

Annual Water Quality Report

2007

1. OUR WATER SUPPLY CHALLENGES

The cover photo for this year's Annual Water Quality Report was chosen to represent the challenges that water supply professionals throughout California are facing in trying to effectively balance the environmental issues within the Sacramento/San Joaquin Delta (Delta) with the need to flow water supplies through the Delta. The Tri-Valley area relies on the State Water Project's water pumping from the Delta for approximately 80% of its water supplies. Hence, how future environmental and water supply challenges in the Delta are decided have a substantial effect on all of us here in the Tri-Valley area.

The Delta's environmental issues versus water supply challenges are not new. However, they became significantly more problematic this past summer for a number of reasons. First, a federal judge decided that the operation of the State Water Project (that pumps water out of the Delta) was causing a detrimental impact on an endangered species of fish known as the Delta smelt. This required the State's Department of Water Resources (DWR) to come up with short- and long-term plans to mitigate this impact. The short-term plan to counter the impact of this issue is to cut normal deliveries from the State Water Project this year (during early 2008) by approximately 20%. Secondly, due to the Delta smelt issues, the DWR decided to shut down the State Water Project pumps for several weeks this past summer to mitigate for further reductions of Delta

smelt, resulting in local water operational issues.

The impact of the federal judge's decision regarding the endangered Delta smelt is just one piece of the State Water Project/Delta water supply puzzle. Additional litigation, such as lawsuits alleging Delta water exports' adverse impacts to salmon and steelhead, have the potential to further reduce the amount of water available from the State Water Project in the future.

Coupled with the Delta environmental issues is the uncertainty regarding how future hydrological conditions will impact water supplies during the next few years. The amount of rain and snowfall California received during the 2007 water year was the lowest state-wide since 1988. As a result, State water managers had to draw down reservoir levels this past summer to make up for these low rainfall amounts and also the DWR decision to halt pumping from the Delta for several weeks. In addition, while portions of the State appear to be receiving ample rainfall and snowpack this winter (2008), the water year is still predicted to be dry from a state hydrologic perspective.

In summary, environmental mitigation needs in the Delta and future hydrologic conditions indicate that future State Water Project supplies to the Tri-Valley area could be reduced during 2009 and 2010 by between 15% and 35%. These reductions, during the summer of 2008 and beyond, will most likely require a significant reliance and potential burden on the Tri-Valley's groundwater supplies, as well as voluntary or mandatory water conservation and water use reductions by all water users in the Tri-Valley area.

2. PLEASANTON'S WATER SOURCES

Zone 7, the Valley's water wholesaler, provides treated water to four major Valley water retailers, untreated water to a number of agricultural customers, and flood control and groundwater management in the Tri-Valley Area. About 80% of Pleasanton's water is purchased from Zone 7 and is treated surface water blended with some local groundwater. The remaining 20% comes from local groundwater pumped from wells owned and operated by the City.

Imported Surface Water:

The State Water Project (SWP) delivers water to Zone 7. The SWP water originates from the Feather River watershed, where it is stored

behind the Oroville Dam before being released into the Sacramento River/San Joaquin Delta. This water is pumped from the Delta by the State DWR to the South Bay Aqueduct System (SBA), which then flows to the Tri-Valley area, continuing through Alameda County and into Santa Clara County.

