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.

April 30, 2022

Photo courtesy of California Department of Water Resources, 2022

This photo was taken on March 17, 2022. As of April 20, 2022, Lake Oroville, a major source of our water supply, is at just 50% of the total capacity.

2021 ANNUAL WATER QUALITY REPORT

A MESSAGE FROM THE GENERAL MANAGER

The Dublin San Ramon Services District's (DSRSD) *2021 Annual Water Quality Report* offers insight into the quality of your drinking water. Based on more than a thousand water samples collected throughout 2021, the report details where our water comes from, what it contains, and how it compares to California and federal drinking water standards. In 2021, our tap water met all U.S. Environmental Protection Agency and state drinking water standards.

DSRSD and Zone 7 Water Agency (Zone 7), the District's wholesale water supplier, protect public health and the environment by monitoring potable (drinking) water for more than 100 contaminants.

Ensuring Supply Reliability

Water is a precious resource, which is made even more apparent in times of drought. As the extremes of climate change grow more severe, water efficiency is more important than ever. California finished the rainy season—typically November through March—with snowpack and reservoir levels well below average.

The District works to develop and maintain a diverse water portfolio and advocate with Zone 7 to ensure regional water supply reliability. DSRSD operates the water recycling plant that converts cleaned wastewater into irrigation water for public spaces such as parks, school grounds, sports fields, golf courses, business parks, and roadway medians. Recycled water is a drought-resistant way the District can maintain local control and reduce the demand for imported water. Investing in water infrastructure is another long-term strategy for realizing a more resilient water supply.

Conserving Water for Future Years

Making water efficiency a California way of life will help us be prepared if the drought continues. Reducing outdoor water use is one of the easiest ways to conserve. Water no more than three non-consecutive days a week, and irrigate yards between 9 p.m. and 6 a.m. to reduce evaporation—especially on the hot, dry days of summer.

DSRSD water customers are eligible to apply for water-saving rebates through Zone 7. Converting lawns to water-efficient landscaping, installing smart irrigation, and upgrading to high-efficiency washers are all ways to make a difference. Learn how to apply at www.dsrsd.com/rebates. Thank you for your ongoing water conservation efforts.

Dan McIntyre
General Manager

SOURCES OF OUR POTABLE WATER

DSRSD purchases all of its potable (drinking) water from Zone 7. This water comes from three sources: About 40% is imported surface water from the California State Water Project and local rain runoff stored in Del Valle Reservoir, and about 60% is groundwater from local wells.

Most of our water supply starts in the Sierra Nevada as rain and snow melt. 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's Del Valle and Patterson Pass treatment plants. When State Water Project allocations are restricted, more of our water comes from local sources.

The California Department of Water Resources Snow Surveys and Water Supply Forecasting Unit conducts the fourth media snow survey on April 1, 2022. At an elevation of 6,800 feet in the Sierra Nevada Mountains, most of the snow had melted at Phillips Station by this date. Since 1941, the average April 1 snow depth is 66.5 inches at this location.

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 California State Water Resource Control Board (SWRCB) 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: https://www.waterboards.ca.gov/drinking_water/safedrinkingwaterplan/docs/ExecSumPlan_Report.pdf.

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 (chlorine and ammonia) 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.

Source Water Assessment

Zone 7 Water Agency draws from a diverse portfolio of drinking water sources, including local and imported surface water as well as groundwater from wells. The agency carefully monitors all these sources to ensure their continued quality and to protect the safety of our water supply.

A source water assessment is conducted on each groundwater well as required by the California State Water Resources Control Board. Sanitary surveys for surface water supplies are conducted every five years.

The latest sanitary survey for the California Delta and the State Water Project is scheduled for completion by summer 2022.

