

**Three Valleys Municipal Water District  
2023 WATER QUALITY REPORT TO TVMWD MEMBER AGENCIES**

**WEYMOUTH** refers to the Metropolitan Water District's Weymouth Water Treatment Plant in the city of La Verne.

**MIRAMAR** refers to the Three Valleys Municipal Water District's Miramar Water Treatment Plant in the city of Claremont.

	WEYMOUTH EFFLUENT	MIRAMAR EFFLUENT	MIRAMAR GROUNDWATER	REGULATORY STANDARDS			Major Sources in Drinking Water
	Range/Average	Range/Average	Range/Average	State MCL	PHG	State DLR/CCRDL, (RL)	
<b>SOURCE WATER</b>							
% of State Project Water	0-100	86.57		NA	NA	NA	
% of Groundwater			13.43				

**PRIMARY STANDARDS - Mandatory Health-Related Standards**

<b>CLARITY</b>								
Combined Filter Effluent (CFE) Turbidity (a)	NTU % ≤ 0.3	<b>0.06 (highest)</b> <b>100%</b>	<b>100%</b>	<b>100%</b>	TT	NA	NA	Soil runoff
<b>MICROBIOLOGICAL (b)</b>								
Total Coliform Bacteria (c)	% Positive	<b>0 - 0.3%</b> distribution system-wide	<b>0-1.49%</b> distribution system-wide	<b>0%</b>	TT	<b>MCLG = 0</b>	NA	Naturally present in the environment
<i>Escherichia coli</i> ( <i>E. coli</i> ) (c,d)	Number	<b>0%</b> distribution system-wide	<b>0%</b> distribution system-wide	<b>0%</b>	1	<b>MCLG = 0</b>	NA	Human and animal fecal waste
Heterotrophic Plate Count (e)	CFU/ mL	<b>ND</b>	<b>ND</b>	<b>ND</b>	TT	NA	(1)	Naturally present in the environment
<i>Cryptosporidium</i>	Oocyst 200 L	<b>ND</b>	<b>ND</b>	<b>ND</b>	TT	<b>MCLG = 0</b>	(1)	Human and animal fecal waste
<i>Giardia</i>	Cysts 200 L	<b>ND</b>	<b>ND</b>	<b>ND</b>	TT	<b>MCLG = 0</b>	(1)	Human and animal fecal waste

<b>ORGANIC CHEMICALS</b>								
<b>Synthetic Organic Compounds (f)</b>								
		<i>Units</i>						
1,2,3-Trichloropropane (1,2,3-TCP)	ppt	<b>ND</b>	<b>ND</b>	<b>ND</b>	5	0.7	5	Discharge from industrial and agricultural factories; byproducts of producing other compounds and pesticides, leaching from hazardous waste site
2,4,5-TP (Silvex)	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	50	3	1	Residue of banned herbicide
2,4-D	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	70	20	10	Runoff from herbicide used on row crops, range land, lawns and aquatic weeds
Acrylamide	ppm	<b>TT</b>	<b>NA</b>	<b>NA</b>	TT	<b>MCLG = 0</b>	NA	Water treatment chemical impurities
Alachlor	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	2	4	1	Runoff from herbicide used on row crops
Atrazine	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	1	0.15	0.5	Runoff from herbicide used on row crops and along railroad and highways rights-of-way
Bentazon	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	18	200	2	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses
Benzo(a)pyrene	ppt	<b>ND</b>	<b>ND</b>	<b>ND</b>	200	7	100	Leaching from linings of water storage tanks and distribution mains
Carbofuran	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	18	0.7	5	Leaching of soil fumigant used on rice, alfalfa and grapes vineyards
Chlordane	ppt	<b>ND</b>	<b>ND</b>	<b>ND</b>	100	30	100	Residue of banned insecticide
Dalapon	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	200	790	10	Runoff from herbicide used on rights of way, crops and landscape maintenance
Di(2-ethylhexyl) adipate	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	400	200	5	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	4	12	3	Discharge from rubber and chemical factories; inert ingredient in pesticides
Dibromochloropropane (DBCP)	ppt	<b>ND</b>	<b>ND</b>	<b>ND</b>	200	3	10	Banned nematicide that may still be present in soils due to runoff/leaching
Dinoseb	ppb	<b>ND</b>	<b>ND</b>	<b>ND</b>	7	14	2	Runoff from herbicide used on soybeans, vegetables and fruits
Dioxin (2,3,7,8-TCDD)	ppq	<b>ND</b>	<b>ND</b>	<b>ND</b>	30	0.05	5	Waste incineration emissions, chemical factory discharge