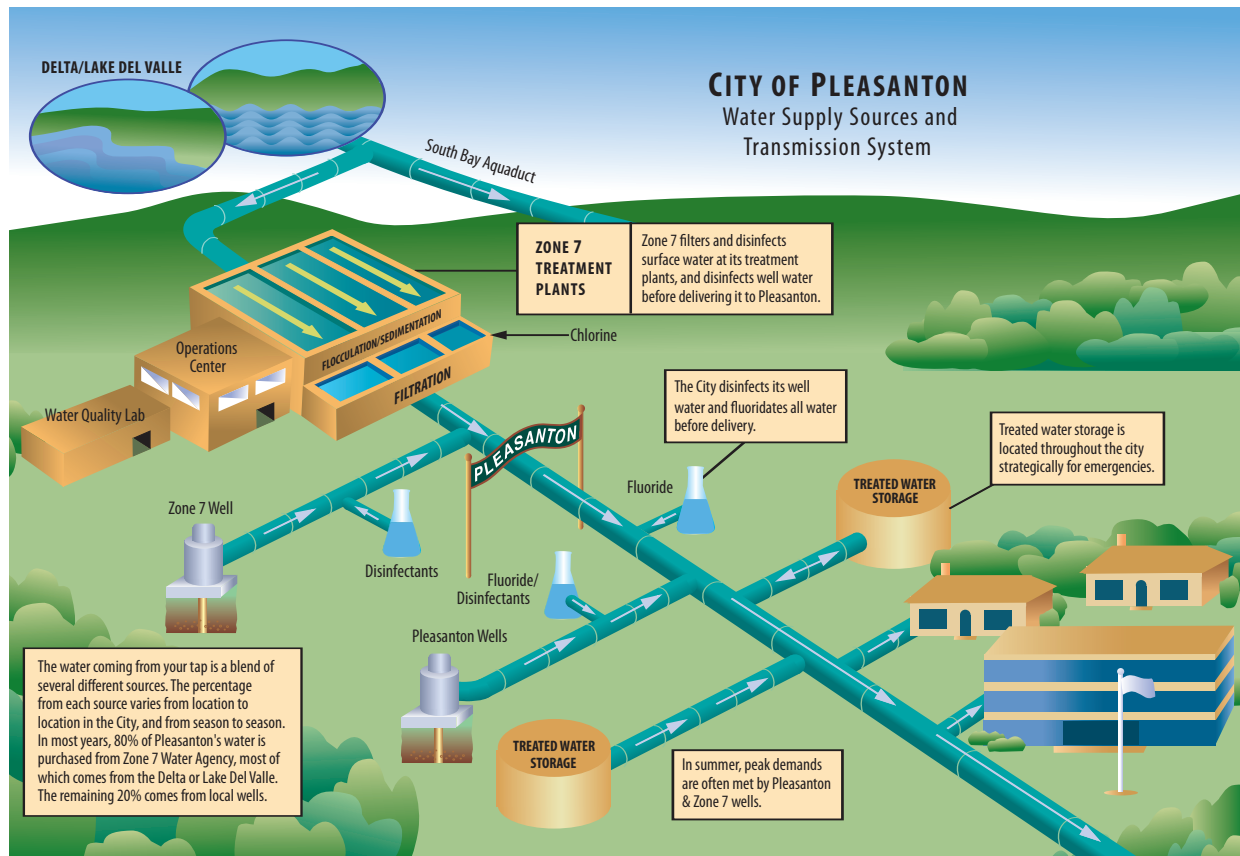
Local Surface Water:

Lake Del Valle, our local water storage lake, is owned and operated by the State (DWR) as a water supply reservoir and also provides local flood control and recreation. The water stored at Lake Del Valle comes from local rainfall and from the SWP. Zone 7 treats water from Lake Del Valle and the SBA prior to distributing this water to its retailers. Water from Zone 7's two water treatment plants (Del Valle and Patterson Pass)

undergoes several stages of treatment according to California Department of Public Health (CDPH) regulations. Following the treatment process, the water is disinfected and delivered to the City and other Valley water retailers.

Local Groundwater:

Groundwater comes from wells and springs. Both the City and Zone 7's own groundwater wells use the local groundwater to increase the volume of drinking water available, generally during the hot summer months when demand for water rises. On any given summer day, over half of the water being delivered in the City may be groundwater. As noted, City water sources are both fluoridated and disinfected before being delivered to your tap.



3. YOUR WATER MEETS ALL SAFE DRINKING WATER STANDARDS

The technical and analytical water quality information presented in this report is required by State health regulations. These regulations require water suppliers to inform customers about where their water comes from; what is in their water; and any violation of safe drinking water standards that may have occurred during this past reporting period. This report provides results of all tests required to be performed on Pleasanton's water supplies during 2007. We are happy to report that all 2007 water quality tests confirmed that water delivered to your tap met all applicable federal and state drinking water standards without any violations.



