

Your Water Agency's Source of Supply

For the Valley Center Municipal Water District, your retail water supplier, the sole source of water for our 25,394 customers is the Metropolitan Water District of Southern California (Metropolitan) through the aqueduct facilities owned and operated by the San Diego County Water Authority.

Metropolitan imports water into Southern California from two sources: a 242-mile-long aqueduct that brings Colorado River water from Lake Havasu and a 444-mile-long aqueduct that carries water from the Sacramento-San Joaquin Delta. Water from these sources travels to the Metropolitan system through pressurized large diameter pipes, open aqueduct canals and open reservoirs. The supply is then treated at the Robert F. Skinner Filtration Plant located in Western Riverside County.

In December 2002, Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. Additional information regarding this topic may be obtained at www.mwdh2o.com.

After treatment at the Skinner Filtration Plant, the water flows into five aqueduct pipelines and is delivered to the Valley Center Municipal Water District. Once in the Valley Center system, which includes 340 miles of water mains, 43 reservoirs, and 28 pumping stations; the water supply remains in pressurized pipelines and covered reservoirs, further protecting its quality.

Valley Center Municipal Water District's Water Sources



VALLEY CENTER MUNICIPAL WATER DISTRICT

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VALLEY CENTER MUNICIPAL WATER DISTRICT

2015 WATER QUALITY REPORT



*Consumer Confidence
Report*

*Annual Report on
Water Quality for 2015*

Valley Center Municipal Water District 2015 Water Quality Report

Este informe contiene información muy importante sobre su agua. Tradúzcalo ó hable con alguien que lo entienda bien.

Valley Center Municipal Water District is committed to supplying safe water that meets or surpasses state and federal safety standards and achieves the highest standards of customer satisfaction. *The U.S. Environmental Protection Agency (EPA) and the California State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems and require the publication and distribution of this report to our customers and the community we serve.*

We are pleased to report that the quality of water delivered by the Valley Center Municipal Water District meets or exceeds all State and Federal standards. *Your tap water is safe to drink.*

This report is a snapshot of the water quality of the Valley Center M.W.D.'s water deliveries in calendar year 2015. Included are details about where the water comes from, what it contains, and how it compares to the SWRCB standards. If you are interested in more information about your water supply or water supplier, please feel free to contact our administrative offices at 760-735-4500, reach us on our website: www.valleycenterwater.org (which includes links to Metropolitan and the San Diego County Water Authority) or attend one of our Board meetings on the 1st and 3rd Mondays of each month, at 2:00 p.m. Meetings are held at the District Offices, 29300 Valley Center Rd., Valley Center, and are open to the public.

For specific questions or information about water quality, please contact our Field Operations Department and ask for Thad Klimas or Greg Hoyle.

Water Quality Information

Generally, the sources of drinking water (both tap 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 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- 💧 **Lead**, if present and at 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. The Valley Center Municipal Water District 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 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>.
- 💧 **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 chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- 💧 **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Are there any precautions the public should consider?

As previously stated, the water supplied by the Valley Center Municipal Water District meets or exceeds all State and Federal safety standards and is safe to drink. However, all 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. In order

to ensure that tap water is safe to drink, EPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. *More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791) or by viewing the USEPA's website at www.epa.gov/safewater.*

SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than the general population. *Immunocompromised 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. *EPA/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 (1-800-426-4791).*

What is your water supplier doing to keep the tap water safe?

Under the guidance of the SWRCB, the Valley Center Municipal Water District regularly conducts over 400 tests from 21 strategically positioned sample points to guarantee a *safe level of disinfectant residual* and the *bacteriological safety* of your water supply. We also monitor our supply for the levels of *Trihalomethanes* and *Haloacetic Acids*, which are disinfection byproducts and are suspected to be human carcinogens. Finally, the District administers an active and aggressive *Backflow Prevention Program*, which protects our water supply from the possibility of contamination coming from the customer's side of the meter.

In addition to our water quality efforts, the Metropolitan Water District performs over 300,000 analyses each year to monitor over 115 contaminants and characteristics of its supplies, including tests for water clarity (Turbidity), organic chemicals (pesticides, PCB's), volatile organic compounds, inorganic compounds, disinfection byproducts (DBP's), disinfectant residuals and radionuclides. Metropolitan also monitors for contaminants that are not yet regulated (i.e., assigned a safety limit) to help EPA and SWRCB to determine where certain contaminants occur and whether the contaminants need to be regulated in the future.

