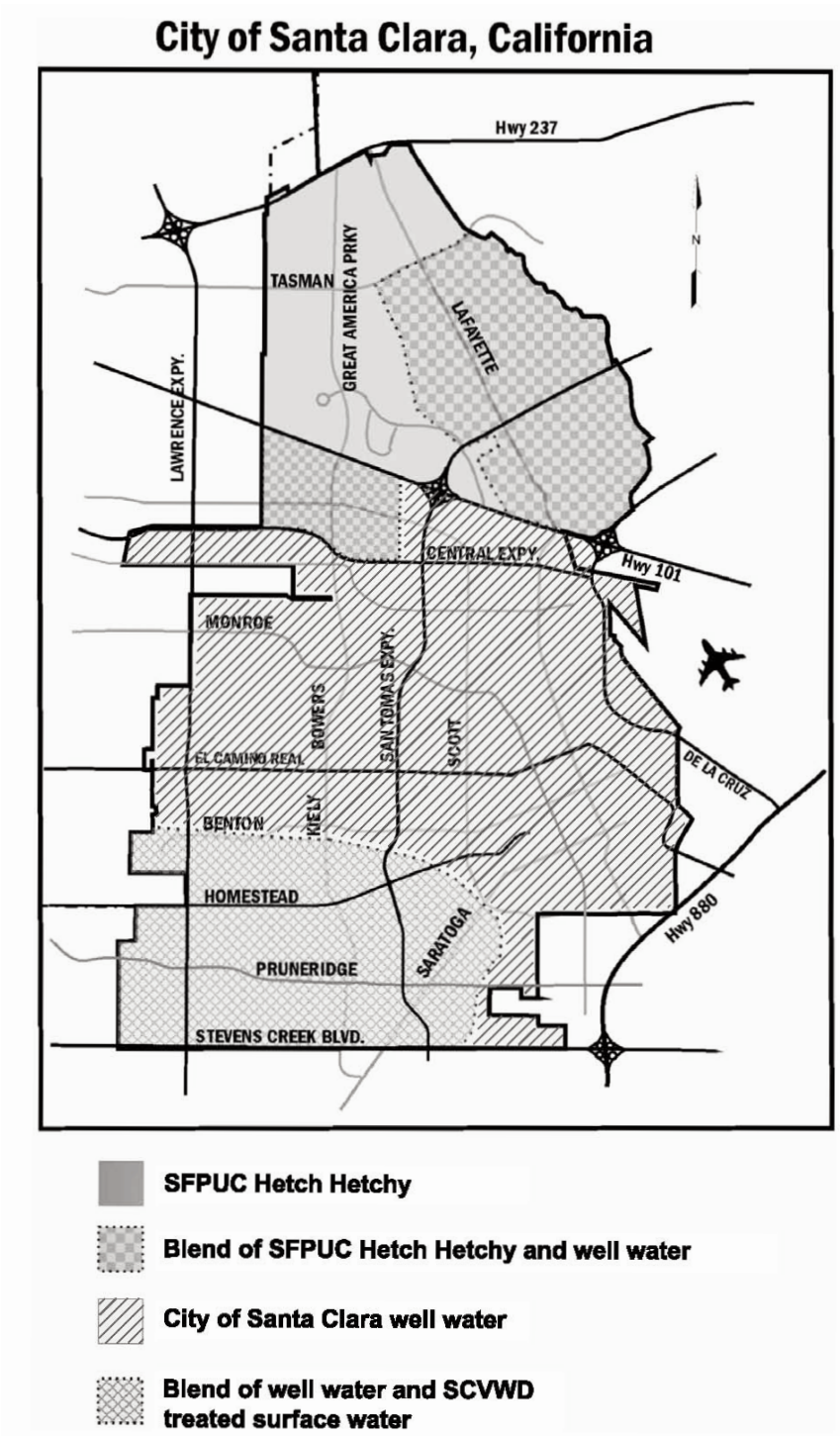
If you have any questions about the information in this report, or if you want to participate in water quality related issues, please call us at **408-615-2000**. You may also attend regularly scheduled City Council meetings at 7 p.m. on two Tuesdays each month in the Council Chambers of City Hall, 1500 Warburton Avenue, Santa Clara.



Q: Where does our water come from?