This report also includes information regarding steps taken by the City and Zone 7 to improve drinking water delivered to customers in 2007, and opportunities for the public to participate in decisions that affect their drinking water quality. Phone numbers and web page addresses of the City and other public agencies responsible for water billing, delivery, supply, and water quality are also presented herein.

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

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。

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

Included in this report:

1. Our Water Supply Challenges
2. Pleasanton's Water Sources
3. Safe Drinking Water Standards
4. Pleasanton's Water Quality
5. Chemicals & Minerals in Your Drinking Water
6. Definition of Terms
7. Understanding the Summary
8. 2007 Water Quality Results
9. Public Involvement & Contact Information

9. PUBLIC INVOLVEMENT

Zone 7, the Valley's water wholesaler, and the City of Pleasanton encourage any citizen who would like to become involved in local water issues and water quality topics to attend Zone 7's regular board meetings, which are held the third Wednesday of each month at 7:00 p.m. at the Zone 7 offices in Livermore at 100 North Canyons Parkway. These meetings are open to the public. Agendas and other pertinent information on these meetings are available on the Zone 7 web site at www.zone7water.com. For further assistance, please refer to the contact information below:

Contact Information:

Water Quality Information	925-931-5510
M-F 7:00 AM-3:30 PM	
scclough@ci.pleasanton.ca.us	
<i>Para informacion en español, llamar al telefono:</i>	925-931-5500
Utility Billing Information/Water Conservation Material & Programs	925-931-5425/ 925-931-5513
M-F 7:30 AM-5:30 PM	
Emergency Water Service	925-931-5500
M-F 7:00 AM-3:30 PM	
Or after hours and weekends, call Pleasanton Police Dispatch:	925-931-5100
Zone 7 Water Agency	925-454-5000
M-F 8:00 AM-5:00 PM	
www.zone7water.com	
Household Hazardous Waste Collection Sites	510-670-6460
M-F 8:30 AM-5:00 PM	
www.household-hazwaste.org	
EPA Save Drinking Water Hotline	1-800-426-4791
www.epa.gov/safewater/hfacts.html	
EPA's Radon Hotline	1-800-767-7236
www.epa.gov/radon	
<i>To view the Water Quality Report online, please visit</i>	
www.ci.pleasanton.ca.us/pdf/awqr07.pdf	

Keep our waterways clean:

Storm drains can carry pollutants to our waterways so do your part to keep chemicals and trash out of City streets, gutters and storm drains.



For any further questions you may have regarding the City's water supplies or quality, you can contact us by visiting the City's web site at www.ci.pleasanton.ca.us.

Printed on recycled paper using soy-based inks

4. WATER QUALITY IS OUR TOP PRIORITY

The City of Pleasanton is pleased to develop this report. It provides important information about where your water comes from and the work we perform each day to assure the water delivered to your tap is safe to drink. It also provides data about what is in your water and how water quality tests on your drinking water compare to federal and state drinking water standards during calendar year 2007.

Pleasanton's Water Quality Goal

The City's goal is to continuously provide a dependable supply of high quality drinking water to its customers. To accomplish this, the treated surface water delivered to customers is continuously monitored at Zone 7's two local water treatment plants. These plants also perform specific chemical and biological tests every four hours to check the purification process. In addition, there are 47 sampling points located throughout the City's water distribution system that are monitored and tested daily, weekly and monthly, to assure the City's drinking water continuously complies with all federal and state drinking water standards. If you have questions regarding the quality of the water supplied to you by the City, this report should provide most of the answers. We appreciate the time you take to read this report and welcome any additional question or comment you may have regarding your water supply. For further information on



Pleasanton's water quality, call the City's Water Quality Lab at 925-931-5510, or email your questions to us through the City's web page at www.ci.pleasanton.ca.us.

5. CHEMICALS & MINERALS IN WATER

The sources of most drinking water (both tap and bottled water) in this country include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the land surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances that result



from the presence of animals or human activity. Drinking water, including many bottled waters, may reasonably be expected to contain at least small amounts of some minerals or contaminants. The presence of these contaminants does not necessarily indicate that the drinking water poses a health risk, especially

at low levels. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline (800-426-4791). The disinfectant, Chloramine (a combination of chlorine and ammonia), is used to disinfect both Zone 7 and the City's water. This

disinfectant is utilized to protect public health by destroying disease-causing organisms that may be present in water supplies. Chloramines, at the low levels used, will not cause any health problems for the general public. However, aquarium owners and home dialysis patients must take special precautions before chloraminated water can be used in aquariums or home kidney dialysis machines, due to the very small amount of ammonia present in the water.

