Dublin San Ramon Services District
Water, wastewater, recycled water

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo 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.

2018 ANNUAL WATER QUALITY REPORT

April 30, 2019

A MESSAGE FROM THE GENERAL MANAGER

Our Annual Water Quality Report offers insight into the quality of your drinking water based on test results from over a thousand water samples collected throughout 2018. Please read the report to learn where your water comes from, what it contains, and how it compares to state and federal drinking water standards. In 2018, your tap water met all U.S. EPA and California drinking water health standards.

The Dublin San Ramon Services District (DSRSD) and our water wholesale supplier, Zone 7 Water Agency, protect public health and the environment by monitoring potable (drinking) water for more than 100 contaminants.

Flushing Water Lines to Improve Quality

The District's water quality management team worked diligently in 2018 to ramp up our schedule of water line flushing throughout the system. The flushing process scours the walls of water pipes to remove natural sediments and other unwanted deposits that build up over time, and it is one of the best ways to improve water quality.

In previous years, flushed water was sent to storm drains, ending up in local tributaries flowing to San Francisco Bay. In 2018, water operators began sending the majority of flushed water to the sanitary sewer, which returns it to our wastewater treatment plant where it is treated and available for reuse as recycled irrigation water.

Ozonation to Improve Quality and Taste

Zone 7 broke ground in May 2018 on its Del Valle Treatment Plant ozonation project, with an expected completion of March 2020.

Zone 7 broke ground on another major upgrade and ozonation project at Patterson Pass Treatment Plant in April 2019, with completion expected in 2022. The project will improve water quality by minimizing disinfection by-products by using ozone instead of chlorine as the primary disinfectant. Ozonation will also improve drinking water taste and odor.

New District Election Areas

In late 2018, DSRSD began the transition from at-large to area-based elections for the District. In the past, residents in DSRSD's service area voted for all five members on the Board of Directors. In compliance with the California Voting Rights Act, now voters residing in individual election areas will select one representative from their area every four years to serve on the Board. Watch for communications from the District in 2019 to learn more about the new election system and how to get involved.

We at DSRSD know you depend on us to provide a safe and reliable water supply, and our employees work conscientiously every day to fulfill this responsibility to you, our community. I always welcome your input. Reach me at mcintyre@dsrsd.com or (925) 875-2200.

Daniel McIntyre
General Manager

SOURCES OF OUR POTABLE WATER

DSRSD purchases all of its potable (drinking) water from Zone 7 Water Agency (Zone 7). This water comes from three sources: 80% is imported surface water from the California State Water Project, 10% is local rain runoff that is stored in Del Valle Reservoir, and 10% is groundwater from local wells.

Normally, most of our water supply starts in the Sierra Nevada as rain and snowmelt. Conveyed by the State Water Project from Lake Oroville on the Feather River in northern California, it travels through the Sacramento River, the Delta, and the South Bay Aqueduct to Zone 7 Water Agency's Del Valle and Patterson Pass treatment plants. When State Water Project allocations are restricted, more of our water comes from local sources.

An aerial view of structural concrete work on the Lake Oroville main spillway. Photo taken October 3, 2018.

SAFETY STANDARDS REGULATE CONTAMINANTS

The sources of drinking water (both tap water 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, in some cases, radioactive material, and can pick up substances resulting from human activities or the presence of animals.

Contaminants that may be in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from upstream sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, that can occur naturally 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 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 storm water runoff, agricultural application, and septic systems;
- Radioactive contaminants that can occur naturally or result from oil and gas production and mining activities.

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (State Board) set regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Additional information on water safety is available on the State Water Resources Control Board, Division of Drinking Water: www.waterboards.ca.gov/publications_forms/publications/legislative/docs/2015/sdwp.pdf.

Photo credit: CA Dept of Water Resources/ Florence Low

Primary drinking water standards set maximum contaminant levels (MCL) and maximum residual disinfectant levels (MRDL) for substances that affect health, along with monitoring and reporting requirements for these substances and water treatment requirements. Secondary standards protect the odor, taste, and appearance of drinking water. Secondary standards do not have public health goals (PHG) because they are not based on health concerns.