Diquat	ppb	ND	ND	ND	20	6	4	Runoff from herbicide used for terrestrial and aquatic weeds
Endothall	ppb	ND	ND	ND	100	94	45	Runoff from herbicide used for terrestrial and aquatic weeds
Endrin	ppb	ND	ND	ND	2	0.3	0.1	Residue of banned insecticide and rodenticide
Epichlorohydrin	ppm	ND	NA	NA	TT	MCLG = 0	NA	Water treatment chemical impurities
Ethylene dibromide (EDB)	ppt	ND	ND	ND	50	10	20	Discharge from petroleum refineries; underground gas tank leaks, banned nematocide that maybe still present in soils due to runoff and leaching
Glyphosate	ppb	ND	ND	ND	700	900	25	Runoff from herbicide use
Heptachlor	ppt	ND	ND	ND	10	8	10	Residue of banned insecticide
Heptachlor Epoxide	ppt	ND	ND	ND	10	6	10	Breakdown product of heptachlor
Hexachlorobenzene	ppb	ND	ND	ND	1	0.03	0.5	Discharge from metal refineries & agricultural factories; wastewater chlorination reaction by-product
Hexachlorocyclopentadiene	ppb	ND	ND	ND	50	2	1	Discharge from chemical factories
Lindane	ppt	ND	ND	ND	200	32	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	ppb	ND	ND	ND	30	0.09	10	Runoff/leaching from insecticide uses
Molinate (Ordram)	ppb	ND	ND	ND	20	1	2	Runoff/leaching from herbicide used on rice
Oxamyl (Vydate)	ppb	ND	ND	ND	50	26	20	Runoff/leaching from insecticide uses
Pentachlorophenol (PCP)	ppb	ND	ND	ND	1	0.3	0.2	Discharge from wood preserving factories, other insecticidal and herbicidal uses
Picloram	ppb	ND	ND	ND	500	166	1	Herbicide runoff
Polychlorinated Biphenyls (PCBs)	ppt	ND	ND	ND	500	90	500	Runoff from landfills; discharge of waste chemicals
Simazine	ppb	ND	ND	ND	4	4	1	Herbicide runoff
Thiobencarb	ppb	ND	ND	ND	70	42	1	Runoff/leaching from herbicide used on rice
Toxaphene	ppb	ND	ND	ND	3	0.03	1	Runoff/leaching from insecticide used on cotton and cattle

**Volatile Organic Chemicals**

1,1,1-Trichloroethane	ppb	ND	ND	ND	200	1000	0.5	Discharge from metal degreasing sites; manufacture of food wrappings
1,1,2,2-Tetrachloroethane	ppb	ND	ND	ND	1	0.1	0.5	Discharge from industrial, agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ppm	ND	ND	ND	1.2	4	0.01	Discharge from metal degreasing sites and other factories; dry-cleaning solvent; refrigerant
1,1,2-Trichloroethane	ppb	ND	ND	ND	5	0.3	0.5	Discharge from industrial chemical factories
1,1-Dichloroethane	ppb	ND	ND	ND	5	3	0.5	Extraction & degreasing solvent; fumigant
1,1-Dichloroethylene	ppb	ND	ND	ND	6	10	0.5	Discharge from industrial chemical factories
1,2,4-Trichlorobenzene	ppb	ND	ND	ND	5	5	0.5	Discharge from textile-finishing factories
1,2-Dichlorobenzene	ppb	ND	ND	ND	600	600	0.5	Discharge from industrial chemical factories
1,2-Dichloroethane	ppt	ND	ND	ND	500	400	500	Discharge from industrial chemical factories
1,2-Dichloropropane	ppb	ND	ND	ND	5	0.5	0.5	Discharge from industrial chemical factories; primary component of some fumigants
1,3-Dichloropropene	ppb	ND	ND	ND	500	200	500	Runoff/leaching from nematocide used on croplands
1,4-Dichlorobenzene	ppb	ND	ND	ND	5	6	0.5	Discharge from industrial chemical factories

