

Water Quality Report 2012



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

2012 Water Quality Report

For more than 55 years, the Vallecitos Water District (Vallecitos) has taken pride in the water it delivers to its now more than 94,000 residents. As a result of its commitment to excellence, Vallecitos is proud to provide the 2012 water quality test results for drinking water delivered to its customers.

After more than 200 types of tests conducted by its wholesalers – the Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (SDCWA) – and additional tests performed by Vallecitos, it has been concluded that your water either met or exceeded all local, state,

and federal potable drinking water standards. Along with these tests, your drinking water went through a treatment process that included filtering and disinfecting to ensure acceptable quality. Results of our own testing and that of our wholesalers' monitoring are found in the tables of this report.

This publication is a summary of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards.

Origins of Your Drinking Water

Vallecitos customers receive 100 percent imported water from SDCWA, which is purchased from MWD. Water is mainly imported from:



Sacramento-San Joaquin Delta via the 444-mile California Aqueduct



Colorado River via the 242-mile Colorado River Aqueduct

During its journey, your water remains safe due to increased security at key facilities, increased water sampling, and aerial and ground patrols. Protecting your water doesn't end with the thousands of tests performed throughout the year. Vallecitos also supports regulatory changes in public policy to improve water quality.

The end result is more than 5 billion gallons of an exceptional product delivered annually through 19 operational storage reservoirs and 350 miles of pipeline to a 45-square-mile area that includes San Marcos; Lake San Marcos; portions of Escondido, Carlsbad, and Vista; and other unincorporated areas in San Diego County.

The Water We Drink

The U.S. Congress has directed the U.S. Environmental Protection Agency (USEPA) to require water systems to report the quality of the drinking water they serve annually. Vallecitos supports this regulation and has provided Water Quality Reports and other water quality data to all of its customers for many years.

Did you know...?

The Vallecitos Water District has a consistent record of either meeting or exceeding all federal and state drinking water regulations.

The Reason for Contaminants



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 (800) 426-4791.



In order to ensure that tap water is safe to drink, the USEPA and the California Department of Public Health 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. Vallecitos and its water wholesalers treat the water according to these regulations.

The sources of drinking water (both bottled and tap water) include rivers, lakes, streams, reservoirs, ponds, 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 human activity.

Contaminants possibly present in source water before treatment include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, 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 that are by-products of industrial processes and petroleum production and can come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or the result of oil and gas production and mining activities.

Health Advisories Regarding Your Water

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, persons 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 guidelines on the appropriate means to lessen the risk of infection by *Cryptosporidium* or other microbial contaminants are available from the **Safe Drinking Water Hotline (800) 426-4791**.

The tables below list all the drinking water contaminants tested for during the 2012 calendar year. Thousands of water quality tests were performed on your drinking water last year. Many more parameters were tested for and not found. The results in this report show that your water met, and in most cases exceeded, all of the stringent state (California Department of Public Health) and federal (U.S. Environmental Protection Agency) water quality standards relating to public health and aesthetics, such as taste, odor and color. Unless otherwise noted, the data in the following tables reflect testing from January 1, 2012, through December 31, 2012. The monitoring of certain contaminants is not required annually since they are not expected to vary significantly from year to year. Therefore, though representative of the water quality, some of the data may be more than one year old.