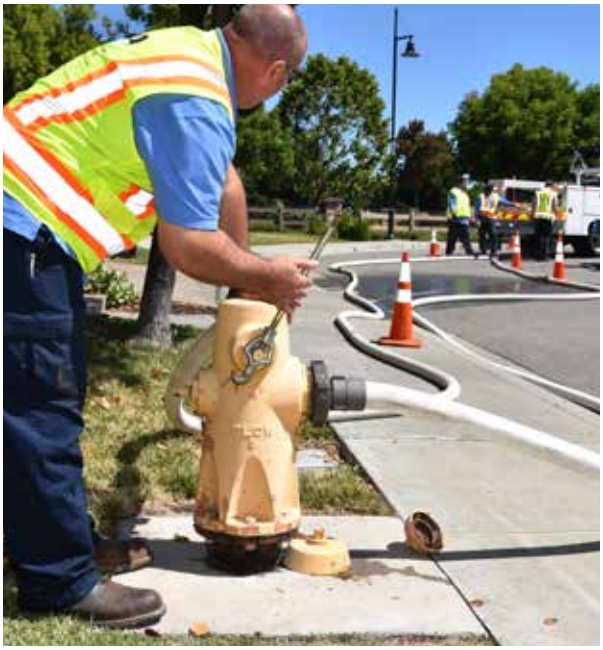
HOW WE MONITOR WATER QUALITY

Monitoring for Contaminants

DSRSD employees collect representative samples from numerous locations throughout the water distribution system. These samples undergo analysis in the District's laboratory, which is certified by the California State Water Resources Control Board Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program. Zone 7 monitors water quality continuously online, as well as with instantaneous or "grab" samples. In all, DSRSD and Zone 7 test for more than 100 water quality parameters.

Treatment and Disinfection

Zone 7 disinfects and removes pollutants from surface water using a multi-barrier approach, and groundwater is chloraminated to maintain a disinfectant residual in the distribution system. After receiving treated water from Zone 7, DSRSD maintains a consistent residual level of disinfectant in its distribution system and flushes pipelines to prevent bacterial growth.



Water Systems Lead Operator Danny Leonardo opens a hydrant used to flush a drinking water main at the end of Trescott Court in Dublin. Flushing water lines is one of the best ways to improve water quality.

Assessing the Quality of Source Water

Zone 7 drinking water sources include local and imported surface water as well as groundwater. Protecting our source water is an important part of providing safe drinking water to the public.

A source water assessment is conducted on each drinking water source as required by the DDW. Groundwater sources in general can be vulnerable to releases from chemical/petroleum pipelines, leaking tanks, groundwater contamination plumes, septic tanks, and wastewater-collection systems. Surface water is most vulnerable to contaminants as it travels through the Sacramento and San Joaquin watersheds and Delta.

A comprehensive Watershed Sanitary Survey for the State Water Project (SWP) was completed in 1990 and is updated about every five years. The most recent survey was completed in June 2017 and included two special topics on "Grazing" and "Impacts of the 2012 to 2015 Drought."

The recommendations presented in the sanitary survey are potential actions for consideration by various agencies in the state of California. The Department of Water Resources (DWR) Municipal Water Quality Investigations (MWQI) Program and the Division of Operations and Maintenance (O&M) continue to conduct a comprehensive water quality monitoring program of the Delta and the SWP facilities. The long period of record at many locations allows the data to be analyzed for spatial trends, long-term trends, and seasonal trends.

After leaving the Delta, water is transported to Zone 7 via the South Bay Aqueduct (SBA). SBA water quality may also be vulnerable to pollution from local cattle grazing, wildlife activities, and recreational activities in the watersheds of the Bethany and Del Valle reservoirs. Zone 7 is proactively participating in a number of activities to improve water supply reliability and water quality of the SBA.

Request a copy of any public outreach materials, source water assessment reports, or sanitary surveys by calling Zone 7 Water Quality Manager Gurpal Deol at (925) 447-0533.

2018 Water Quality Test Results

The tables on pages 6 and 7 show the average level and range of each contaminant detected in the DSRSD water supply in 2018. All water supplied to customers during 2018 met the regulatory standards set by the state and federal governments. Additional unregulated parameters, such as sodium levels and water hardness, are included in the tables to assist customers in making health or economic decisions.

IMPORTANT HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Individuals with compromised immune systems (such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, and people with HIV/AIDS or other immune system disorders), some elderly people, and infants can be particularly at risk from infections. These vulnerable individuals 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: (800) 426-4791.

Minimizing Exposure to Lead

Lead was not detected above the regulatory action level in the DSRSD water supply. 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 (pipelines that deliver water) and home plumbing. DSRSD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

Every three years, DSRSD is required to test the indoor tap water from a sample of homes built before 1986, when plumbing fixtures like faucets and pipe solder were allowed to contain lead. Our next lead and copper sampling event will be in 2019.

The EPA requires that 90 percent of the samples be below the regulatory action level of 15 parts per billion. The District's results were much better than this standard. When the last residential samples were taken, only two homes were at or above the regulatory action level. While we were not required to take any action, our staff advised the homeowners about the advantages of replacing old plumbing and fixtures with new lead-free materials.