Benzene	ppb	ND	ND	ND	1	0.15	0.5	Plastic factory discharge; gas tanks and landfill leaching
Carbon Tetrachloride	ppt	ND	ND	ND	500	100	500	Discharge from chemical plants and other industrial activities
<i>cis</i> -1,2-Dichloroethylene	ppb	ND	ND	ND	6	100	0.5	Industrial chemical factory discharge; biodegradation byproduct of TCE/PCE groundwater contamination
Dichloromethane (methylene chloride)	ppb	ND	ND	ND	5	4	0.5	Discharge from pharmaceutical and chemical factories
Ethylbenzene	ppb	ND	ND	ND	300	300	0.5	Discharge from petroleum refineries; industrial chemical factories
Methyl- <i>tert</i> -butyl-ether (MTBE)	ppb	ND	ND	ND	13	13	3	Gasoline discharge from watercraft engines
Monochlorobenzene	ppb	ND	ND	ND	70	70	0.5	Discharge from industrial, agricultural chemical factories and dry-cleaning facilities
Styrene	ppb	ND	ND	ND	100	0.5	0.5	Rubber and plastics factories discharge, landfill leaching
Tetrachloroethylene (PCE)	ppb	ND	ND	ND	5	0.06	0.5	Discharge from factories, dry cleaners and auto shops
Toluene	ppb	ND	ND	ND	150	150	0.5	Discharge from petroleum and chemical refineries
<i>trans</i> -1,2-Dichloroethylene	ppb	ND	ND	ND	10	60	0.5	Industrial chemical factory discharge; biodegradation byproduct of TCE/PCE groundwater contamination
Trichloroethylene (TCE)	ppb	ND	ND	ND	5	1.7	0.5	Discharge from metal degreasing sites and other factories
Trichlorofluoromethane (Freon 11)	ppb	ND	ND	ND	150	1300	5	Discharge from industrial factories; degreasing solvent; propellant
Vinyl chloride	ppt	ND	ND	ND	500	50	500	Leaching from PVC piping; plastics factory discharge; biodegradation byproduct of TCE/PCE biodegradation
Xylenes	ppm	ND	ND	ND	1.75	1.8	0.0005	Discharge from petroleum and chemical refineries; fuel solvent

**INORGANIC CHEMICALS**

Aluminum (g)	ppb	ND - 71 highest RAA 115	ND	ND	1000	600	50	Residue from water treatment process; erosion of natural deposits
Antimony	ppb	ND	ND	ND	6	1	6	Petroleum refinery discharges, fire retardants, solder, electronics
Arsenic	ppb	ND	2.0-3.1/2.55	ND	10	0.004	2	Erosion of natural deposits; glass & electronics production wastes
Asbestos (h)	MFL	ND	ND	ND	7	7	0.2	Internal corrosion of asbestos cement pipes; erosion of natural deposits
Barium	ppb	107	ND	ND	1000	2000	100	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium	ppb	ND	ND	ND	4	1	1	Discharge from metal refineries; aerospace and defense industries
Cadmium	ppb	ND	ND	ND	5	0.04	1	Internal corrosion of galvanized pipes; discharge from electroplating industrial factories and metal refineries, runoff from waste batteries and paints, natural deposits erosion
Chromium	ppb	ND	ND	ND	50	MCLG = 100	10	Discharge from steel and pulp mills; erosion of natural deposits
Copper (i)	ppm	ND	ND	ND	AL=1.3	0.3	0.05	Internal corrosion of household pipes; erosion of natural deposits
Cyanide	ppb	ND	ND	ND	150	150	100	Discharge from steel/metal, plastic and fertilizer factories
Fluoride (j)	ppm	0.6-0.8/0.7	0.18 (naturally occurring)	0.34 (naturally occurring)	2	1	0.1	Erosion of natural deposits; water additive that promotes strong teeth
Lead (i)	ppb	ND	ND	ND	AL=15	0.2	5	Internal corrosion of household pipes; erosion of natural deposits
Mercury	ppb	ND	ND	ND	2	1.2	1	Erosion of natural deposits; discharge from factories; runoff from landfills
Nickel	ppb	ND	ND	ND	100	12	10	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrogen)	ppm	0.8	0.53-0.7/.64	2.0-4.8/2.9	10	10	0.4	Runoff & leaching from fertilizer use; septic tank and sewage; erosion of natural deposits
Nitrite (as Nitrogen)	ppm	ND	ND	ND	1	1	0.4	Runoff & leaching from fertilizer use; septic tank and sewage; erosion of natural deposits
Perchlorate	ppb	ND	ND	ND	6	1	2	Industrial waste discharge

