ALAMEDA COUNTY WATER DISTRICT

Water Quality Report 2015

Dear ACWD Customer:

This report summarizes the results of the thousands of analyses conducted on your drinking water during 2015. Providing high quality water to our customers is a core mission component of ACWD. Therefore, I am pleased to inform you that your water consistently met or surpassed all federal and state drinking water standards for public health and safety over the course of the year. To learn more about the quality of your drinking water, turn to the following pages:

Robert Shaver
General Manager

Your Views Are Welcome

Meetings of ACWD's Board of Directors typically begin at 6:00 p.m. on the second Thursday of each month and are open to the public. Meetings are held in the ACWD Board Room at the District's headquarters at 43885 South Grimmer Boulevard in Fremont. Further information regarding the Board meeting schedule can be found on our website at www.acwd.org/board.

If you have any questions or need any more information about the quality of your water, please let us know. We would also appreciate any comments you have about this report. We can be reached by phone at (510) 668-4200, fax (510) 770-1793, on the Internet at www.acwd.org, or by mail at: Alameda County Water District, P.O. Box 5110, Fremont, CA 94537. Laura Hidas, Water Production Manager, can be reached at (510) 668-6516.

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ACWD
ALAMEDA COUNTY WATER DISTRICT

A Message from the USEPA and the State Water Resources Control Board, Division of Drinking Water

A Note about Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. These contaminants enter water as it travels over the surface of the land or through the ground, dissolving substances that are naturally present in the environment or picking up substances resulting from the presence of animals or human activity. The presence of contaminants does not necessarily indicate that water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) 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. State Board regulations are in many cases more stringent than federal ones. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800-426-4791).

Information for the Immuno-Compromised

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

A Note about Lead from the U.S. Environmental Protection Agency

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. Alameda County 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at www.epa.gov/lead.

Comprehensive Water Quality Monitoring

ACWD works diligently to ensure that your water complies with all state and federal drinking water standards. This is a comprehensive effort that includes monitoring and testing for many types of contaminants that may be present in source water (i.e., water before treatment), including:

- Microbials, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganics, 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, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemicals, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, or that may come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

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

Highly trained analysts and certified water treatment plant operators in our state-certified laboratory and satellite laboratories are committed to conducting these tests under a stringent Quality Assurance/Quality Control (QA/QC) program. Through written procedures, analytical proficiency testing, and detailed record maintenance, the QA/QC program ensures the quality of the analytical data produced by our laboratories. ACWD staff members collect samples daily from the water sources, treatment facilities, and distribution system to ensure only high quality water is delivered to our customers.

2015 Water Quality Information

In 2015, the laboratory analysts and water treatment plant operators in ACWD's state certified laboratories and satellite laboratories analyzed for more than 180 substances in ACWD treated water and found very few of them in your water. In all cases, the water was in compliance with federal and state standards for public health and safety. There are two types of standards ACWD is required to meet:

Primary Drinking Water Standards set limits for substances in water that may be harmful to humans if consumed in excess. They include MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards deal with aesthetic qualities such as taste and odor which relate to consumer acceptance rather than health factors.

A summary of key results for 2015 is presented in the following tables. Technical terms and abbreviations used in the tables are explained below.

Definitions

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 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 Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL): State Board health-based advisory levels used to provide information to public water systems and others about unregulated contaminants in drinking water. Unregulated contaminant monitoring helps the USEPA and the State Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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

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

Abbreviations

$CaCO_3$: Calcium carbonate.

mg/L: Milligrams per liter (which is equal to parts per million).

µg/L: Micrograms per liter (which is equal to parts per billion).

ppm: Parts per million (which is equal to milligrams per liter).

ppb: Parts per billion (which is equal to micrograms per liter).

pCi/L: Picocuries per liter (a measure of radioactivity).

µmhos/cm: Micromhos/centimeter.

NTU: Nephelometric turbidity units.

ND: The substance could not be found at the minimum amount that can be detected.

NA: Not Applicable.