When your water has been sitting in pipes for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using the water for drinking or cooking. (Please collect the flushed water and reuse it for another 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.

Testing for Lead in Schools

In 2018, DSRSD received lead sampling requests from 13 schools (kindergarten through 12th grade). During 2017-2018, 21 schools in the DSRSD service area were sampled for lead. Lead sampling information and results can be found at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html.

Many household items such as water- or stain-repellent fabric, non-stick cookware, and fire retardant foam and material contain PFAS.

PFOS DETECTED IN GROUNDWATER

PFOS (perfluorooctanesulfonic acid) is a fluorinated organic chemical of emerging concern that is part of a larger group of chemicals referred to as PFAS (per- and polyfluoroalkyl substances). These substances, created by humans, have been used extensively in consumer products designed to be waterproof, stain-resistant, or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes.

PFOS is currently not a regulated contaminant in California. However, in July 2018, the California Division of Drinking Water (DDW) established a notification level of 13 parts per trillion (ppt) and a recommended response level of 70 ppt for PFOS (singly or combined with PFOA, perfluorooctanoic acid) in drinking water. These are health-based advisory levels, not drinking water standards. These are precautionary measures for contaminants that may be considered candidates for establishing maximum contaminant levels, but have not yet undergone or completed the regulatory standard-setting process prescribed for the development of maximum contaminant levels.

Protecting public health and safety and the environment is DSRSD's highest priority. Zone 7 Water Agency, the Tri-Valley's water wholesaler, monitored for several PFAS at select drinking water sources in 2013, per the Unregulated Contaminant Monitoring Rule 3, and all sources in late 2018 and early 2019. Due to advancement in analytical technology, detection limits were much lower during recent monitoring as compared to 2013.

During recent monitoring, Zone 7 found that all three wells in Chain of Lakes Well Field had PFOS above notification level (average 24 ppt, with a range of 12 to 35 ppt). One out of four wells in Mocho Well Field was above notification level, and one well was above response level (average 38 ppt, with a range <2 to 86 ppt).

There is no immediate indication of a source for this contaminant. Immediately after detection of PFOS above the response level in the Mocho 1 Well, Zone 7 implemented procedures in the Mocho Well Field to reduce PFOS below the response level in water supply. Zone 7 also initiated quarterly monitoring beginning in April 2019 on applicable wells per DDW directive. Zone 7's current treatment is to reduce PFOS below the response level by filtering the water through a membrane and blending it with other water sources.

PFAS exposure through drinking water has become an increasing concern. PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. People can also be exposed to PFAS through food, food packaging, consumer products, and household dust. Studies in animals who were exposed to PFAS found links between chemicals and increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Additional information is available at: www.waterboards.ca.gov/pfas and www.epa.gov/pfas.

CONTAMINANTS NOT DETECTED IN ZONE 7 WATER SUPPLY

None of these contaminants were detected at or above the Detection Limit for Purposes of Reporting (DLR) in the Zone 7 water supply during 2018 monitoring.

Primary Drinking Water Standards

ORGANIC CHEMICALS

Volatile Organic Chemicals (VOCs)

Benzene
Carbon Tetrachloride
1,2-Dichlorobenzene
1,4-Dichlorobenzene
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2-Dichloropropane
1,3-Dichloropropene
Ethylbenzene
Methyl-tert-butyl ether (MTBE)
Monochlorobenzene
Styrene
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Trichlorofluoromethane
1,1,2-Trichloro-1,2,2-Trifluoroethane
Vinyl Chloride
Xylenes

Synthetic Organic Chemicals (SOCs)

Alachlor
Atrazine
Bentazon
Benzo(a)pyrene
Carbofuran
Chlordane
2,4-D
Dalapon
Dibromochloropropane (DBCP)
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Dinoseb
Diquat

(SOCs continued)

Endothall
Endrin
Ethylene Dibromide (EDB)
Glyphosate
Heptachlor
Heptachlor Epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Lindane
Methoxychlor
Molinate
Oxamyl
Pentachlorophenol
Picloram
Polychlorinated Biphenyls
Simazine
Thiobencarb
Toxaphene
2,3,7,8-TCDD (Dioxin)
1,2,3-Trichloropropane (TCP)**
2,4,5-TP (Silvex)

INORGANIC CHEMICALS

Aluminum
Antimony
Arsenic
Asbestos*
Beryllium
Cadmium
Cyanide
Mercury
Nickel
Nitrite (as nitrogen)
Perchlorate
Thallium