A: The City of Santa Clara has three separate sources of drinking water. Often, these sources are used interchangeably or are blended together. Together, these sources provide an average of 22 million gallons of water per day to the homes, businesses, industries and institutions of Santa Clara. In 2010 about 32% of our water was treated surface water purchased from the Santa Clara Valley Water District (District), imported from the Sacramento-San Joaquin Delta, and from the San Francisco Public Utility Commission's (SFPUC) Hetch Hetchy System (imported from the Sierra Nevada Mountains).

District water serves primarily the southwesterly portion of the City. Hetch Hetchy water typically serves the area north of Highway 101. The remaining 68% is pumped from our system of 27 deep wells serving the rest of the City. Refer to the map below. It shows the general areas served by the different water sources.



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

Attencion: Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

INFORMATION ABOUT THE DRINKING WATER SOURCE ASSESSMENT PROGRAM:

The City has completed a Drinking Water Source Assessment Program and Plan (DWSAP) for the groundwater sources. The DWSAP was completed in August 2002 and submitted to the CDPH in December 2002. A copy of the DWSAP is available at the City's Water Utility offices at 1500 Warburton Avenue, Santa Clara. You may request a summary of the individual assessments by contacting the Water Utility at 408-615-2000 or by email at **water@santaclaraca.gov**.

The City's groundwater sources are considered most vulnerable to contamination from leaking underground tanks containing fuel or dry-cleaning chemicals; old, unrecorded septic systems; storm drain dry wells located at various places around the City; many old, shallow, private wells, abandoned and not properly destroyed; and possibly some contaminants from a small landfill dump left over from the early part of the 20th century.

The City owns and operates 27 active deep wells. Only one well shows measurable contamination from regulated solvents, Well 24. This well is still in operation and the solvent level is monitored frequently. The contaminants are attributed to a plume from a nearby CERCLA (Superfund) site. Refer to the accompanying table for details.

The City purchases water from the **Hetch Hetchy System**. The SFPUC aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy and its neighboring watersheds is prepared to evaluate their sanitary conditions, water quality, and potential contamination sources. The report also presents performance results of watershed management activities implemented by the SFPUC and its partner agencies, such as the National Parks Service, to reduce or eliminate potential contamination sources. The 2007 sanitary survey concludes that very low levels of contaminants associated with wildlife and human activities exist in the Sierra Nevada watersheds. The SFPUC complies with monitoring and reporting requirements to protect its watersheds and to update its watershed sanitary surveys for the Hetch Hetchy supply annually.

The SFPUC also conducts sanitary surveys of the two local watersheds (the **Alameda Watershed** and the **Peninsula Watershed**) every five years. The potential contamination sources identified in the 2005 survey are similar to the Sierra Nevada watersheds. These surveys reports are available at the CDPH San Francisco District office (510-620-3474).

The District provides treated surface water to our water system from the **Rinconada Water Treatment Plant**, one of three water treatment plants the District operates. District surface water is imported from the South Bay Aqueduct, Lake Del Valle and San Luis Reservoir, which all draw water from the Sacramento - San Joaquin Delta watershed. The District's local water sources include Anderson and Calero Reservoirs. The District's source waters are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. The imported sources are also vulnerable to wastewater treatment plant discharges, seawater intrusion, and wildland fires in open space areas. In addition, local sources are vulnerable to potential contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in the District's treated water. The water treatment plants provide multiple barriers for physical removal and disinfection of contaminants. For additional information, visit the District website at **www.valleywater.org**.

Q: Is fluoride added to our water?

A: Fluoride is nature's cavity fighter. Fluoridation adjusts the naturally occurring fluoride in drinking water to the ideal level for protecting your teeth. Fluoridated drinking water benefits people of all ages by preventing tooth decay. In November of 2005, the SFPUC Hetch Hetchy system completed construction of a fluoridation facility in the East Bay. The water purchased by the City from the SFPUC is fluoridated. If your zip code is 95054, you are in the area receiving fluoridated water. However, this area is also served by well water that has not been fluoridated. The map on the front page of this report that shows the area supplied with water from both the Hetch Hetchy system and the City's wells. The majority of the City will continue to receive water without added fluoride. State law requires the addition of fluoride to all water systems in California serving 10,000 customers or more. Fluoridation of the remaining water sources in the City would require installation of fluoride injecting equipment at each of the City's 27 active wells and at its treated water connection from the District. The law includes a provision for State funds to finance this fluoridation equipment. However, it may be some time before the State can provide funding to move forward with a fluoridation program for the remainder of the City.