Selenium	ppb	ND	ND	ND	50	30	5	Refineries, mines and chemical waste discharge; runoff from livestock lots
Thallium	ppb	ND	ND	ND	2	0.1	1	Leaching from ore-processing sites; factory discharge

**RADIOLOGICALS**

Gross Alpha Particle Activity	pCi/L	ND	ND	ND (2016) due 2028	15	(0)	3	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	ND - 6/ND	6.86	NR	50	(0)	4	Decay of natural and man-made deposits
Combined Radium Radium 226 + 228	pCi/L	ND	2.58	0.148 (2016) due 2028	5	MCLG=0	NA	Erosion of natural deposits
Radium 226	pCi/L	ND	ND	ND (2016) due 2028	NA	0.05	1	Erosion of natural deposits
Radium 228	pCi/L	ND	2.01	ND (2016) due 2028	NA	0.019	1	Erosion of natural deposits
Strontium-90	pCi/L	ND	ND	NR	8	0.35	2	Decay of natural and man-made deposits
Tritium	pCi/L	ND	ND	NR	20,000	400	1,000	Decay of natural and man-made deposits
Uranium	pCi/L	ND - 3/ND	ND	1.4 - 2.1 / 1.92 due 2028	20	0.43	1	Erosion of natural deposits

**DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS (k)**

Total Trihalomethanes (TTHM)	ppb	16 - 74/50 Distribution system-wide	41-45.5/43.7 Distribution system-wide	NR	80	NA	1	By-product of drinking water disinfection
Sum of Five Haloacetic Acids (HAA5)	ppb	ND - 33/19 Distribution system-wide	14/20.20/17.8 Distribution system-wide	NR	60	NA	1	By-product of drinking water disinfection
Total Chlorine Residual	ppm	1.2 - 3.0/2.5 highest RAA Distribution system-wide	2.5/3.42/2.81 highest RAA Distribution system-wide	NR	[4.0]	[4.0]	(0.05)	Drinking water disinfectant added for treatment
Bromate (l)	ppb	ND - 12/2.4 highest RAA	NR	NR	10	0.1	1.0	Byproduct of drinking water ozonation
Total Organic Carbon (TOC)	ppm	1.8 - 3.0/2.4 highest RAA	0.76-1.02/.89 highest RAA	NR	TT	NA	0.30	Various natural and man-made sources; TOC as a medium for the formation of disinfection byproducts