*RADIONUCLIDES****

Radium-226, Radium-228
Beta/photon emitters
Tritium, Strontium-90

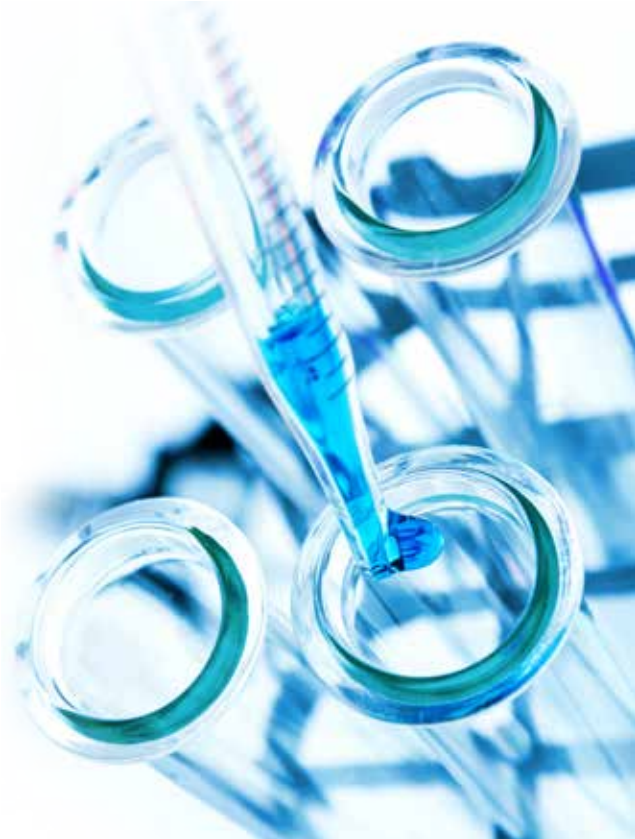
Secondary Drinking Water Standards

Aluminum
Copper
Foaming Agents (MBAS)
Iron
Manganese
Methyl-tert-butyl ether (MTBE)
Odor-Threshold
Silver
Thiobencarb
Zinc

* Latest monitoring for Asbestos was conducted in 2011.

** TCP MCL became effective on December 14, 2017.

*** Based upon low vulnerability, California DDW granted reduced monitoring for radionuclides for current supply sources on January 25, 2008. Only gross alpha particle activity monitoring is required once every nine years. The latest gross alpha monitoring was conducted in 2017. Uranium monitoring is conducted for supplemental information as in-house capabilities are available.



2018 WATER QUALITY TEST RESULTS

Terms Used

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

COL–Chain of Lakes

DLR–Detection Limit for Purposes of Reporting: Established by the State Water Resources Control Board, Division of Drinking Water.

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 (EPA).

mg/L–Milligrams per liter, or parts per million (ppm)

µg/L–Micrograms per liter, or parts per billion (ppb)

µS/cm–Microsiemens per centimeter

MRL–Minimum Reporting Level

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.

NA–Not Applicable

ND–Not Detected: Monitored for, but not detected at or above DLR or MRL. ND or value in range column indicates more than one analysis was performed during the year.

NTU–Nephelometric Turbidity Units: Determines size of suspended particles in a medium and visual range through the medium. Turbidity measures cloudiness and is a good indicator of the effectiveness of filtration systems.

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 EPA.

pCi/L–Picocuries per liter

RAA–Running Annual Average

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

Sources of Contaminants

The major sources of regulated contaminants are listed below and correspond to numbers in the columns labeled "Sources."

1 Erosion of natural deposits

2 Substances that form ions (subatomic particles with positive and negative charges) when in water

3 Runoff or leaching from fertilizers; leaching from septic tanks and sewage

4 By-product of drinking water disinfection

5 Drinking water disinfectant added for treatment

6 Runoff or leaching from natural deposits

7 Added to promote strong teeth

8 Naturally present in the environment

9 Internal corrosion of household water plumbing systems

10 Leaching from wood preservatives

11 Soil runoff

12 Discharge from petroleum, glass, and metal refineries; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

13 Discharges of oil drilling wastes and from metal refineries

14 Discharge from fertilizer and aluminum factories

15 Naturally occurring organic materials

16 Discharges from industrial manufacturers

17 Discharge from steel and pulp mills and chrome plating

18 Seawater influence

19 Industrial wastes

20 Various natural and man-made sources

Regulated Contaminants with PRIMARY and SECONDARY DRINKING WATER STANDARDS

Established by the State Water Resources Control Board (State Board), Division of Drinking Water (DDW)