Protecting our source water is an important part of providing safe drinking water to the public that meets the stringent Zone 7 water quality goals. By monitoring for potential contaminants, the agency can proactively address threats to water quality. For example, groundwater sources can be vulnerable to releases from chemical/petroleum pipelines, leaking tanks, groundwater contamination plumes, septic tanks, and wastewater collection systems. Surface water can become contaminated as it travels through the Sacramento and San Joaquin watersheds and the Delta. After leaving the Delta, water is transported to Zone 7 via the South Bay Aqueduct. The aqueduct water quality can become polluted from local cattle grazing, wildfires, wildlife activities, and recreational activities in the watersheds of the Bethany and Del Valle reservoirs. In order to deliver high-quality water, Zone 7 proactively participates in a number of activities to improve water supply reliability and the water quality of the South Bay Aqueduct.

Copies of any public outreach materials, source water assessment reports or sanitary surveys are available by calling Gurpal Deol at (925) 447-0533.

2020 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 2020. All water supplied to customers during 2020 met the regulatory standards set by the state and federal governments. Additional unregulated parameters, such as sodium 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 associated with service lines (pipes 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 were allowed to contain lead. The District's next lead and copper sampling event will be in 2022; the last was conducted 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 three homes were at or above the regulatory action level. While the District was not required to take any action, staff advised the homeowners about the advantages of replacing old plumbing and fixtures with new lead-free materials. Minimize the potential for lead exposure when water has been sitting in pipes for several hours by flushing the tap for 30 seconds to two minutes before using the water for drinking or cooking. (Please save flushed water for another purpose, such as watering plants.) 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 2017, the California State Water Resources Control Board, Division of Drinking Water required water systems to test for lead in schools if school districts requested to be tested. Then the California legislature passed Assembly Bill 746 requiring water systems to test for lead in drinking water at all public K-12 schools by July 1, 2019. The testing involves sampling water at taps throughout the school—drinking fountains and kitchen facilities.

DSRSD provides water to 20 public and 5 private K-12 schools in its service area. By the end of 2018, the District had tested all public schools and one private school (St. Raymond School was the only private school that requested lead testing). All tests were below the action level.

Lead sampling information and results can be found at www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html.

Revised Total Coliform Rule

This Annual Water Quality Report reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

ENSURING A SAFE WATER SUPPLY IN THE AGE OF FOREVER CHEMICALS

With concern growing about the presence of "forever chemicals" known as PFAS in some water supplies, Zone 7 continues to actively monitor for PFAS in its water supplies and has taken actions to ensure delivering safe drinking water to its customers.

What are PFAS?

Per- and Polyfluoroalkyl substances (PFAS) are a large group of man-made substances that have been extensively used since the 1940s in common consumer products designed to be waterproof, stain-resistant, or nonstick. In addition, they have been used in fire-retarding foam and various industrial processes. PFAS are unregulated contaminants of emerging concern in drinking water due to a host of health impacts and the tendency of PFAS to accumulate in groundwater.

PFAS Regulatory Update

Over the past several years, the science on PFAS and impacts to the environment and public health have prompted regulatory actions. The U.S. Environmental Protection Agency has a 70 nanograms per liter (ng/L) combined Lifetime Health Advisory for perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) and is moving forward with regulatory development for these two PFAS by 2024. The California State Water Resources Control Board has issued drinking water advisory levels for three PFAS (including PFOS and PFOA) and is pursuing advisory levels for six additional PFAS. The State is also in the process of developing Public Health Goals (PHGs) for PFOA and PFOS by the end of 2022, which is the first step in establishing any drinking water standard.

In 2021, Zone 7 did not detect any PFAS in its treated surface water supplies that made up the majority of the total water delivered to its customers. Although Zone 7 did detect some PFAS in some groundwater sources, the sources were blended and/or treated below the applicable State response level. No PFAS were detected in Zone 7's Hopyard Wells. All water delivered to customers is below the state response level for PFAS.