**SECONDARY STANDARDS - Aesthetic Standards**

Aluminum (g)		ND - 71/115	ND	ND	200	600	50	Residue from water treatment processes; natural deposits erosion
Chloride	ppm	34 - 55/44	58	28	500	NA	(2)	Runoff/leaching from natural deposits; seawater influence
Color	units	1	ND	ND	15	NA	(1)	Naturally occurring organic materials
Copper (i)	ppm	ND	ND	ND	1	0.3	0.05	Internal corrosion of household pipes; natural deposits erosion; wood preservatives leaching
Foaming Agents-Methylene Blue Active Substan	ppb	ND	ND	ND	500	NA	(50)	Municipal and industrial waste discharges
Iron	ppb	ND	ND	ND	300	NA	100	Leaching from natural deposits; industrial wastes
Manganese	ppb	ND	ND	ND	50	NL=500	(5)	Leaching from natural deposits
MTBE	ppb	ND	ND	ND	5	13	3	Gasoline discharges from watercraft engines
Odor Threshold	TON	2	1	1	3	NA	1	Naturally occurring organic materials
Silver	ppb	ND	ND	ND	100	NA	10	Industrial discharges
Specific Conductance	µS/cm	357 - 507/432	270-430/350	600	1,600	NA	NA	Substances that form ions when in water; seawater influence
Sulfate	ppm	51 - 72/62	41	39	500	NA	0.5	Runoff/leaching from natural deposits; industrial wastes
Thiobencarb	ppb	ND	ND	ND	1	42	1	Runoff/leaching from rice herbicide
Total Dissolved Solids (TDS) (m)	ppm	209 - 296/252	100	280-350/315	1,000	NA	(2)	Runoff/leaching from natural deposits; seawater influence

Turbidity (a)	NTU	ND	ND	ND	5	NA	0.1	Soil runoff
Zinc	ppm	ND	ND	ND	5.0	NA	0.05	Runoff/leaching from natural deposits; industrial wastes

### OTHER PARAMETERS

#### General Minerals

Alkalinity (as CaCO <sub>3</sub> )	ppm	65-78/72	59-71/66	170-220/195	NA	NA	(1)	Measure of water quality
Calcium	ppm	20 - 28/24	17-32/24.5	57-89/73	NA	NA	(0.1)	Measure of water quality
Hardness (as CaCO <sub>3</sub> )	ppm	81 - 122/102	74	180-290/235	NA	NA	(1)	Measure of water quality
Magnesium	ppm	7.8 - 13/10	4.5	9.4-16/12.7	NA	NA	(0.01)	Measure of water quality
Potassium	ppm	2.6 - 3.0 /2.8	1.9	1.5-2.1/1.8	NA	NA	(0.2)	Measure of water quality
Sodium	ppm	39 - 55/47	56	21-25/23	NA	NA	(1)	Measure of water quality

#### Unregulated Contaminants

Boron	ppb	140	100	150-170/160	NL=1,000	NA	100	Runoff/leaching from natural deposits; industrial wastes
Chlorate	ppb	19	ND	ND	NL=800	NA	(10)	By-product of drinking water chlorination; industrial processes
Chromium VI	ppb	ND	ND	ND	NA	0.02	1	Runoff/leaching from natural deposits; discharge from industrial waste factories
Lithium	ppb	ND - 13/ND	NR	ND	NA	NA	-10	Naturally occurring, used in electrochemical cells, batteries, and organic synthesis and pharmaceuticals
Vanadium	ppb	ND	ND	4.4-4.9/4.6	NL=50	NA	3	Naturally occurring; industrial waste discharge
Dichlorodifluoromethane (Freon 12)	ppb	ND	ND	ND	NL=1,000	NA	0.5	Industrial waste discharge
Ethyl-tert-butyl-ether (ETBE)	ppb	ND	ND	ND	NA	NA	3	Used as gasoline additive
tert-Amyl-methyl-ether (TAME)	ppb	ND	ND	ND	NA	NA	3	Used as gasoline additive
tert-Butyl alcohol (TBA)	ppb	ND	ND	ND	NL=12	NA	2	MTBE breakdown product; used as gasoline additive