DSRSD DISTRIBUTION SYSTEM						
Sources	**Contaminants (units)**	**MCL**	**DLR (MRL)**	**PHG, (MCLG) [MRDLG]**		
8	Total coliform bacteria	More than 5% of monthly samples are positive		(0)	**Highest percentage of monthly positive samples:** 1.1%	
					Average	**Range**
4	Total trihalomethanes (TTHMs), (µg/L)	80	1	NA	31*	2.8 - 36
4	Haloacetic acids (five) (HAA), (µg/L)	60	1-2	NA	15*	ND - 20
5	Chloramines as Chlorine (mg/L)	Maximum Residual Disinfectant Level (MRDL) = 4.0		[4]	1.6**	0.01 - 3.3
1, 7, 14	Fluoride (mg/L)	2.0	0.1	1	0.8	0.5 - 1.0

* Highest Locational Running Annual Average

** Highest Running Annual Average

(Chart continued on next page)

Regulated Contaminants with PRIMARY and SECONDARY DRINKING WATER STANDARDS *(chart continued from previous page)*

WATER SUPPLY SOURCES																				
Sources	Contaminants (units)	PRIMARY DRINKING WATER STANDARDS			Del Valle Water Treatment Plant		Patterson Pass Water Treatment Plant		Mocho Groundwater DeMin Plant		Mocho Well Field		Stoneridge Well		Hopyard Well Field		Chain of Lakes (COL) Well Field	
		MCL	DLR (MRL)	PHG, (MCLG), [MRDLG]	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range
11	Turbidity (NTU)	TT = 1 NTU Maximum		NA	Highest Level Found = 0.13 NTU		Highest Level Found = 0.13 NTU		NA		NA		NA		NA		NA	
		TT = 95% of samples ≤ 0.3 NTU		NA	% of samples ≤ 0.3 NTU = 100		% of samples ≤ 0.3 NTU = 100		NA		NA		NA		NA		NA	
20	Total Organic Carbon	TT = Quarterly RAA Removal Ratio ≥ 1.0		NA	Lowest Quarterly RAA Ratio = 2.0		Lowest Quarterly RAA Ratio = 1.8		NA		NA		NA		NA		NA	
	Inorganic Chemicals				Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range
1, 13	Barium (µg/L)	1000	100	2000	ND	ND	ND	ND	ND	ND	109	ND - 200	300	260 - 330	164	110 - 260	273	220 - 330
1, 17	Chromium Total (µg/L)	50	10	(100)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND - 12
1, 12	Selenium (µg/L)	50	5	30	ND	ND	ND	ND	ND	ND	ND	ND - 9	ND	ND	6	5 - 8	ND	ND - 10
1, 7, 14	Fluoride (mg/L)	2	0.1	1	ND	ND - 0.1	ND	ND - 0.1	ND	ND	ND	ND - 0.1	0.1	0.1	0.1	0.1	0.1	0.1
1, 3	Nitrate (as N) (mg/L)	10	0.4	10	ND	ND - 0.9	ND	ND - 0.6	1.3	1.0 - 1.5	3.3	2.3 - 4.2	3.6	3.4 - 3.7	3.8	3.0 - 5.0	3.9	3.0 - 4.7
	Radionuclides				Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range
1	Uranium (pCi/L)	20	1	0.43	ND	ND	ND	ND	ND	ND - 1.2	3	1-4	2	1 - 2	3	2-4	ND	ND - 1
	REGULATED CONTAMINANTS	**SECONDARY DRINKING WATER STANDARDS, established by DDW**																
15	Color (Units)	15	0	—	1.5	0 - 2.5	0	0	0	0	0	0	0	0	0	0	0	0
2, 18	Conductivity (µS/cm)	1600		—	509	363 - 694	474	361 - 624	644	424 - 765	1414	1100 - 1706	924	822 - 975	978	885-1090	755	675 - 852
6, 18	Chloride (mg/L)	500		—	94	57 - 140	91	57 - 140	80	45 - 102	181	146 - 209	93	80 - 100	81	68 - 90	67	45 - 95
6, 19	Sulfate (mg/L)	500	0.5	—	30	11 - 50	32	12 - 75	43	24 - 52	109	63 - 148	58	52 - 61	67	46 - 86	43	38 - 50
6	Total Dissolved Solids (mg/L)	1000		—	265	182 - 361	253	182 - 321	379	228 - 463	845	606 - 1020	539	466 - 571	559	481 - 616	431	378 - 512
11	Turbidity (NTU)	5	(0.05)	—	NA	NA	NA	NA	ND	ND	0.4	ND - 2.2	0.07	ND - 0.3	0.1	ND - 0.7	ND	ND - 0.4
	ADDITIONAL PARAMETERS — Included to assist consumers in making health or economic decisions, i.e. low sodium diet, water softening, etc.																	
6	Alkalinity as calcium carbonate (mg/L)	—		—	67	44 - 115	62	48 - 74	175	120 - 212	405	302 - 484	285	266 - 298	334	310 - 362	249	228 - 267
6	Boron (µg/L)	—	100	—	129	ND - 200	116	ND - 200	1210	910- 1520	1323	900 - 2010	400	330 - 470	466	330 - 580	333	290 - 400
6	Total Hardness as calcium carbonate (mg/L)	—		—	92	64 - 144	85	64 - 106	217	106 - 274	532	390 - 672	364	371 - 393	397	363 - 456	322	283 - 365
6	Potassium (mg/L)	—		—	3	2 - 4	2.5	2 - 3	1	1 - 2	3	2 - 4	2	2	2.1	2	2	2
6	Sodium (mg/L)	—		—	59	46-82	58	42 - 75	52	43 - 57	103	81 - 141	52	49 - 53	55	37 - 71	33	30 - 38
	pH (Units)	—		—	8.6	8.4 - 9.0	8.6	8.3 - 9.0	8.1	7.7 - 8.7	7.3	7.2 - 7.6	7.6	7.5 - 7.7	7.4	7.2 - 7.6	7.6	7.4 - 7.8
6	Silica (mg/L)	—		—	10	7 - 14	10	8 - 13	12	8 - 15	29	24 - 33	29	27 - 30	26	24 - 28	28	24 - 31