2015 Water Quality Data - Valley Center Municipal Water District

Our water quality information for 2015 is listed in the tables on this page. Contained in the table are the test results for clarity and microbiological safety. Also included are results for 10 inorganic and secondary standards (aesthetic). Finally, the table includes results for 12 "other parameters" for which there are no current state or federal standards.

What do all the abbreviations mean?

A number of abbreviations are contained on the Water Quality tables which are important to your understanding of the data, and those are:

Maximum Contaminant Level or 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 or 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 U.S. Environmental Protection Agency.

Maximum Residual Disinfection Level or MRDL.

Maximum Residual Disinfection Level Goal or MRDLG.

Public Health Goal or 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.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWS do not affect the health at the MCL levels.

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

ABBREVIATIONS

A	=	Absence
AI	=	Aggressive Index
AL	=	Action Level: the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
CFU/mL	=	Colony-forming units per milliliter
DBP	=	Disinfection Byproducts
DLR	=	Detection Limits for purposes of Reporting
HPC	=	Heterotrophic Plate Count
LRAA	=	Locational Running Annual Average
MCL	=	Maximum Contaminant Level
MCLG	=	Maximum Contaminant Level Goal
MRDL	=	Maximum Residual Disinfectant Level
MRDLG	=	Maximum Residual Disinfectant Level Goal
MRL	=	Method Reporting Limit
N	=	Nitrogen
NA	=	Not Applicable
ND	=	Non Detectable
NL	=	Notification Level
NTU	=	Nephelometric Turbidity Units is a measure of the suspended material in water
P	=	Presence
pCi/L	=	Pico Curies per liter (a measure of radiation)
PHG	=	Public Health Goal
ppb	=	Parts per Billion
ppm	=	Parts per Million
ppt	=	Parts per Trillion
SI	=	Saturation Index
TOC	=	Total Organic Carbon
TON	=	Threshold Odor Number
TT	=	Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water
µS/cm	=	Micromhos per centimeter

Important!

2015 Water Quality Report

If appropriate, please post this report so that others may review its contents. Additional copies may be obtained by contacting the District at (760) 735-4500.