Summary of Vallecitos Water District's 2012 Water Quality Analysis

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	Range Average	Treatment Plant Effluents			Major Sources in Drinking Water
					Twin Oaks Treatment Plant	Skinner Treatment Plant	Weese Treatment Plant	
Percent State Project Water	%	NA	NA	Range Average	NR NR	33 - 84 63	NR NR	NA
PRIMARY STANDARDS - Mandatory Health-Related Standards - Data provided by the San Diego County Water Authority (Twin Oaks Treatment Plant), the Metropolitan Water District (Skinner Treatment Plant) and the City of Oceanside (Weese Treatment Plant).								
CLARITY								
Combined Filter Effluent Turbidity	NTU %	TT TT (a)	NA	Range/Average % < 0.3	0.02 - 0.04 100%	0.06 100%	0.23 100%	Soil runoff
MICROBIOLOGICAL								
Total Coliform Bacteria (b)	%	5.0	(0)	Range Average	ND ND	ND - 0.5 0.1	ND - 0.7 ND	Naturally present in the environment
E. coli (c)	(c)	(c)	(0)	Range Average	ND ND	ND ND	NR NR	Human and animal fecal waste
Heterotrophic Plate Count (HPC) (d)	CFU/mL	TT	NA	Range Average	TT TT	ND - 1 ND	ND - 43 1	Naturally present in the environment
INORGANIC CHEMICALS								
Arsenic	ppb	10	0.004	Range Average	Single Sample 3.0	ND ND	NR NR	Natural deposits erosion; runoff from orchards; glass and electronics production wastes
Barium	ppb	1,000	2,000	Range Average	Single Sample 53	ND ND	NR NR	Oil and metal refineries discharges; natural deposits erosion
Fluoride (f) Treatment-related	ppm	2	1	Optimal Fluoride Control Range Range Average	0.7 - 1.3 0.2 - 0.9 0.7	0.7 - 1.3 0.7 - 0.9 0.8	Not Added 0.1 - 0.2 0.2	Erosion of natural deposits; water additive for dental health; discharge from fertilizer and aluminum factories
Nitrate (as N) (g)	ppm	10	10	Range Average	0.3 - 0.5 0.4	ND ND	ND ND	Runoff and leaching from fertilizer use; sewage; natural deposits erosion
RADIOLOGICALS								
Gross Alpha Particle Activity	pCi/L	15	(0)	Range Average	ND ND	ND - 3 ND	ND ND	Erosion of natural deposits
Gross Beta Particle Activity (l)	pCi/L	50	(0)	Range Average	3.4 - 3.5 3.4	ND - 5 ND	ND ND	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	Range Average	1.0 - 1.7 1.3	ND - 2 1	1.8 - 2.9 2.1	Erosion of natural deposits
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS								
Total Trihalomethanes (TTHM) (h)	ppb	80	NA	Range Average	28 - 75 43	10 - 19 14	14 - 46 39	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) (i)	ppb	60	NA	Range Average	ND - 5.3 3.7	1.4 - 6.1 2.7	3 - 14 10	By-product of drinking water chlorination
Total Chlorine Residual	ppm	[4.0]	[4.0]	Range Highest RAA	NR NR	1.5 - 2.8 2.3	0.1 - 3.6 2.5	Drinking water disinfectant added for treatment
Bromate (j)	ppb	10	0.1	Range Highest RAA	1.6 - 9.1 3.5	1.2 - 11 6.5	NR NR	By-product of drinking water ozonation
DBP Precursors Control (TOC)	ppm	TT	NA	Range Average	2.0 - 3.3 2.4	1.8 - 2.3 2.1	NR NR	Various natural and man-made sources

This analysis report lists only the detected parameters which are required by law to be published. However, more than 167 parameters were monitored. If you would like a copy of the full reports, including the non-detected contaminants, call the District's Public Information Office at (760) 744-0460 or the reports can be viewed on our website at www.vwd.org.

Summary of Vallecitos Water District's 2012 Water Quality Analysis - Continued

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	Range Average	Treatment Plant Effluents			Major Sources in Drinking Water
					Twin Oaks Treatment Plant	Skinner Treatment Plant	Weese Treatment Plant	
SECONDARY STANDARDS - Aesthetic Standards - Data provided by the San Diego County Water Authority, the Metropolitan Water District and the City of Oceanside.								
Aluminum (e)	ppb	200	600	Range Average	ND - 44 30	ND ND	62 - 230 149	Residue from water treatment process; natural deposits erosion
Chloride	ppm	500	NA	Range Average	Single Sample 78	75 - 77 76	58 - 84 70	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	Range Average	ND ND	1 1	ND ND	Naturally occurring organic materials
Manganese	ppb	50	NL = 500	Range Average	ND - 4.5 ND	ND ND	NR NR	Leaching from natural deposits
Odor Threshold (k)	TON	3	NA	Range Average	Single Sample 1	1 - 2 2	ND ND	Naturally occurring organic materials
Silver	ppb	100	NA	Range Average	Single Sample 9	ND ND	NR NR	Industrial discharges
Specific Conductance	µS/cm	1,600	NA	Range Average	Single Sample 640	440 - 780 640	NR NR	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	Range Average	Single Sample 96	96 - 120 110	58 - 158 112	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1,000	NA	Range Average	Single Sample 370	360 - 400 380	283 - 457 364	Runoff/leaching from natural deposits
Turbidity (a)	NTU	5	NA	Range Average	0.02 - 0.04 0.04	ND - 0.1 ND	0.05 - 0.3 0.6	Soil runoff