LEAD AND COPPER RULE						
	Contaminant	No. of Samples Collected	90th Percentile Level Detected	Number of Sites Exceeding AL	Action Level (AL)	PHG
1, 9, 16	Lead (mg/L)	30	0.003	2	0.015	0.0002
1, 9, 10	Copper (mg/L)	30	0.37	None	1.3	0.3

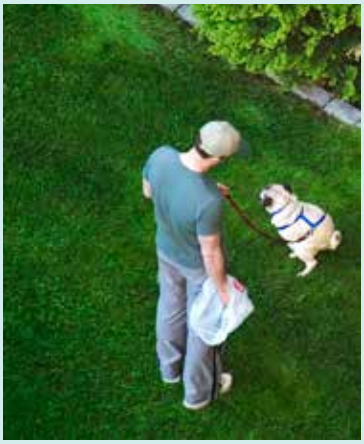
This rule is applicable to DSRSD's direct customers only. Per DDW approval, compliance monitoring is conducted once every three years. Data from June- July 2016 monitoring is summarized on the left.

HELP US PROTECT SOURCE WATER QUALITY

Protecting drinking water sources is everyone's responsibility. You can help in several ways:

Reduce or eliminate fertilizers and pesticides; they are a primary source of pollution in creeks and the San Francisco Bay.

Visit www.Baywise.org for environmentally friendly alternatives.



Pick up after your pets.

Dispose of medication, chemicals, and used motor oil properly. Find disposal and recycling options at www.dsrsd.com/WhatNotToFlush.

QUESTIONS AND ANSWERS ABOUT OUR WATER

How hard is our water?

Naturally occurring calcium and magnesium cause water to be "hard." We measure hardness by the amount of calcium carbonate in the water, expressed either as milligrams per liter (mg/L) or grains per gallon (gpg). Our water is generally moderately hard to very hard, in the range of 76 - 377 mg/L (4 - 22 gpg). Because our water is a variable blend of surface and groundwater, hardness changes throughout the year and by location in the District.

What is being done to improve water hardness?

Zone 7 has a demineralization plant to slow down the buildup of salts and minerals in our groundwater basin and reduce the hardness of groundwater pumped from the Mocho Well Field in western Pleasanton.

Why does the taste of our tap water sometimes change?

Many factors can affect the taste of water. DSRSD's water is a blend of surface water and groundwater. The blend changes throughout the year and these variations can change taste and odor. Chlorine used to disinfect the water supply occasionally produces a chemical smell. Rapid algae growth in the Delta can cause an earthy or musty taste or smell. (These algae "blooms" can occur at any time but are most common from late spring through early fall.) None of these changes in taste or odor affect the safety of the water.