Primary Drinking Water Standards

Parameters	Units	Primary MCL or [MRDL]	{PHG} (MCLG) or [MRDLG]	Treated Surface Water (1)		Purchased San Francisco Water (1)		Blended Water (1)		Desalinated Water (1)		Major Sources
				Range	Average	Range	Average or [Max.]	Range	Average	Range	Average	
Aluminum	ppm	1	{0.6}	ND		ND - 0.09	ND	ND		ND		Erosion of natural deposits
Fluoride (naturally-occurring)	ppm	2	{1}	0.14		0.67 - 0.95 (2)	0.81 (2)	0.12 - 0.23	0.19	ND - 0.21	ND	Erosion of natural deposits
Fluoride (treated water) (3)	ppm	2	{1}	Average = 0.9 (Range: 0.8 - 1.0)								Water additive that promotes strong teeth
Bromate	ppb	10	{0.1}	Highest RAA (4) = 2.1 (Range of individual detections: ND - 4.4)								Disinfection by-product
Disinfectant Residual (as Cl_2) (5)	ppm	[4]	[4]	Annual Average = 1.7 (Range of individual detections: 0.1 - 2.9)								Disinfectant residual
Gross Alpha (6)	pCi/L	15	(0)	ND - 3.7	ND	ND		ND		ND		Erosion of natural deposits
5 Haloacetic Acids (HAA5) (7)	ppb	60	NA	Highest LRAA = 28 (Range of individual detections: ND - 45) (8)								Disinfection by-products
Nitrate (as N)	ppm	10	{10}	ND - 1.3	ND	ND		ND - 0.58	ND	0.55 - 0.62	0.60	Runoff from fertilizer use; erosion of natural deposits
Nitrate + Nitrite (as N)	ppm	10	{10}	ND - 1.3	ND	ND		ND - 0.59	ND	0.56 - 0.64	0.61	Runoff from fertilizer use; erosion of natural deposits
Radium-226 (6)	pCi/L	NA (9)	{0.05}	ND		1.9		ND		ND		Erosion of natural deposits
Total Coliform (10)	%	5 (11)	(0)	Highest Monthly Percentage = 0.5% (Range of monthly percentages: 0 - 0.5%)								Naturally present in the environment
Total Trihalomethanes (TTHMs) (12)	ppb	80	NA	Highest LRAA = 49 (Range of individual detections: ND - 68) (8)								Disinfection by-products
Turbidity (13)	NTU	TT = 0.1 or 0.3 (14)	NA	0.02 - 0.43	0.05	NA		Not subject to the turbidity monitoring requirement				Soil runoff
		TT = 5.0 (15)	NA	NA		0.2 - 0.5 (16)	[3.1]					

Lead and Copper Sampling Program (17)	Units	AL (18)	{PHG}	Range	90th Percentile Value	Number of Samples Collected	Number of Samples above AL	Typical Sources in Drinking Water
Copper	ppm	1.3	{0.3}	ND - 0.5	0.3	66	0	Corrosion of household plumbing systems
Lead	ppb	15	{0.2}	ND - 21.9	8.1	66	3	Corrosion of household plumbing systems

Secondary Drinking Water Standards

Parameters	Units	Secondary MCL	Treated Surface Water		Purchased San Francisco Water		Blended Water		Desalinated Water		Major Sources
			Range	Average	Range	Average	Range	Average	Range	Average	
Aluminum	ppm	0.2	ND		ND - 0.09	ND	ND		ND		Erosion of natural deposits
Chloride	ppm	500	94 - 197	141	3.4 - 12	6.8	34 - 67	52	52 - 56	54	Runoff/leaching from natural deposits; seawater influence
Color	units	15	ND - 5	ND	ND		ND		ND		Naturally-occurring organic materials
Manganese	ppb	50	ND - 61	ND	ND		ND		ND		Leaching from natural deposits
Specific Conductance	µmhos/cm	1,600	618 - 966	765	49 - 289	140	439 - 601	538	365 - 403	382	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	33 - 55	46	1.0 - 36	14	40 - 48	45	18 - 20	19	Naturally-occurring minerals
Total Dissolved Solids	ppm	1,000	330 - 500	398	24 - 150	76	250 - 330	295	180 - 210	195	Naturally-occurring minerals and metals

Other Water Quality Parameters

Parameters	Units	NL	Treated Surface Water		Purchased San Francisco Water		Blended Water		Desalinated Water		Major Sources
			Range	Average	Range	Average	Range	Average	Range	Average	
Alkalinity	ppm as $CaCO_3$	NA	90 - 117	104	ND - 85	38	122 - 168	148	76 - 86	82	Naturally-occurring mineral
Calcium	ppm	NA	21 - 29	26	3.4 - 23	9.8	32 - 40	36	13 - 15	14	Naturally-occurring mineral
Hardness (19)	ppm as $CaCO_3$	NA	126 - 164	143	12 - 94	41	136 - 168	159	62 - 72	67	Naturally-occurring mineral
Magnesium	ppm	NA	15 - 22	18	0.20 - 8.7	2.9	14 - 17	16	6.5 - 6.9	6.7	Naturally-occurring mineral
pH	units	NA	7.8 - 8.5	8.2	8.6 - 9.7	9.3	7.9 - 8.4	8.1	8.7 - 8.9	8.8	Naturally-occurring mineral
Potassium	ppm	NA	3.5 - 5.3	4.2	ND - 1.5	ND	1.4 - 1.8	1.6	ND - 0.62	ND	Naturally-occurring mineral
Sodium	ppm	NA	75 - 130	96	ND - 22	10	39 - 60	51	49 - 53	51	Naturally-occurring mineral

(1) Refer to the "Distribution System Map" (page 5) to determine the type of water you typically receive based on your location.