Zone 7 completed a PFAS Treatment Feasibility Study in 2020 and is moving forward with the design of a new PFAS treatment facility at the Chain-of-Lakes wellfield to ensure compliance with anticipated new State and federal regulations. Zone 7 also completed a PFAS Potential Source Investigation Study in 2020 to assist in characterizing the extent of PFAS across the Tri-Valley's groundwater basin and to identify potential sources of contamination. At the time of publication, there is no indication of a single source for this contamination. Zone 7 is working on developing a groundwater contaminant transport model to further investigate how the PFAS plume could be moving in the groundwater basin under various operating scenarios and PFAS management tools.

For more details about PFAS in Zone 7's water supply, visit www.zone7water.com/pfas-information.

State Regulatory Advisory Levels for PFAS (ng/L)*

PFAS	Notification Level	Response Level
Perfluorooctanesulfonic acid (PFOS)	6.5	40
Perfluorooctanoic acid (PFOA)	5.1	10
Perfluorobutanesulfonic acid (PFBS)	500	5,000

* When a contaminant is found at concentrations greater than its advisory level, certain notification requirements and recommendations apply.

Water Supply Sources	PFAS*** (ng/L)									
	PFOS		PFOA		PFBS		PFHxS		PFHxA	
	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
Mocho Wellfield										
Mocho Well 2 (before treatment)*	32	31 - 33	4	4 - 4	6	6 - 6	29	28 - 29	5	4 - 5
Mocho Well 3 (before treatment)*	49	45 - 56	6	5 - 6	8	8 - 8	37	34 - 42	7	6 - 8
Mocho Well 4	14	12 - 16	ND	ND - 4	5	4 - 5	15	13 - 16	ND	ND - 4
Blended/Treated Mocho Water	29	21 - 33	ND	ND - 4	6	5 -6	25	21 - 28	5	4 - 5
Chain of Lakes (COL) Wellfield										
COL Well 1 (before blending)**	38	27 - 46	5	4 - 6	6	5 - 8	31	21 - 39	5	ND - 7
COL Well 2	18	15 - 22	ND	ND - 4	ND	ND - 5	17	14 - 20	ND	ND - 5
COL Well 5 (before blending)**	20	18 - 20	ND	ND	ND	ND	14	12 - 16	ND	ND
Blended COL Water	22	17 - 29	ND	ND - 4	4	ND - 5	19	15 - 25	ND	ND - 5
Stoneridge Well	16	15 - 18	ND	ND	5	5 - 6	18	18 - 19	ND	ND - 4
Hopyard Wellfield (Well 6 and 9)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Treated Surface Water	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES: ng/L = nanograms per liter; ND indicates no detection at or above the Consumer Confidence Report Detection Level (CCRDL) which is 4 ng/L for the above analytes; ND or value in range column indicates that more than one sample was collected.

* Mocho Well 2 and/or 3 was blended/treated at the Mocho Groundwater Demineralization Plant (MGDP) whenever the well was online; All Mocho wells can also be treated at the MGDP.

** COL Well 1 and/or 5 was blended with other COL well water whenever it was online.

*** Eighteen analytes were tested per EPA Method 537.1; Only detected analytes above the CCRDL are shown on the table; PFOS = perfluoro-octane sulfonic acid, PFOA = perfluoro-octanoic acid, PFBS = perfluorobutane sulfonic acid, PFHxA = perfluorohexanoic acid, PFHxS = perfluorohexane sulfonic acid.

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 2021 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

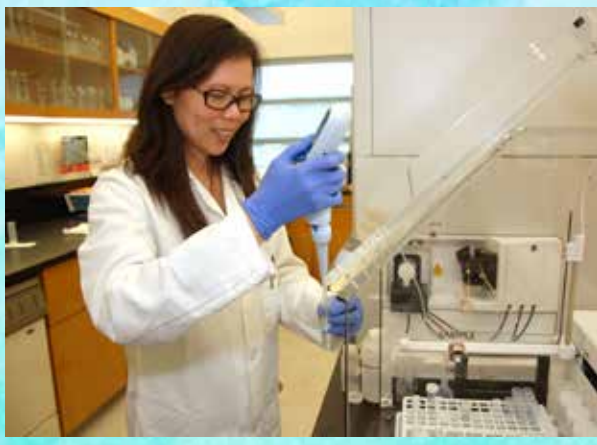
Aluminum
Arsenic
Antimony
Asbestos
Beryllium
Cadmium
Cyanide
Mercury
Nickel
Nitrite (as nitrogen)
Perchlorate
Thallium
Zinc