Important Health

Information

Some people may be more vulnerable to contaminants in drinking water than the general population. These include immuno-compromised people such as

persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants. These people may be at additional risk from infections and should seek advice about their drinking water from their physicians. The USEPA/ Centers for Disease Control (CDC) guide-

lines on appropriate ways to reduce the risk of infection by Cryptosporidium and other microscopic contaminants are available from the United States Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline — 800-426-4791.



6. DEFINITION OF TERMS

The following terms are used in the water industry to define contaminant levels. Pleasanton's drinking water is tested at the levels in the table to the right.

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

Maximum Contaminant Level Goal (MCLG): The level of water of a contaminant in drinking water below which there is no known or expected risk to health—set by the USEPA.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant that is allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant in drinking water below which there is no known or expected risk to health.

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 EPA.

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

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

Regulatory Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Turbidity: A measure of the cloudiness of the water. We monitor turbidity since it is a good indicator of the effectiveness of the treatment plant's filtration system.

The following contaminants may also be found in drinking water:

TTHMS (Total Trihalomethanes): TTHMs are by-products of drinking water disinfected with chlorine compounds. Some people who use water containing TTHMs 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. Pleasanton's water sources are below the MCLs for TTHMs.

MTBE (Methyl Tertiary Butyl Ether): Pleasanton's well water sources were monitored once for MTBE in 2005, and it was not detected (next monitoring in 2008). Zone 7's sources were monitored twice in 2007. The current detection limit for reporting purposes is 3 parts per billion (ppb). MTBE was not detected in any of Zone 7's sources in the past year.

Radon: A radioactive gas found throughout the United States that you cannot see, taste, or smell. Currently, there is no federal regulation on radon levels in drinking water. The California Department of Public Health is awaiting action by the USEPA on a proposed radon level in drinking water. For additional information, call your State Radon Program at 916-324-2208 or call EPA's Radon Hotline at 800-767-7236. Radon was found in the City and Zone 7's groundwater wells at levels of 160 to 350 pico Curies per liter (pCi/L).

Key to Tables

AL	Action Level
MCL/MCLG	Maximum Contaminant Level/Maximum Contaminant Level Goal
DLR	Detection Limit for Purpose of Reporting (CDPH established)
SMCL	Secondary Maximum Contaminant Level
MRDL/MRDLG	Max. Residual Disinfectant Level/Max. Residual Disinfection Level Goal
MRL	Minimum Reporting Limit
PHG	Public Health Goal
pCi/L	Picocuries Per Liter
mg/L	Miligrams Per Liter or Parts Per million
µg/L	Micrograms per liter or parts per billion
NA	Not Applicable
NL	Notification Level
ND	Monitored for but not detected at or above DLR or MRL. ND or value in the range column indicates that more than one analysis performed
TT	Treatment Technique
NTU	Nephelometric Turbidity Units
umhos/cm	A measure of specific conductance

7. UNDERSTANDING THE SUMMARY

There are two types of standards that are regulated in drinking water: **Primary Standards** are set after considerable research and data have been analyzed by health experts. These standards, called **Maximum Contaminant Levels (MCLs)** are set by USEPA and strictly enforced by the California Department of Public Health (CDPH).

Secondary Standards are based upon qualities of water such as taste, odor, color or clarity of the water. These standards set limits on substances that may influence customer acceptance of the water and are established by the CDPH.

Detected Contaminants: The table at right shows the level of each detected regulated contaminant, the average level of each detected contaminant (Average), and, if more than one sample was collected, the range of levels found during the 2007 calendar year (Range).

In addition to the regulated contaminants, Zone 7 and the City monitor a large number of additional "unregulated contaminants". Unregulated contaminant monitoring helps EPA and CDPH to determine where certain contaminants occur and whether the contaminants need to be regulated in the future. The unregulated organic compounds are monitored on the same schedule as the regulated contaminants. All the additional unregulated organic compounds the City tested for during 2007 were not detected (ND).