For more information about fluoridation, log on to the California Department of Public Health website: (**www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx**).

Contaminants that occur in drinking water obtained from surface sources and underground sources:

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs, springs and wells. As water travels over 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 human activity.

Contaminants that may be present in source water include:

- Microbial (microbiological) contaminants, such as viruses and bacteria, that may come from wildlife, agriculture and/or livestock operations, sewage treatment plants and septic systems;
- Inorganic contaminants such as salts and metals, occurring naturally or resulting from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;
- Organic chemical contaminants including synthetic and volatile organic compounds. These are by-products of industrial processes, petroleum production, gas stations, urban stormwater runoff, agricultural chemical and fertilizer applications, and septic systems;
- Radioactive contaminants, which can be naturally occurring or result from oil and gas production and mining.

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water hotline at 1-800-426-4791. You may also contact the USEPA at **www.epa.gov/safewater**.

Information and guidance for people with compromised immune systems:

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/Center 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 1-800-426-4791, or on the EPA's web site **www.epa.gov/safewater/hfacts.html**.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

此份有關你的食水報告,內有重要資料和訊息,請找
他人為你翻譯及解釋清楚。

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

Q: Is there any lead contamination in the City's drinking water?

A: There has been no exceedences of the ACTION LEVEL for lead in the City of Santa Clara groundwater sources or supplies purchased from other agencies. It is possible for lead levels in your home to be higher than other homes in the community because of materials used in the original construction of your home. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Santa Clara is responsible for providing high quality drinking water, but cannot control the variety of materials used in non-municipal 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 1-800-426-4791 or at **http://www.epa.gov/safewater/lead**.

Repeat monitoring requirements not met for City of Santa Clara:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. The City tests the water weekly for the presence of coliform bacteria. On July 6, 2010 and November 2, 2010, we did not complete all monitoring or testing for coliform bacteria and, therefore, cannot be sure of the quality of our drinking water during that time. On the two dates specified above, we did not re-test all groundwater sources within 24 hours after coliform bacteria was found as present in two samples as required by Federal regulations. The lack of monitoring within the specified timeframe does not mean that contamination was present.

The City has subsequently completed all required repeat sampling and the sample results indicate no coliform contamination in the water. The City collected an additional 24 samples in December 2010 from all active groundwater sources. These samples indicated no coliform contamination existed in any groundwater source. In addition, all follow up and weekly samples indicate that no coliform contamination of the City's water exists.

*For more information, please contact Nina Hawk at 408-615-2018 or email at **nhawk@santaclaraca.gov** or at City Hall, 1500 Warburton Avenue, Santa Clara, CA 95050.*

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

Information about nitrates in groundwater resources:

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months old. 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 for advice from your health care provider.

Cryptosporidium and Giardia in water resources:

Cryptosporidiosis is a disease of the intestinal tract brought on by a parasitic microbe (a protozoan) called Cryptosporidium. The disease is transmitted through contaminated water, food or direct contact with human or animal waste. If you are healthy with a normal immune system, the flu-like symptoms usually last about two weeks. Symptoms include diarrhea, stomach cramps, upset stomach and slight fever. However, immuno-compromised people, infants, small children, and the elderly are at greater risk of developing life-threatening illness.

The water purchased by the City from the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy system has been tested for Cryptosporidium and Giardia. The source waters and treated waters are tested at least monthly and occasionally show very low levels of Cryptosporidium in the waters serving the East Bay, South Bay and San Francisco Peninsula. Giardia, another parasitic organism causing similar symptoms, is monitored with the same frequency and very low levels are occasionally detected in the same source waters.

The general public is at very low risk and there have been no reported cases of Cryptosporidiosis and Giardiasis attributed to the City's public water supply. This advisory applies to water received from the Hetch Hetchy system in the area of the City north of Highway 101. The CDPH issues guidance for people with serious immune system problems. Currently available guidance from the State and County health agencies recommends that people with such conditions consult with their doctor or primary health care provider about preventing Cryptosporidium and Giardia infection from all potential sources. Water consumers may choose to boil their drinking water at a rolling boil for at least one minute as an extra precaution.

For information about Cryptosporidiosis and Giardiasis, or copies of available guidance, contact the Santa Clara County Department of Environmental Health at 408-918-3400. You may also contact the USEPA Drinking Water Hotline at 1-800-426-4791.