(2) Fluoride in purchased San Francisco water includes both naturally-occurring fluoride and fluoride added by SFPUC to the regional supply upstream of ACWD.

(3) ACWD treats your water by adding fluoride to the naturally-occurring level in order to help prevent dental caries in consumers. The fluoride levels in treated water are maintained within a range of 0.8 - 1.4 ppm, as required by State regulations.

(4) Compliance is based on a running annual average (RAA) of 12 monthly samples.

(5) Disinfectant residual in the distribution system consists of combined chlorine (chloramines); results are reported as Total Combined Chlorine.

(6) Due to consistently low sampling results, the State Board approved reduced gross alpha and radium-226 monitoring frequency to once every 6 years. Results reported here were collected in 2012.

(7) Five Haloacetic Acids is the sum of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

(8) Compliance is based on locational running annual average (LRAA) of distribution samples collected in 4 quarters.

(9) No MCL exists for Radium-226 only, but the MCL for combined Radium-226 and Radium-228 is 5 pCi/L. Results reported for Radium-228 were ND in 2012.

(10) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. 'Positive' or 'negative' results indicate a presence or absence of biological activity in a sample.

(11) The percent of monthly samples that are Total Coliform-positive shall not exceed 5%.

(12) Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

(13) Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness. Turbidity is measured in NTUs (nephelometric turbidity units).

(14) Treatment Technique (TT) performance standard: 0.1 NTU for filtered water in 95% of the measurements from MSJWTP taken at 15-minute intervals each month and shall not exceed 1.0 NTU at any time. 0.3 NTU for filtered water in 95% of the measurements from WTP2 taken at 15-minute intervals each month and shall not exceed 1.0 NTU at any time. The treated surface water met these standards 100% of the time during 2015.

(15) Treatment Technique (TT) performance standard: 5 NTU for unfiltered water. The purchased SFPUC water met this standard 100% of the time during 2015.

(16) Purchased San Francisco water turbidity is measured every 4 hours. These are monthly average turbidity values.

(17) In compliance with federal Lead and Copper Program requirements, 1 liter samples are taken by customers from within their homes after a 6 to 12 hour stagnation period.

(18) Compliance is based on 90th percentile values, which should be less than the action level (AL).

(19) For customers who want to know their hardness value in grains per gallon (gpg), divide the provided hardness value by 17.1.

Where Our Water Comes From

ACWD supplies water to the Tri-City area from four sources.

- Treated surface water is imported from the Sacramento-San Joaquin Delta and/or Lake Del Valle via the South Bay Aqueduct. This water is purified at our surface water treatment plants and then delivered to customers living in central and south Fremont.
- Purchased San Francisco water is surface water which originates in either Hetch Hetchy Reservoir in Yosemite National Park, or locally in Calaveras or San Antonio Reservoirs in the Alameda Creek watershed. Hetch Hetchy water meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality, and operational standards and has thus been granted a filtration exemption by the USEPA and the State Board. Water from the local reservoirs is treated by SFPUC at a water treatment plant. Water from the San Francisco system is normally delivered through Hetch Hetchy Aqueduct connections in Fremont. Additional connections in Fremont and Newark may be used to meet peak summer water demands and in times of emergency.
- Blended water consists of a combination of purchased San Francisco water and local groundwater. The groundwater supply comes from the Niles Cone Groundwater Basin which underlies the Tri-City area and is replenished through infiltration from local rainwater, runoff from the Alameda Creek watershed, and water from the South Bay Aqueduct. Purchased San Francisco water is blended with Peralta/Tyson and Mowry Wellfield water at our Blending Facility and is delivered to customers living in north Fremont, Union City, and parts of Newark.
- Desalted or desalinated water is produced at the Newark Desalination Facility (NDF) from brackish (slightly salty) local groundwater. The desalinated water produced by the NDF is blended with Aquifer Reclamation Program well water to achieve a more balanced mineral content before being delivered to customers living in Newark.

Typical Distribution System Map

Your location in the Tri-City area determines the type of water you receive.