ABBREVIATIONS AND DEFINITIONS

A - Absent	NR - Not Reported
CFU/mL - Colony-Forming Units per milliliter	ND - Not Detected
DBP - Disinfection By-Products	NTU - Nephelometric Turbidity Units
MCL - Maximum Contaminant Level - 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.	pCi/L - picoCuries per liter
MCLG - Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.	PHG - Public Health Goal - 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.
MPN - Most Probable Number	ppb - parts per billion or micrograms per liter (µg/L)
MRDL - Maximum Residual Disinfectant Level - 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.	ppm - parts per million or milligrams per liter (mg/L)
MRDLG - Maximum Residual Disinfectant Level Goal - 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.	RAA - Running Annual Average
N - Nitrogen	SI - Saturation Index (Langelier)
NA - Not Applicable	TOC - Total Organic Carbon
NL - Notification Level - The level at which notification of the public water system's governing body is required.	TT - Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.
	µS/cm - microSiemen per centimeter; also equivalent to µmho/cm (micromho per centimeter)
	Primary Standards (Primary Drinking Water Standards) - MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and drinking water treatment requirements.
	Secondary Standards - Requirements that ensure the appearance, taste and smell of drinking water are acceptable.

FOOTNOTES

- (a) - The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The monthly averages and ranges of turbidity shown in the Secondary Standards section were based on the treatment plant effluents.
- (b) - Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. The MCL was not violated.
- (c) - *E. coli* MCLs: The occurrence of 2 consecutive total coliform-positive samples, one of which contains fecal coliform/*E. coli*, constitutes an acute MCL violation. The MCL was not violated.
- (d) - All distribution samples collected had detectable total chlorine residuals and no HPC was required. HPC reporting level is 1 CFU/mL.
- (e) - Aluminum, copper, MTBE and thiobencarb have both primary and secondary standards.
- (f) - MWD and SDCWA were in compliance with all provisions of the State's Fluoridation System Requirements.
- (g) - State MCL is 45 mg/L as nitrate, which equals 10 mg/L as N.
- (h) - Reporting level is 0.5 ppb for each of the following: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.
- (i) - Reporting level is 1.0 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2.0 ppb for monochloroacetic acid.
- (j) - Reporting level is 3.0 ppb for Bromate.
- (k) - Metropolitan utilizes a flavor-profile analysis method that can detect odor occurrences more accurately. Call MWD at (213) 217-6850 for more information.
- (l) - CDPH considers 50 pCi/L to be the level of concern for beta particles; the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ.

Summary of Vallecitos Water District's 2012 Water Quality Analysis - Continued

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	Range Average	Within VWD's System	Major Sources in Drinking Water
Summary of Water Quality Tests Within VWD's Distribution System - Data Provided by Vallecitos Water District						
Total Coliform Bacteria (a)	%	5.0 (a)	(0)	Range	ND - 0.75%	Naturally present in the environment
				Average	0.07%	
Fecal Coliform & E. coli (b)	(b)	(b)	(0)	Range	ND	Human and animal fecal waste
				Average	ND	
Total Trihalomethanes (TTHM) (c)	ppb	80	NA	Range	17 - 49	By-product of drinking water chlorination
				Average	33.6	
Haloacetic Acids (five) (HAA5) (d)	ppb	60	NA	Range	7.3 - 24	By-product of drinking water chlorination
				Average	12	
General Physical Sampling (e)	(e)	(e)	(e)	Secondary Standards (aesthetics) testing required by CDPH within VWD's Distribution System		
MONITORED AT CUSTOMERS' TAP						
Copper (f)	ppb	AL = 1,300	300	90th Percentile	310	House pipes internal corrosion; erosion of natural deposits; leaching from wood preservatives
Lead* (f)	ppb	AL = 15	0.2	90th Percentile	1.3	House pipes internal corrosion; erosion of natural deposits; discharges from industrial manufacturers