PARAMETER (a)	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Test Results Range	Test Results Average	Major Sources in Drinking Water
Percent State Project Water	%	NA	NA	0-6	3	
PRIMARY STANDARDS – MANDATORY HEALTH RELATED STANDARDS						
CLARITY						
Combined Filter Effluent Turbidity	NTU %	TT = 1 TT(b)	NA	Highest % <0.3	0.10 100%	Soil runoff
CONTAMINANTS MONITORED BUT NOT DETECTED						
Total Coliform Bacteria (c) (m)	%	5.0	0	NA	0	Naturally present in the environment
Fecal Coliform Bacteria and E. Coli (c) (m)	CFU/mL	0	0	0	0	Human and animal fecal waste
Arsenic	ppb	10	0.004	ND	ND	Natural deposits erosion, glass and electronics production wastes.
Nitrate (as N) (i)	ppm	10	10	ND	ND	Runoff and leaching from fertilizer use; sewage; natural deposit erosion
INORGANIC CHEMICALS						
Copper (f) Triennial 2013	ppm	AL = 1.3	0.3	90 th Percentile	0.104	Internal corrosion of household plumbing; natural deposit erosion
Fluoride Treatment-related (l)	ppm	2.0	1	0.5-0.9	0.7	Water additive for dental health
Lead (f) Triennial 2013	ppb	AL = 15	0.2	90 th Percentile	4	Internal corrosion of household plumbing; natural deposit erosion
RADIOLOGICAL						
Uranium	pCi/L	20	0.43	1-2	2	Erosion of natural deposits
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSERS						
Total Trihalomethanes (e)	ppb	80	NA	Highest LRAA 22 13.0-26.0	18.2	By-product of drinking water chlorination
Haloacetic Acid (d)	ppb	60	NA	Highest LRAA 14 5.6-16.0	11.0	By-product of drinking water chlorination
Total Chlorine Residual (Chloramines)	ppm	[4.0]	[4.0]	1.6-2.1	1.8	Drinking water disinfectant added for treatment
SECONDARY STANDARDS – AESTHETIC STANDARDS						
Chloride	ppm	500	NA	102-105	104	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	1	1	Naturally occurring organic materials
Odor Threshold (h)	TON	3	NA	0-<1	<1	Naturally occurring organic materials
Specific Conductance	uS/cm	1600	NA	1000-1050	1020	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	237-249	243	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids(TDS)	ppm	1000	NA	639-655	647	Runoff/leaching from natural deposits; seawater influence
Turbidity (b)	NTU	5	NA	0.073-0.21	0.105	Soil runoff
OTHER PARAMETERS						
Alkalinity	ppm	NA	NA	125-130	128	
Boron	ppb	NL=1000	NA	130	130	Runoff/leaching from natural deposits; industrial waste
Calcium	ppm	NA	NA	75-78	77	
Corrosivity (k) (as Aggressive Index)	AI	NA	NA	12.5	12.5	Elemental balance in water; affected by temperature, other factors
Corrosivity (g) (as Saturation Index)	SI	NA	NA	0.63-0.74	0.69	Elemental balance in water; affected by temperature, other factors
Hardness	ppm	NA	NA	290-307	299	
Magnesium	ppm	NA	NA	25-27	26	
pH	Units	NA	NA	8.1-8.2	8.1	
Potassium	ppm	NA	NA	4.7-5.1	4.9	
Sodium	ppm	NA	NA	96-103	100	
Total Organic Carbon (TOC)	ppm	TT	NA	2.0-2.6	2.3	Various natural and man-made sources
UCMR 3 (j) (Unregulated Contaminant Monitoring Rule)						
PARAMETER	Units	MCL	[DLR] MRL	Test Results Range	Test Results Average	Major Sources in Drinking Water
Chlorate	ppb	NL=800	[20]	34-80	52.1	By product of water chlorination
Chromium	ppb	50	[10]	0.38-0.40	0.39	Industrial waste discharges, natural causes
Hexavalent Chromium	ppb	10	[1]	0.040-0.071	0.054	Industrial waste discharges, natural causes
Molybdenum	ppb	NA	1	2.9-4.7	4.0	Mineral salt oxidation
Strontium	ppb	NA	0.3	600-1100	900	Decay of natural deposits
Vanadium	ppb	NL=50	[3]	0.20-0.21	0.206	Mineral and fossil fuel deposits

FOOTNOTES

- (a) Data shown are annual averages and ranges.
- (b) As Primary Standards, 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 1.0 NTU for more than one hour. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance.
- (c) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. When collecting <40 samples, if two or more are total coliform positive, the MCL is violated. The MCL was not violated.
- E. coli MCLs: The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute violation. Standards and results are based on distribution system monthly sampling averages. Compliance is based on distribution system sampling from all pressure zones. 416 samples were analyzed in 2015. The MCL was not violated.
- (d) Calculated from the average of quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.

- (e) Calculated from the average quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.
- (f) Lead and copper are regulated in a Treatment Technique under the Lead and Copper Rule. The lead and copper results for 2015 are from 30 water samples collected from the consumers' tap throughout the VCMWD distribution system. The federal action level, which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1.3 ppm for copper and 15 ppb for lead. There were zero samples that exceeded the action level.
- (g) Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes
Negative SI index = corrosive; tendency to dissolve calcium carbonate.
- (h) Results are from VCMWD's laboratory's flavor-profile analysis that detects odor occurrences more accurately.
- (i) State MCL is 45 ppm as nitrate, which equals 10 ppm as (N).
- (j) In 2014, the USEPA required VCMWD to test for a specific list of compounds. VCMWD is required to report the results on this CCR in order to comply with State of California reporting requirements.

- (k) AI <10.0 = highly aggressive and very corrosive water
AI >12.0 = non-aggressive water
AI (10.0 – 11.9) = moderately non-aggressive water
- (l) Metropolitan Water District was in compliance with all provisions of the State's Fluoridation System Requirements. For additional information, visit the Health Department's fluoridation website: www.cdph.ca.gov/certlic/drinkingwater/pages/Fluoridation.aspx
- (m) There is no range or average for total coliform sample results. VCMWD had no coliform present samples in 2015. Samples are collected every Monday, and the number collected per month is either 32 or 40.