FOR ADDITIONAL INFORMATION ON WATER QUALITY:

If you would like to learn more about drinking water quality, treatment and regulation, contact these home pages on the Internet:

- American Water Works Association: **www.awwa.org**
- California Department of Public Health, Division of Drinking Water and Environmental Management: **www.cdph.ca.gov/programs/Pages/DDWEM.aspx**
- United States Environmental Protection Agency: **http://water.epa.gov/drink/**
- San Francisco Public Utilities Commission, Water Quality Bureau: **sfwater.org/msc_main.cfm/MC_ID/13/MSC_ID/166**
- Santa Clara Valley Water District: **www.valleywater.org**
- Water Education Foundation: **www.watereducation.org**
- Water Quality Information Center: **www.nal.usda.gov/wqic**

CONSUMER INFORMATION

TEST	UNIT	MCL	State PHG Fed MCLG	analysis for City SC Well Water range	analysis for City SC Well Water average	analysis for SCVWaterDistrict range	analysis for SCVWaterDistrict average	analysis for HETCH HETCHY range	analysis for HETCH HETCHY average
pH	units	NS	NS	7.7-8.0	7.9	7.6-7.9	7.8	8.2-8.7	8.5
Alkalinity	PPM	NS	NS	150-260	204	67-110	83	8-98	49
Hardness	PPM	NS	NS	153-330	248	88-137	113	8-104	53
Calcium (as CaCO3)	PPM	NS	NS	39-91	70	19-27	23	2-26	12
Sodium	PPM	NS	NS	22-53	32	50-84	64	3-22	13
Magnesium	PPM	NS	NS	12-31	20	11-16	14	0.3-8.9	4.6
Potassium	PPM	NS	NS	1.2-1.4	1.3	1.9-4.3	2.9	0.34-1.2	0.6

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

ਇਹ ਸੂਚਨਾ ਮਹਤੱਵਪੂਰਣ ਹੈ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋਂ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