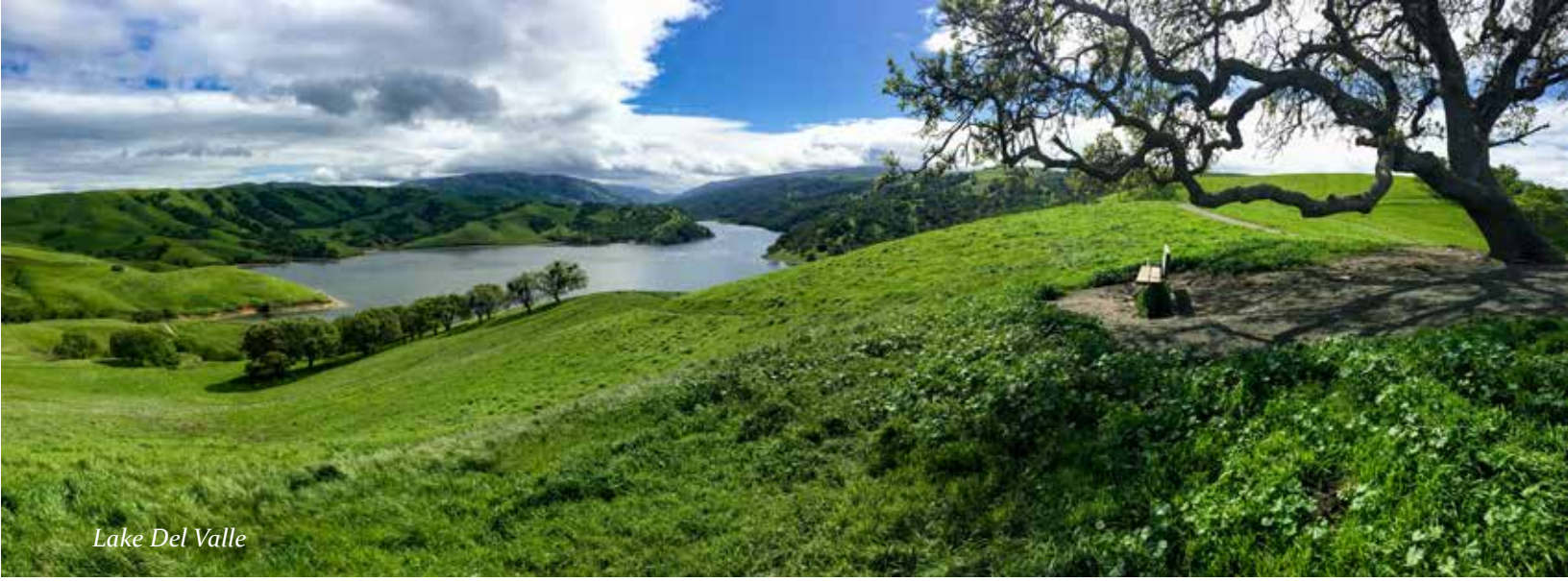
Rotting food in the garbage disposal or bacteria in the P-trap under the drain can also cause a foul smell. To get rid of the odor, fill the sink with hot water, add an ounce of household bleach, and allow the water to drain slowly. If you have a water filter on your faucet or refrigerator, be sure to change it as often as recommended. Otherwise it becomes a breeding ground for bacteria that not only taste or smell foul but can make you sick.

Why does our water taste different than EBMUD's?

East Bay Municipal Utility District (EBMUD) gets most of its water from the Mokelumne River watershed and channels it into an aqueduct east of the Delta. The water never passes through the

Construction is underway on Zone 7 Water Agency's Del Valle Water Treatment Plant Ozonation Project in southern Livermore. The contactor structure is where the ozone will be applied to incoming water during treatment. The project also includes a new ozone generation building, new chemical storage facilities for liquid oxygen (how the ozone is created) and carbon dioxide (used for pH stabilization), a new utility water pump station, and modifications to existing systems.

Photo credit: Zone 7 Water Agency



Lake Del Valle

Delta and that's why it tastes different than DSRSD's water, which is a blend of surface water that has flowed through the Delta and groundwater extracted from local wells.

What is being done to improve water taste and address algae?

During warm months when algae blooms are more likely in the Delta, the Department of Water Resources (DWR) applies copper sulfate, and Zone 7 adds powdered activated carbon to the water to remove some of the taste-and-odor-causing compounds released by algae.

DWR monitors for toxic compounds released by algae, including cyanotoxins produced by some blue-green algae, throughout the State Water Project. In addition, Zone 7 implemented its own algal toxins monitoring in 2016. Blue-green algae is appearing more frequently in water bodies such as the Delta and Lake Del Valle, which supply water to Zone 7.

A study of Zone 7's source water identified ozone as the only effective treatment of such cyanotoxins. Zone 7 is currently making improvements that will add ozone treatment to surface water provided to DSRSD and other Tri-Valley water retailers. In addition to removing algal toxins, ozonation will reduce disinfection by-products and improve the taste and odor of our water more effectively than current treatments. Zone 7 held a groundbreaking in April 2019 for an ozonation project at the Patterson Pass Water Treatment Plant, scheduled to be completed in early 2022. Construction for the Del Valle Water Treatment Plant Ozonation Project is anticipated for completion in spring 2020.

Does our tap water contain fluoride?