RADIONUCLIDES

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

Secondary Drinking Water Standards

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



Senior Environmental Chemist Connie Sanchez prepares to load a sample for metals analysis to the Inductively Coupled Plasma-Mass Spectrometer, an instrument that detects metals such as copper and lead at the part-per-billion level.

2021 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: A measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of the incident light.

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. Discharges from industrial manufacturers
16. Discharge from steel and pulp mills and chrome plating
17. Seawater influence
18. Industrial wastes
19. Various natural and man-made sources

LEAD AND COPPER RULE

This rule is applicable to DSRSD's direct customers only. Per Division of Drinking Water approval, compliance monitoring is conducted once every three years. Data from September 2019 monitoring is summarized below:

Sources	Contaminant	No. of Samples Collected	90th Percentile Level Detected	Number of Sites Exceeding AL	Action Level (AL)	PHG
1, 9, 15	Lead (µg/L)	65	10	3	15	0.2
1, 9, 10	Copper (mg/L)	65	0.29	None	1.3	0.3

UNREGULATED CONTAMINANT MONITORING RULE 4 (UCMR4)

U. S. EPA's fourth Unregulated Contaminant Monitoring Rule (UCMR4) requires monitoring of 30 chemical contaminants between 2018 and 2020. Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated. The detected contaminants are from 2019.

Sources	Unregulated Contaminants (units)	MCL	MRL	Average	Range
4	Haloacetic Acids (five) (HAA_5) µg/L	No Standard	NA	3.2	<0.2 - 13
4	Haloacetic Acids (six) (HAA_6) Brominated µg/L	No Standard	NA	5.6	<0.2 - 25
4	Haloacetic Acids (nine) (HAA_9) µg/L	No Standard	NA	7.6	<0.2 - 31
6	Manganese µg/L (Only one sample was detected above the MRL)	No Standard	0.40	0.45	NA

January - December 2021 Water Quality Data, Contaminants Detected in the Water Supply

Primary and Secondary Drinking Water Standards, Established by the California State Water Resource Control Board (SWRCB), 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:** 0.8%	
					Highest Locational Running Annual Average	**Range of All Samples**
4	Total trihalomethanes (TTHMs), (µg/L)	80	1**	***	25	ND - 45
4	Haloacetic acids (five) (HAA_5), (µg/L)	60	1**	NA	7.8	ND - 7.9
5	Chloramines as Chlorine (mg/L)	Maximum Residual Disinfectant Level = 4.0		[4]	**System wide Running Annual Average:** 2.0	0.02 - 3.8
1, 7, 14	Fluoride (mg/L)	2.0	0.1	1	**System wide Average:** 0.71	0.13 - 0.91

* Total Coliform MCL is applicable to data from 01/01- 06/30.

** TTHMs each component DLR is 1 µg/L. HAAs each component DLR is 1 µg/L except Monochloroacetic acid that has DLR of 2 µg/L.

*** PHG for Chloroform is 0.4 µg/L. PHG for Bromoform is 0.5 µg/L. PHG for Bromodichloromethane is 0.06 µg/L. PHG for Dibromochloromethane is 0.1 µg/L.