Sources of Contaminants: In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The limits for contaminants in bottled water provide the same level of protection.

Contaminants that may be present in source water include the following: microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, 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.

Pesticides and herbicides 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, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.

Sampling Frequency: Pleasanton sampling frequency meets, and for some parameters, is more frequent than CDPH requirements. CDPH allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Hence, some of our data, though representative, may have been sampled prior to 2007.

A Drinking Water Source Assessment and Protection Program (DWSAP) was conducted for the City of Pleasanton Wells #5, #6 and #8 in December 2002. No contaminants have been detected in the City's groundwater supply. However, all groundwater sources are considered vulnerable to activities located near the drinking water supply source. DWSAP is updated whenever new water sources are added. A completed copy of the assessment may be viewed at the City Clerk Office, 123 Main Street, Pleasanton.

8. 2007 WATER QUALITY RESULTS

The following is a list of contaminants that may be found in drinking water and their sources. Also included in the table below is a summary of all chemical analyses required by the USEPA and CDPH for Pleasanton's water supply during calendar year 2007.³

PRIMARY STANDARDS—Mandatory Health-Related Standards, established by the State of California Department of Public Health Distribution System Sampling Results										
Contaminant	MCL	PHG MCLG* MRDLG**	Zone 7 Water Agency ¹				City of Pleasanton ²			Sources
			Highest Quarterly Average	Range of Individual Samples	Highest Quarterly Average	Range of Individual Samples	Highest Quarterly Average	Range of Individual Samples		
Total Trihalomethanes (TTHMs) (µg/L)	80	NA	39	26–54	46	ND–51	By-product of drinking water chlorination			
Haloacetic Acids (HAA5) (µg/L)	60	NA	18	10–20	21	0.7–22	By-product of drinking water chlorination			
Total Coliform Bacteria	More than 5% of monthly samples are positive	0*	0%				1.3%			Naturally present in the environment
Chloramines as Chlorine (mg/L)	Maximum Residual Disinfectant Level (MRDL)=4.0	4**	Running Annual Average (RAA) 2.3	Range of Monthly Avg. Chloramines 2.2–2.4	Running Annual Average (RAA) 1.7	Range of Monthly Avg. Chloramines 1.3–1.9	Drinking water disinfectant added for treatment			
EPA/State Lead Copper Rule—Monitored at Customers Tap—2007⁴						No. Collected	90th Percentile	No. of Samples > Action Level		
Lead (µg/L)	AL=15	2			44	ND	0	Internal corrosion of household plumbing		
Copper (mg/L)	AL=1.3	0.17			44	0.08	0	Internal corrosion of household plumbing		
Water Supply Sources										
Contaminant	MCL	PHG MCLG*	Treated Surface Water		Groundwater		Groundwater		Sources	
			Average	Range of Individual Samples	Average	Range of Individual Samples	Average	Range of Individual Samples		
Turbidity	TT=1 NTU Maximum	NA	Highest Level Found=0.25NTU		0.11	0.05–0.32	0.14	0.10–0.22	Soil runoff	
	TT=95% of Samples ≤ 0.3 NTU	NA	% of Samples ≤ 0.3 NTU=100		Not Applicable		Not Applicable			
Total Organic Carbon (mg/L)	TT=Quarterly RAA Removal Ratio ≥ 1.0	NA	Lowest Quarterly RAA Ratio=1.45		Not Applicable		Not Applicable		Runoff/leaching from natural deposits	
Inorganic Chemicals			Average	Range	Average	Range	Average	Range		
Arsenic (µg/L)	10	4	ND	ND	ND	ND–2	ND	ND	Erosion of natural deposits	
Barium (µg/L)	1000	2000	ND	ND	193	100–310	217	180–270	Erosion of natural deposits	