ABBREVIATIONS AND DEFINITIONS

MCL - Maximum Contaminant Level - 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.

MCLG - Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDL - Maximum Residual Disinfectant Level - 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.

MRDLG - Maximum Residual Disinfectant Level Goal - 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.

PHG - Public Health Goal - 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.

ppb - parts per billion or micrograms per liter (µg/L)

ppm - parts per million or milligrams per liter (mg/L)

TTHM - Total Trihalomethanes

HAA5 - Haloacetic Acids (five)

AL - Action Level

FOOTNOTES

- (a) - The District tested more samples than required by the CDPH. 1,367 samples were analyzed in 2012. One sample tested positive for total coliforms. The positive sample was determined to be from a contaminated sample station. The District was in compliance with the Total Coliform MCL for 2012.
- (b) - The District tested more samples than required by the CDPH. 1,367 samples were analyzed in 2012 and all samples tested negative for Fecal/E. coli bacteria. The District was in compliance with the Fecal/E. coli MCL for 2012.
- (c) - The MCL for Total Trihalomethanes (TTHM) is determined by using a running annual average of the last four quarterly tests. The District was in compliance with the regulations concerning Total Trihalomethanes (TTHM) for 2012.
- (d) - The MCL for Haloacetic Acids (HAA5) is determined by using a running annual average of the last four quarterly tests. The District was in compliance with the regulations concerning Haloacetic Acids (HAA5) for 2012.
- (e) - These samples were tested for turbidity, odor, and color. The District was in compliance with the Secondary Standards for these tests in 2012.
- (f) - The federal and state standards for Lead and Copper are treatment techniques requiring agencies to optimize corrosion control treatment. The District is required to take 30 samples every three years. The data shown is from 33 samples taken during the 2012 period. Our next sample period is scheduled for June, 2015. The District was in compliance with the "Lead and Copper Rule" in 2012.

*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. Vallecitos 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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 or at <http://www.epa.gov/safewater/lead>.

Summary of Vallecitos Water District's 2012 Water Quality Analysis - Continued
Other Detected Constituents That May be of Interest to Consumers

Parameter	Units	State or Federal MCL	PHG (MCLG) [MRDLG]	Range Average	Treatment Plant Effluents			Major Sources in Drinking Water
					Twin Oaks Plant	Skinner Plant	Weese Plant	
Alkalinity	ppm	NA	NA	Range	Single Sample	75 - 110	79 - 106	
				Average	92	93	93	
Boron	ppb	NL = 1,000	NA	Range	Single Sample	130	140	Runoff/leaching from natural deposits; industrial wastes
				Average	140	130	140	
Calcium	ppm	NA	NA	Range	Single Sample	34 - 41	24 - 56	
				Average	37	38	40	
Chlorate	ppb	NL = 800	NA	Range	190 - 280	ND - 80	NR	By-product of drinking water chlorination; industrial processes
				Average	218	50	NR	
Chromium VI (a)	ppb	NA	0.02	Range	0.04 - 0.19	ND	NR	Industrial waste discharge; could be naturally present as well
				Average	0.07	ND	NR	
Corrosivity (b) (Aggressiveness Index)	AI	NA	NA	Range	Single Sample	12.2 - 12.3	NR	Elemental balance in water; affected by temperature, other factors
				Average	12	12.2	NR	
Corrosivity (c) (Saturation Index)	SI	NA	NA	Range	Single Sample	0.35 - 0.50	NR	Elemental balance in water; affected by temperature, other factors
				Average	0.24	0.42	NR	
Hardness	ppm	NA	NA	Range	Single Sample	120 - 220	105 - 152	The sum of naturally occurring poly-valent cations present in the water
				Average	160	170	137	
Magnesium	ppm	NA	NA	Range	Single Sample	15 - 17	11 - 22	
				Average	16	16	16	
N-Nitrosodimethylamine (NDMA)	ppt	NL = 10	3	Range	Single Sample	ND - 0.004	ND	By-product of drinking water chloramination; industrial processes
				Average	2.7	ND	ND	
pH	pH Units	NA	NA	Range	Single Sample	8.1 - 8.5	7.6 - 8.5	
				Average	7.8	8.3	8.2	
Potassium	ppm	NA	NA	Range	Single Sample	3.4 - 3.6	NR	
				Average	3.5	3.5	NR	
Sodium	ppm	NA	NA	Range	Single Sample	65 - 66	NR	The salt present in the water, generally naturally occurring
				Average	68	66	NR	