#### Nitrosamine Compounds

N-Nitrosodimethylamine (NDMA)	ppt	ND - 5.3/2.2	ND	NR	NL=10	3	(2)	Byproducts of drinking water chloramination: industrial processes
N-Nitrosodiethylamine (NDEA)	ppt	ND	NR	NR	NL=10	NA	(2)	
N-itosodi-n-propylamine (NDPA)	ppt	ND	NR	NR	NL=10	NA	(2)	
N-Nitrosomethylethylamine (NMEA)	ppt	ND	NR	NR	NA	NA	(2)	
N-Nirosodi-n-butylamine (NDBA)	ppt	ND	NR	NR	NA	NA	(2)	
N-Nitrosopyroline (NPYR)	ppt	ND	NR	NR	NA	NA	(2)	
N-Nitrosopipidine (NPIP)	ppt	ND	NR	NR	NA	NA	(2)	
N-Nitrosomorpholine (NMOR)	ppt	ND	NR	NR	NA	NA	(2)	

#### Perfluoroalkyl and Polyfluoroalkyl Substances PFAS Analyzed by EPA Methods 533 and 537.1 (u,v)

Perfluorocanoic Acid (PFOA)	ppt	ND	ND	ND	NL=5.1	NA	4	
Perfluorooctanesulfonic Acid (PFOS)	ppt	ND	ND	ND	NL=6.5	NA	4	
Perfluorobutaneulfonic Acid (PFBS)	ppt	ND	ND	ND	NL=500	NA	3	
Perfluorononoic Acid (PFNA)	ppt	ND	ND	ND	NA	NA	4	

Perfluorohexanesulfonic Acid (PFHxS)	ppt	ND	ND	ND	NL=3	NA	3	Industrial chemical factory discharges: runoff/leaching from landfills: used in fire-retarding foams and various industrial processes
Perfluoroheptanoic Acid (PFHpA)	ppt	ND	ND	ND	NA	NA	3	
Perfluorodecanoic Acid (PFDA)	ppt	ND	ND	ND	NA	NA	3	
Perfluorododecanoic Acid (PFDoA)	ppt	ND	ND	ND	NA	NA	3	
Perfluorohexanoic Acid (PFHxA)	ppt	ND	ND	ND	NA	NA	3	
Perfluoroundecanoic Acid (PFUnA)	ppt	ND	ND	ND	NA	NA	2	
4,8-dioxa-3H-perfluorononanoate (ADONA)	ppt	ND	ND	ND	NA	NA	3	
F-53B Major (11-Cl-PF3OUdS)	ppt	ND	ND	ND	NA	NA	5	
F-53B Minor (9Cl-PF3ONS)	ppt	ND	ND	ND	NA	NA	2	
GenX (HFPO-DA)	ppt	ND	ND	ND	NA	NA	5	
<b>Perfluoroalkyl and Polyfluoroalkyl Substances PFAS Analyzed by EPA Methods 533 Only (u)</b>								N
4-2 Fluorotelomer sulfonic acid (42. FTS)	ppt	ND	ND	ND	NA	NA	3	Industrial chemical factory discharges, runoff/leaching from landfills: used in fire-retarding foams and various industrial processes
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ppt	ND	ND	ND	NA	NA	5	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ppt	ND	ND	ND	NA	NA	5	
Perfluoro 3-methoxypropanoic acid (PFMPA)	ppt	ND	ND	ND	NA	NA	4	
Perfluoro-4-methoxybutanoic acid (PFMBA)	ppt	ND	ND	ND	NA	NA	3	
Perfluorobutanoic acid (PFBA)	ppt	ND	ND	ND	NA	NA	5	
Perfluoroheptanesulfonic acid (PFHpS)	ppt	ND	ND	ND	NA	NA	3	
Perfluoropentanesulfonic acid (PFPeS)	ppt	ND	ND	ND	NA	NA	4	
Perfluoropenetanoic acid (PFPeA)	ppt	ND	ND	ND	NA	NA	3	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ppt	ND	ND	ND	NA	NA	20	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ppt	ND	ND	ND	NA	NA	3	
<b>Perfluoroalkyl and Polyfluoroalkyl Substances PFAS Analyzed by EPA Methods 537.1 Only (u)</b>								
Perfluorotetradecanoic acid (PFTA)	ppt	ND	ND	ND	NA	NA	8	
Perfluorotridecanoic acid (PFTrDA)	ppt	ND	ND	ND	NA	NA	7	
N-ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ppt	ND	ND	ND	NA	NA	5	
N-methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ppt	ND	ND	ND	NA	NA	6	
<b>Miscellaneous (n)</b>								
Calcium Carbonate Precipitation Potential (CCPP) (as CaCO3) (p)	ppm	1.3 - 9.4/4.2	NR	NR	NA	NA	NA	Measures of the balance between pH and calcium carbonate saturation in the water
Corrosivity (q) (as Aggressiveness Index)	Al	121 - 12.4/12.2	11.86	12.53	NA	NA	NA	
Corrosivity (r)	Sl	0.21 - 0.58/0.39	0.01	0.69	NA	NA	NA	