WATER QUALITY TABLE

	UNIT	MCL	State PHG/ Fed MCLG	analysis for City SC Well Water range	analysis for City SC Well Water average	analysis for SCVWater District range	analysis for SCVWater District average	analysis for HETCH HETCHY range	analysis for HETCH HETCHY average	Common Sources of:
PRIMARY STANDARDS:										
MICROBIOLOGICAL										
coliform bacteria	P/A/100ml	% comply	0	A	A	A	A	A	A	naturally present in environ.
fecal coliform	P/A/100ml	% comply	0	A	A	A	A	A	A	human/animal fecal waste
giardia lamblia	cyst/L	TT	0	NA	NA	NA	NA	ND-0.06	<0.06	naturally present in environ.
RADIOACTIVITY										
Gross Alpha	pCi/L	15	0	ND-4.6	<3	ND	ND	NA	NA	decay/erosion of natural deposits
INORGANIC CHEMICAL										
Aluminum	PPM	1	0.6	ND	ND	ND-.06	ND	ND	ND	natural deposits/treatment proce
Arsenic	PPB	10	0.004	ND-2.9	0.24	ND	ND	ND	ND	erosion nat'l deposit/runoff
Barium	PPM	1	2	0.08-0.19	0.119	ND	ND	ND	ND	erosion of nat'l deposit/oil drilling
Chromium	PPB	50	100	ND-5.3	1.6	ND	ND	ND	ND	erosion of nat'l deposit/plating
Copper	PPM	AL=15.0	0.3	ND-0.004	ND	ND	ND	ND	ND	erosion of nat'l deposit/leaching
Fluoride	PPM	2	1	0.08-0.16	0.12	ND-0.1	0.2	0.6-1.5	1	water additive/erosion of nat'l deposits
Nitrate (as NO3)	PPM	45	45	3.3-26	15	ND-5	2	ND	ND	runoff/leaching
VOLATILE ORGANIC CHEMICALS										
Freon113	PPM	1.2	4	ND-0.002	<DLR	ND	ND	ND	ND	metal degreasing/industrial discharge
DISINFECTION BYPRODUCTS, RESIDUALS, PRECURSORS										
Trihalomethanes	PPB	80	NA	NA	NA	45-66	55.9	14-92	40	byproduct of water chlorination
Haloacetic Acids	PPB	60	NA	NA	NA	12.3-24	16.5	7 to 55	25	byproduct of disinfection
Chlorine	PPM	4	4	0.0-2.6	0.6	1.0-2.4	1.7	1.0-2.3	1.65	water disinfection
TOC(precursor control)	PPM	TT	TT	NA	NA	1.8-2.9	2.19	2.4-3.2	2.7	various nat'l/manmade sources
PRIMARY STANDARDS AS MEASURED IN CITY OF SANTA CLARA DISTRIBUTION SYSTEM:										
Microbiological										
Coliform	%+	5.00%	0	P	<5%					naturally present in environment
Fecal Coliform	%+	0	0	0	0					human/animal fecal waste
Chlorine residual	PPM	4	4	0.0-2.5	0.6					water disinfection
Inorganic Chemical as measured at 51 Residential Taps in 2010:										
Copper	PPM	AL=1.3	0.3	90th percentile = 0.55 ppm		Number Exceeded = 0				
Lead	PPB	AL= 15	0.2	90th percentile = 3.8 ppb		Number Exceeded = 0				
Disinfection Byproducts:										
Trihalomethanes	PPB	80	NA	0-69	22					
Haloacetic Acids	PPB	60	NA	0-42	10.7					
SECONDARY STANDARDS: "CONSUMER ACCEPTANCE CONTAMINENT LEVELS"										
Color	UNITS	15	NA	ND-3	<0.1	<2.5	ND	<5-6	<5	naturally occuring
Foaming Agents	UNITS	500	NA	ND-0.062	ND	ND	ND	ND	ND	municipal/inductrial discharge
Manganese	PPB	50	NA	ND-31	3.4	ND	ND	ND	ND	leaching of natural sources
Odor	UNITS	3	NA	ND-1	<1	1	1	ND	ND	naturally occuring
Turbidity	NTU	5	NA	0.05-0.43	0.14	.07-.09	0.08	0.07-0.33	0.16	soil runoff
Tot.Dissolved Solids	PPM	1000	NA	280-470	367	240-358	305	27-174	95	leaching of natural sources
Sp. Conductance	um/cm	1600	NA	495-750	626	441-669	548	33-316	179	subst.forming ions/seawater intrusion
Chloride	PPM	500	NA	20-54	39	56-101	74	3 to 16	9.5	subst.forming ions/seawater intrusion
Sulfate	PPM	500	NA	23-62	36	58-70	64	1.6-38.7	18.2	leaching nat'l deposits/ind.waste
STATE REGULATED CONTAMINANTS with NO MAXIMUM CONTAMINANT LEVELS:										
"UNREGULATED CONTAMINANT"		NOTIFICATION LEVEL								
Boron	PPB	1000		NA	NA	130-221	173	NA	NA	see health effects language
Vanadium	PPB	50		NA	NA	ND-3	ND	NA	NA	see health effects language

DEFINITIONS and NOTES:

DEFINITIONS AND NOTES:

PRIMARY STANDARD = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

MCL = Maximum Contaminant Level = the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the State PHGs (or Fed MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

STATE PHG = State of California Public Health Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are unenforceable targets set by the California Environmental Protection Agency.

FED MCLG = FEDERAL MAXIMUM CONTAMINANT LEVEL GOAL is the level of a contaminant in drinking water below which there is no known or expected risk to public health. MCLGs are set by the U.S. Environmental Protection Agency.

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 caontaminants.

pCi/L= picocuries per liter (a measure of radioactivity)

PPM = Parts Per Million

PPB = Parts Per Billion

P = Present

A = Absent

<DLR = less than Detection Limit for Reporting

RAL = REGULATORY ACTION LEVEL = the concentration of a contaminant, if exceeded, triggers treatment or other requirements that a water system must follow

DISTRIBUTION SYSTEM = drinking water deliver system

RESIDENTIAL TAPS = household faucets used for lead and copper sampling

DISINFECTION BYPRODUCTS = chemical by products of disinfection

SECONDARY STANDARDS = secondary MCLs are set to protect the aesthetics of drinking water

FOAMING AGENTS/UNITS = methylene blue activated substance/in units

NTU = nephelometric turbidity units

um/cm = micromoles per centimeter

NA = not applicable

ND = not detected

NS = no standard

TT = TREATMENT TECHNIQUE = a required process intended to reduce the level of a contaminant in drinking water

Copper and Lead Tap Monitoring was performed in August 2010.

BORON = the babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals

VANADIUM = the babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals

HARDNESS = generally, naturally occurring magnesium and calcium.

SODIUM = refers to the salt present in the water and is generally naturally ocurring.

FECAL COLIFORM and E. COLI = are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.