Chromium (µg/L)	50	100*	ND	ND	ND	ND–10	ND	ND	Erosion of natural deposits	
Selenium (µg/L)	50	50*	ND	ND	ND	ND–7	ND	ND	Erosion of natural deposits	
Fluoride (mg/L) (Naturally Occuring) ⁷	2	1	0.1	0.1	0.1	0.1	0.1	0.1	Erosion of natural deposits	
Nitrate (as NO3) (mg/L)	45	45	2.3	ND–4.3	16	10–32	14	7–22	Erosion of natural deposits	
Nitrate + Nitrite as N (mg/L)	10	NA	NA	NA	NA	NA	3	2–3	Erosion of natural deposits	
Radionuclides⁵										
Gross Alpha (pCi/L)	15	0*	ND	ND	ND	ND–3	ND	ND	Erosion of natural deposits	
Gross Beta (pCi/L)	50	0*	ND	ND	ND	ND–12	ND	ND	Decay of natural deposits and manmade	
Uranium (pCi/L) (tested in 2004 and 2006)	20	0.43	ND	ND	ND	ND–3	ND	ND	Erosion of natural deposits	
Regulated Contaminants with Secondary MCLs, established by the State of California Department of Public Health										
Conductivity (µmhos/cm)	1600	--	512	323–696	776	560–1020	550	730–880	Substances that form ions in water	
Chloride (mg/L)	500	--	93	45–154	69	43–122	70	66–76	Naturally occurring organic materials	
Sulfate (mg/L)	500	--	28	14–47	53	31–94	54	51–56	Runoff/leaching from natural deposits	
Total Dissolved Solids (mg/L)	1000	--	283	161–379	485	368–646	467	430–520	Runoff/leaching from natural deposits	
Unregulated Contaminants Requiring Monitoring, established by the State of California Department of Public Health										
Boron (µg/L)	NL=1000	--	120	ND–230	413	280–920	340	330–360	Runoff/leaching from natural deposits	
Vanadium (µg/L)	NL=50	--	ND	ND	ND	ND–4	3	ND–4	Erosion of natural deposits	
Additional Parameters, included to assist consumers in making health or economic decisions, i.e. low sodium diet, water softening, etc.										
Corrosivity (Units) ⁶	--	--	12	11.5–12.3	12.2	11.9–12.5	12.5	12.4–12.6	Runoff/leaching from natural deposits	
Alkalinity (as CaCO3)(mg/L)	--	--	77	60–122	272	214–343	250	220–290	Runoff/leaching from natural deposits	
Hardness (as CaCO3)(mg/L)	--	--	93	61–137	314	226–426	366	307–442	Runoff/leaching from natural deposits	
Calcium (mg/L)	--	--	20	13–27	61	44–81	85	81–100	Runoff/leaching from natural deposits	
Magnesium (mg/L)	--	--	11	6–17	39	28–54	38	30–47	Runoff/leaching from natural deposits	
Potassium (mg/L)	--	--	2.8	1.9–3.9	1.9	1.1–2.7	1.8	1.7–2.0	Runoff/leaching from natural deposits	
Sodium (mg/L)	--	--	68	36–99	63	42–83	40	36–46	Runoff/leaching from natural deposits	
pH (Units)	--	--	8.4	8.2–8.8	7.4	7.2–7.7	7.8	7.8	Runoff/leaching from natural deposits	
Silica (mg/L)	--	--	12	6–15	25	20–28	24	21–25	Runoff/leaching from natural deposits	
Total Radon (pCi/L) ⁵	--	--	NA	NA	267	160–320	276	205–350	Runoff/leaching from natural deposits	

¹Zone 7 Water Agency supplies surface and groundwater to the City of Pleasanton. For more information regarding this source, call 925-447-0533. ²The City of Pleasanton owns and operates three groundwater wells for drinking water purposes. For more information on this source, please call 925-931-5510. ³Pleasanton and Zone 7 also test for a number of additional constituents in the water supply sources. Test results for all of these constituents were non-detected and therefore not included in the table. A complete list of all constituents tested during 2007 is available upon request. ⁴Tested every 3 years; next scheduled testing in 2010. ⁵Tested every 4 years; next scheduled testing for Zone 7 in 2008, for Pleasanton in 2010. ⁶Zone 7 strives to supply non-aggressive water (corrosivity > 12) by pH adjustment on surface treated water. ⁷The City treats the water delivered to your tap by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.7 to 1.3 ppm, as required by CDPH regulations.