(as Saturation Index)								
pH	pH units	8.6	8.2-8.8/8.6	7.9	NA	NA	NA	Measure of water quality
Radon	pCi/L	ND	NR	NR	NA	NA	100	Gas produced by the decay of naturally occurring uranium in soil and water
Total Dissolved Solids (TDS) (s)	ppm	210 - 641/357	130	350	1,000	NA	NA	Runoff/leaching from natural deposits
Sum of Five Haloacetic Acids (HAA5)	ppb	ND - 5.9/4.1	NR	NR	60	NA	1	Byproducts of drinking water chlorination
Total Trihalomethanes (TTHM)	ppb	13 - 68/23	30.7-66.8/54	NR	80	NA	1	

## DEFINITION OF TERMS AND FOOTNOTES

‡ As a wholesale water system, Metropolitan and Three Valleys MWD provides its member agencies with relevant source water information and monitoring results that they may need for their annual water quality report. Compliance with state or federal regulations is determined at the treatment plant effluent locations and/or distribution system, or plant influent per frequency stipulated in Metropolitan and Three Valleys MWD's State-approved monitoring plans, and is based on TT, RAA, or LRAA, as appropriate. Data above Metropolitan's laboratory reporting limit (RL) but below the State DLR are reported as ND in this report; these data are available upon request. Metropolitan and Three Valleys MWD were in compliance with all primary and secondary drinking water regulations for the current monitoring period.

Note: Metropolitan and Three Valleys MWD monitors the distribution system for constituents under the revised Total Coliform Rule (RTCR), Water Fluoridation Standards, and Disinfectants/Disinfection Byproduct Rule (TTHMs, HAA5, and total chlorine residual), including NDMA. Constituents with grayed out areas in the distribution system column are routinely monitored at treatment plant effluents and not in the distribution system.

### Definition of Terms

AI	Aggressiveness Index	NL	Notification Level to SWRCB
AL	Action Level	NR	Not required
Average	Result based on arithmetic mean	NTU	Nephelometric Turbidity Units
CaCO <sub>3</sub>	Calcium Carbonate	pCi/L	picoCuries per Liter
CCPP	Calcium Carbonate Precipitation Potential	PHG	Public Health Goal
CFE	Combined Filter Effluent	ppb	parts per billion or micrograms per liter (µg/L)
CFU	Colony-Forming Units	ppm	parts per million or milligrams per liter (mg/L)
DLR	Detection Limits for Purposes of Reporting	ppq	parts per quadrillion or picograms per liter (pg/L)
HAA5	Sum of five haloacetic acids	RAA	Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as an average of all the samples collected within a 12-month period
HPC	Heterotrophic Plate Count		
LRAA	Locational Running Annual Average; highest LRAA is the highest of all Locational Running Annual Averages calculated as an average of all samples collected within a 12-month period	Range	Results based on minimum and maximum values; range and average values are the same if a single value is reported for samples collected once or twice annually
MCL	Maximum Contaminant Level	RL	Reporting Limit
MCLG	Maximum Contaminant Level Goal	SI	Saturation Index (Langelier)
MFL	Million Fibers per Liter	SWRCB	State Water Resources Control Board
MRDL	Maximum Residual Disinfectant Level	TDS	Total Dissolved Solids
MRDLG	Maximum Residual Disinfectant Level Goal	TON	Threshold Odor Number
NA	Not Applicable	TT	Treatment Technique is a required process intended to reduce the level of a contaminate in drinking water
ND	Not Detected at or above DLR or RL	TTHM	Total Trihalomethanes