ABBREVIATIONS, DEFINITIONS AND FOOTNOTES

Abbreviations and Definitions-(Please refer to main table for other abbreviations and definitions)

NR - Not Reported

NL - Notification Level - The level at which notification of the public water system's governing body is required.

ppt - parts per trillion or nanograms per liter (ng/L).

Footnotes:

(a) - Reporting level is 0.03 ppb for Chromium VI.

(b) - AI <10.0 = Highly aggressive and very corrosive water

AI ≥ 12.0 = Non-aggressive water

AI (10.0 - 11.9) = Moderately aggressive water

(c) - Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes

Negative SI index = corrosive; tendency to dissolve calcium carbonate

Parts per million (ppm) =
One drop in a 10-gallon aquarium



Parts per billion (ppb) =
One drop in a residential swimming pool

FOR MORE INFORMATION: This report is only a summary of the water quality activities during the past year. If you have any questions about your water quality or Vallecitos Water District, please visit our website at www.vwd.org or call (760) 744-0460 during business hours (Monday through Friday, 8 a.m. to 5 p.m.). The District's headquarters is located at 201 Vallecitos de Oro, San Marcos, CA 92069. Questions specific to water quality can be directed to Ed Pedrazzi, Vallecitos Water Operations Supervisor, at (760) 744-0460, ext. 253. For additional information, contact:

* **U.S. Environmental Protection Agency** - (800) 426-4791 - www.epa.gov/safewater

* **National Center for Disease Control** - (404) 639-3311 - www.cdc.gov

* **California Department of Public Health**- Division of Drinking Water & Environmental Management (619) 525-4159 - www.cdph.ca.gov/Programs/Pages/DWP.aspx

* **Metropolitan Water District of Southern California** - (213) 217-6000 - www.mwd.dst.ca.us



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- Special Edition - 2012 Water Quality Report



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All are welcome to attend the Vallecitos Board Meetings held the first and third Wednesdays of each month at 4:00 pm in the Administration building — 201 Vallecitos de Oro in San Marcos.

Improved treatment techniques ensure superior product and value



Vallecitos and its wholesalers conducted thousands of tests last year to ensure superior drinking water quality.

Modern treatment techniques have improved water supplies to the point where people often take the safety of tap water for granted.

A century ago, however, many people did have to worry about their water. That was when filtration and chlorination systems were first installed in municipal water systems. That seemingly basic service made a profound difference: U.S. life expectancy increased and child mortality decreased. Once-common diseases such as cholera and typhoid have been essentially wiped out.

Continuous advances in technology have allowed water agencies to adopt increasingly sophisticated ways of preventing harmful levels of bacteria and chemicals from fouling water supplies.

Federal and state agencies oversee the testing process, periodically setting more stringent safeguards. Over the past 30 years, the number of regulated contaminants in potable water has nearly quadrupled. And contaminant levels that once were measured in parts per million are now traced to parts per billion – giving consumers an even greater margin of safety.

The entire process has delivered a major public health benefit and a real value considering that Vallecitos tap water still costs less than a penny a gallon.