Yes. Fluoride occurs naturally and is added to promote strong teeth. Voters in the District's service area approved fluoridation in 1974, and treatment began in 1977. The District complies with the optimal level of 0.7 milligrams of fluoride per liter of water (mg/L) and control range of 0.6 to 1.2 mg/L, as required by federal and state regulations. Information about fluoridation, oral health, and current issues is available from www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html.

What do you advise about water softeners?

The District discourages customers from installing salt-regenerated water softeners because they add excess amounts of salt to our wastewater, which in turn increases the salinity of recycled water used for irrigation. The salt in recycled water seeps back into our groundwater basin where it degrades the quality of our drinking water supply. Zone 7 operates a demineralization plant to remove salt from groundwater, but this is an expensive process. The more softened water that is used in the District, the higher the costs for all customers.

If having soft water is important to you, please consider using an exchange tank service. An exchange tank service company will install portable water softening tanks at your home and replace them on a regular schedule. The company disposes of the brine in the tanks under controlled conditions so it never enters the District's wastewater, recycled water, or groundwater basin.

CONTACT US

We encourage public interest and participation in District decisions affecting water service and other District business. Board meetings occur on the first and third Tuesday of every month at 6 p.m. at our temporary location:

Shannon Community Center
Ambrose Room
11600 Shannon Ave., Dublin.

The public is welcome. For agendas, minutes, and video recordings of past meetings, visit the District website.

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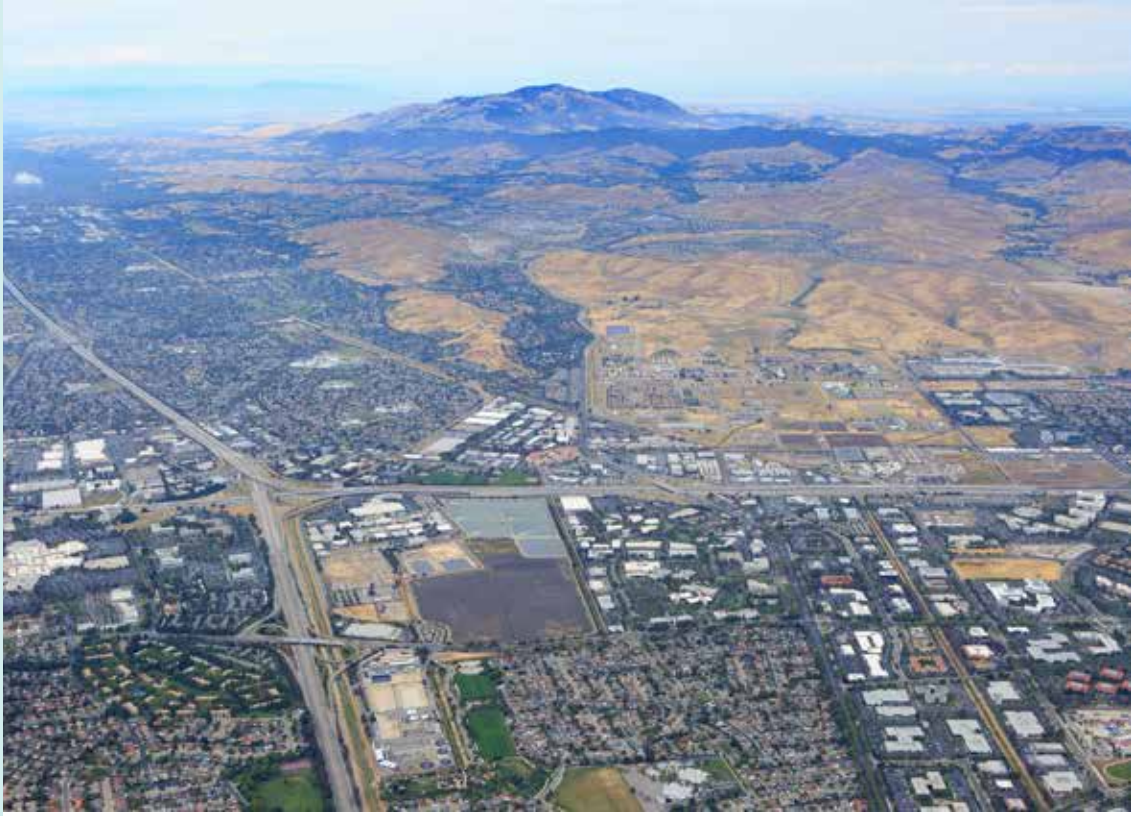

Service Area

A public agency founded in 1953, DSRSD distributes water, recycles water, and collects, treats, and disposes of wastewater for 186,000 people in Dublin, southern San Ramon, Dougherty Valley, and Pleasanton.