Alameda County Water District Customers Protected by Thorough Water Quality Monitoring Programs

The topic of water quality is at the national forefront following a public health crisis involving excess lead in the drinking water in Flint, Michigan. In our community, however, customers of the Alameda County Water District are protected by a comprehensive water quality and sampling program. Each year, ACWD's state-certified laboratories analyze for more than 180 substances to ensure the drinking water in Fremont, Newark, and Union City continues to meet or surpass all federal and state drinking water standards.

Further protection comes from ACWD's corrosion control program, in place since the 1990s. This program monitors our treatment processes daily in accordance with the US Environmental Protection Agency's Lead and Copper Rule, a federal regulation designed to minimize lead and copper in drinking water.

Lead can get into drinking water when service lines, household pipes, or household fixtures corrode, but ACWD is fortunate in that we do not have lead service lines and our source water does not contain lead. Our corrosion control program helps to limit leaching of lead by preventing the corrosion of household pipes and fixtures.

ACWD also fulfills the USEPA's Lead and Copper Rule sampling requirements–currently we test first-draw samples at the taps of homes every three years to ensure full compliance with the federal regulations. The results of our 2015 testing documented that our corrosion control program has been effective.

Even with our effective corrosion control program, customers may choose to take steps on their own to further minimize the potential for lead in drinking water. Simple measures include: using only cold water for drinking, cooking, or preparing baby formula; flushing the tap if water has been sitting still in the line for several hours; and considering replacement of older fixtures with "lead-free" fixtures.

The safety of your drinking water is our most important responsibility and transparency is our goal. For more information about ACWD's water quality, please call 510.668.6500 or visit www.acwd.org.

Drinking Water Source Assessment

In response to 1996 federal Safe Drinking Water Act amendments, California was required to implement a Source Water Assessment program. Drinking Water Source Assessments are conducted to determine how vulnerable drinking water sources are to contamination. Assessments have been completed for all of ACWD's water sources.

- The San Francisco Public Utilities Commission (SFPUC), which operates the Hetch Hetchy system, completed its assessment in 2000. It was found that SFPUC watersheds are vulnerable to contaminants associated with wildlife and, to a limited extent, human recreational activity. Historically, the levels of contaminants have been very low in the watersheds.
- The South Bay Aqueduct (SBA) source assessment was completed in 2002. This source is most vulnerable to agricultural drainage, wastewater treatment plant discharges, urban runoff, recreational activity, and cattle grazing. In addition, seawater intrusion contributes salt and bromide to the water supply.
- ACWD's assessment of local groundwater sources was also completed in 2002. These sources are most vulnerable to existing and historic gas stations, known contaminant plumes, leaking underground storage tanks, dry cleaners, metal plating/finishing/fabricating, and sewer collection.

Although ACWD water sources are vulnerable to potentially contaminating activities, our treatment and blending facilities purify your tap water to ensure that the strict standards set by federal and state regulatory agencies are met or surpassed. Complete assessments may be reviewed at ACWD headquarters located at 43885 South Grimmer Boulevard in Fremont.

To have a summary of the assessments sent to you, please call Laura Hidas, Water Production Manager, at (510) 668-6516.

ALAMEDA COUNTY WATER DISTRICT
43885 South Grimmer Blvd.
Fremont, CA 94538

2015 Water Quality Report

Este reporte contiene información muy importante de su salud y el agua que toma. Tradúzcalo por favor ó hable con alguien que lo entienda bien.

Este relatório contém informações importantes sobre sua água potável. Por favor traduza-o ou fale com alguém que entenda o que está escrito.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Dieser Report enthält wichtige Informationen Åber Ihr Trinkwasser. übersetzen Sie ihn bitte oder sprechen Sie mit jemand, das ihn versteht.

Ce rapport contient de l'information importante concernant votre eau potable. Veuillez le traduire, ou parlez-en avec quelqu'un qui le comprend.

ਇਸ ਰਿਪੋਰਟ ਵਿਚ ਤੁਹਾਡੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਵਾਰੇ ਬਹੁਤ ਜਰੂਰੀ ਸੂਚਨਾ ਹੈ। ਇਸ ਨੂੰ ਪੜ੍ਹੋ ਜਾਂ ਜੋ ਸਜਨ ਇਸ ਨੂੰ ਸਮਝ ਸਕਦੇ ਹਨ, ਉਸ ਕੋਲੋਂ ਸਮਝੋ।

"هذا التقرير يحتوي على معلومات مهمّة تتعلق بمياه الشفة (أو الشرب). ترجم التقرير, أو تكلم مع شخص يستطيع أن يفهم التقرير."

Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

このレポートはあなたの飲料水に関する重要な情報が含まれています。翻訳するか、レポートの内容を理解できる方に説明してもらってください。

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。

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

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

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