WATER SUPPLY SOURCES								
Sources	Contaminants (units)	PRIMARY DRINKING WATER STANDARDS			Surface Water		Groundwater	
		MCL	DLR (MRL)	PHG, (MCLG), [MRDLG]				
11	Turbidity (NTU)	TT = 1 NTU Maximum		NA	Highest Level Found = 0.20 NTU		NA	
		TT = 95% of samples ≤ 0.3 NTU		NA	% of samples ≤ 0.3 NTU = 100		NA	
19	Total Organic Carbon	TT = Quarterly RAA Removal Ratio ≥ 1.0		NA	Lowest Quarterly RAA Ratio = 1.3		NA	
	Inorganic Chemicals				**Avg.**	**Range**	**Avg.**	**Range**
1, 13	Barium (µg/L)	1000	100	2000	ND	ND	181	ND - 369
4	Bromate, µg/L	Quarterly RAA = 10	5	0.1	Highest Quarterly RAA = 8	ND - 18	NA	NA
1, 16	Chromium Total (µg/L)	50	10	(100)	ND	ND	ND	ND- 12
1, 12	Selenium (µg/L)	50	5	30	ND	ND	ND	ND - 8
1, 7, 14	Fluoride (mg/L)	2	0.1	1	ND	ND - 0.2	ND	ND - 0.1
1, 3	Nitrate as Nitrogen (mg/L)	10	0.4	10	ND	ND - 0.9	2.9	1.1 - 4.8
	Radionuclides							
1	Gross Alpha particle activity (pCi/L)****	15	3	(0)	3	3	3	ND - 6
1	Uranium (pCi/L)	20	1	0.43	ND	ND	1.2	ND - 4.1
	SECONDARY DRINKING WATER STANDARDS, established by State Water Board							
2, 17	Conductivity (µS/cm)	1600		--	710	569 - 849	941	653 - 1244
6, 17	Chloride (mg/L)	500		--	130	87 - 177	97	47-152
6, 18	Iron (µg/L)	300	(100)	--	ND	ND	ND	ND - 373
6, 18	Sulfate (mg/L)	500	0.5	--	53	23 - 92	62	34 - 92
6	Total Dissolved Solids (mg/L)	1000		--	396	323 - 475	569	395 - 782
11	Turbidity (NTU)	5	(0.05)	--	ND	ND - 0.1	ND	ND
	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)	—		—	101	77 - 126	298	228 - 372
6	Boron (µg/L)	—	100	—	240	160 - 500	652	280 - 1230
6	Total Hardness as calcium carbonate (mg/L)	—		—	127	96 - 168	356	278 - 452
6	Potassium (mg/L)	—		—	3.9	3.3 - 4.6	2.0	1.6 - 3.0
6	Sodium (mg/L)	—		—	97	77 - 113	65	30 - 115
	pH (units)	—		—	8.5	8.2 - 8.9	7.5	7.3 - 7.6
6	Silica (mg/L)	—		—	10	5 - 14	26	24 - 28

**** Gross alpha data is from 2017

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.

Zone 7's Del Valle Water Treatment Plant in southern Livermore.

QUESTIONS AND ANSWERS ABOUT OUR WATER

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 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, ozona-

Photo courtesy of Zone 7 Water Agency.

tion will reduce disinfection by-products and improve the taste and odor of our water more effectively than current treatments.

Zone 7 completed upgrading and expanding the Patterson Pass Water Treatment Plant to use a powerful disinfectant called ozone. Ozonation improves overall water quality by destroying organic matter, reducing the formation of chlorine by-products, and treating other contaminants of emerging concern. The upgrades increase plant capacity from 12 million to 24 million gallons a day. Learn more: https://www.zone7water.com/post/patterson-pass-water-treatment-plant.

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.

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 199-400 mg/L or 12-23 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.

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 eco-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.

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 district office:

DSRSD Boardroom
7051 Dublin Blvd.
Dublin, CA

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

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www.dsrsd.com

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Photo courtesy of California Department of Water Resources, 2019.

The Del Valle Reservoir south of Livermore stores local rain runoff and is part of the Tri-Valley's surface water supply.

Service Area

A public agency founded in 1953, DSRSD distributes water, recycles water, and collects, treats, and disposes of wastewater for 188,000 people in Dublin, southern San Ramon, Dougherty Valley, and Pleasanton.