### Footnotes

- Metropolitan and Three Valleys MWD monitors turbidity at the CFE locations using continuous and grab samples. Turbidity, a measure of cloudiness of the water, is an indicator of treatment performance. Turbidity was in compliance with the TT primary drinking water standard and the secondary drinking water standard of less than 5 NTU.
- Per the State's Surface Water Treatment Rule, treatment techniques that remove or inactivate *Giardia* cysts will also remove HPC bacteria, *Legionella*, and viruses. *Legionella* and virus monitoring is not required.
- Compliance is based on monthly samples from treatment plant effluents and the distribution system.
- The MCL for *E. coli* is based on any of the following conditions: Coliform-positive routine and repeat samples with either of them positive for *E. coli*; failure to analyze a repeat sample following an *E. coli*-positive routine sample; or a coliform-positive repeat sample is not tested for the presence of *E. coli*. No coliforms were found in the water treatment system and distribution system. No Level 1 assessment or MCL violations occurred.
- All distribution system samples had detectable total chlorine residuals, so no HPC analysis was required. Metropolitan and TVMWD monitor HPC bacteria to ensure treatment process efficacy.
- MWD data are from samples collected in 2021 and reported once every three-year compliance cycle until the next required monitoring in 2024. TVMWD data are from samples collected in 2023.
- MWD uses acrylamide for water treatment processes and was in compliance with the treatment technique requirements regarding its use when treating drinking water. MWD does not use any epichlorohydrin's. TVMWD does not use acrylamide or epichlorohydrin's for water treatment processes.
- MWD data reported for 2020 for the required nine-year monitoring cycle (2020-2028). TVMWD data reported for 2023 and is conducted annually.
- As a wholesaler, Metropolitan and Three Valleys MWD have no retail customers and are not required to collect samples at consumers' taps. However, compliance monitoring under Title 22 is required at plant effluents.
- Metropolitan was in compliance with all provisions of the State's fluoridation system requirements. TVMWD does not have fluoride feed systems and all fluoride results are naturally occurring.

- (k) Compliance with the state and federal MCLs is based on RAA or LRAA, as appropriate. Plant core locations for TTHM and HAA5 are service connections specific to each of the treatment plant effluents.
- (l) Compliance with the state and federal bromate MCL is based on RAA.
- (m) Metropolitan's TDS compliance data are based on flow-weighted monthly composite samples collected twice per year (April and October). The 12-month statistical summary of flow-weighted data is reported in "Other Parameters". TVMWD is required to test once annually for TDS.
- (n) Data are from voluntary monitoring of constituents and are provided for informational purposes.
- (o) Compliance with odor threshold secondary MCL is based on RAA. Treatment Plant begin quarterly monitoring if annual monitoring results are above 3.
- (p) Positive CCPP = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative CCPP = corrosive; tendency to dissolve calcium carbonate. Reference: *Standard Methods (SM2330)*
- (q) AI  $\geq 12.0$  = Non-aggressive water; AI 10.0–11.9 = Moderately aggressive water; AI  $\leq 10.0$  = Highly aggressive water. Reference: *ANSI/AWWA Standard C400-93 (R98)*
- (r) Positive SI = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative SI = corrosive; tendency to dissolve calcium carbonate. Reference: *Standard Methods (SM2330)*
- (s) Statistical summary represents 12 months of flow-weighted data and values may be different than the TDS reported to meet compliance with secondary drinking water regulations for Metropolitan. Metropolitan's and TVMWD TDS goal is < 500 mg/L.
- (t) HAA5 and TTHM noncompliance samples were collected at the treatment plant effluents.
- (u) CCRDL is based on the EPA UCMR5 MRLs for the 29 constituents detected by EPA Methods 533 and 537.1. Results below CCRDLs are considered "ND". PFAS results for those below the CCRDLs and above the RLs are included in this report.
- (v) Data are the average of the results from the two analytical methods.