Three Valleys Municipal Water District
2019 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 Range/Average	MIRAMAR PLANT Range/Average	MIRAMAR GROUNDWATER Range/Average	REGULATORY STANDARDS State (Federal) MCL	PHG	State DLR (RL)	Major Sources in Drinking Water
SOURCE WATER								
% of State Project Water		0-100/68	*94.46*		NA	NA	NA	
% of Groundwater				*5.54*				
PRIMARY STANDARDS - Mandatory Health-Related Standards								
CLARITY								
Combined Filter Effluent (CFE) Turbidity (a)	NTU % ≤ 0.3	**0.04 (highest) 100%**	***0.076 (highest) 100%***	***0.20 (highest) 100%***	**TT**	**NA**	**NA**	Soil runoff
MICROBIOLOGICAL (b)								
Total Coliform Bacteria (c)	% Positive	**0-0.2/0%** distribution system-wide	***0%*** distribution system-wide	***0%***	**5.0**	**MCLG = 0**	**NA**	Naturally present in the environment
Escherichia coli (E. coli) (c,d)	Number	**0%** distribution system-wide	***0%*** distribution system-wide	***0%***	**1**	**MCLG = 0**	**NA**	Human and animal fecal waste
Heterotrophic Plate Count (e)	CFU/ mL	**ND-1/ND**	***ND***	***ND***	**TT**	**NA**	**(1)**	Naturally present in the environment
Cryptosporidium	Oocyst 200 L	**ND**	***ND***	***ND***	**TT**	**MCLG = 0**	**(1)**	Human and animal fecal waste
Giardia	Cysts 200 L	**ND**	***ND***	***ND***	**TT**	**MCLG = 0**	**(1)**	Human and animal fecal waste
ORGANIC CHEMICALS								
Synthetic Organic Compounds (f)	*Units*			***2018 (due 2020)***				
1,2,3-Trichloropropane (1,2,3-TCP)	ppt	**ND**	***ND***	***ND***	**5**	**0.7**	**5**	Discharge from industrial and agrichemical factories; byproducts of producing other compounds and pesticides, leaching from hazardous waste site
2,4,5-TP (Silvex)	ppb	**ND**	***ND***	***ND***	**50**	**3**	**1**	Residue of banned herbicide
2,4-D	ppb	**ND**	***ND***	***ND***	**70**	**20**	**10**	Runoff from herbicide used on row crops, range land, lawns and aquatic weeds
Acrylamide (g)	ppm	**NA**	***NR***	***ND***	**TT**	**MCLG = 0**	**NA**	Water treatment chemical impurities
Alachlor	ppb	**ND**	***ND***	***ND***	**2**	**4**	**1**	Runoff from herbicide used on row crops
Atrazine	ppb	**ND**	***ND***	***ND***	**1**	**0.15**	**0.5**	Runoff from herbicide used on row crops and along railroad and highways rights-of-way
Bentazon	ppb	**ND**	***ND***	***ND***	**18**	**200**	**2**	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses
Benzo(a)pyrene	ppt	**ND**	***ND***	***ND***	**200**	**7**	**100**	Leaching from linings of water storage tanks and distribution mains
Carbofuran	ppb	**ND**	***ND***	***ND***	**18**	**0.7**	**5**	Leaching of soil fumigant used on rice, alfalfa and grapes vineyards
Chlordane	ppt	**ND**	***ND***	***ND***	**100**	**30**	**100**	Residue of banned insecticide
Dalapon	ppb	**ND**	***ND***	***ND***	**200**	**790**	**10**	Runoff from herbicide used on rights of way, crops and landscape maintenance
Di(2-ethylhexyl) adipate	ppb	**ND**	***ND***	***ND***	**400**	**200**	**5**	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	ppb	**ND**	***ND***	***ND***	**4**	**12**	**3**	Discharge from rubber and chemical factories; inert ingredient in pesticides
Dibromochloropropane (DBCP)	ppt	**ND**	***ND***	***ND***	**200**	**1.7**	**10**	Banned nematicide that may still be present in soils due to runoff/leaching
Dinoseb	ppb	**ND**	***ND***	***ND***	**7**	**14**	**2**	Runoff from herbicide used on soybeans, vegetables and fruits
Dioxin (2,3,7,8-TCDD)	ppq	**ND**	***ND***	***ND***	**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**	***NR***	***NR***	**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 & agrichemical 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	ppt	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
cis -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-*tert* -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	0.6	*ND*	*ND*	150	150	0.5	Discharge from petroleum and chemical refineries
trans -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			*2018 (due 2020)*					
Aluminum (h)	ppb	ND - 110/122	*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	*ND*	*ND*	10	0.004	2	Erosion of natural deposits; glass & electronics production wastes
Asbestos (i)	MFL	ND	*ND*	*NR*	7	7	0.2	Internal corrosion of asbestos cement pipes; erosion of natural deposits
Barium	ppb	ND	*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 (j)	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 (k)	ppm	0.6 - 0.9/0.7 (treatment related)	*ND* (naturally occurring)	*0.41-0.59/0.5* (naturally occurring)	2	1	0.1	Erosion of natural deposits; water additive that promotes strong teeth
Lead (j)	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	0.5	*ND*	*1.6-3.5/2.56* 2019	10	10	0.4	Runoff & leaching from fertilizer use; septic tank and sewage; erosion of natural deposits
Nitrite (as Nitrogen)	ppm	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	4	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 (l)								
Gross Alpha Particle Activity	pCi/L	ND	*ND (2018)* due 2023	*ND* due 2028	15	(0)	3	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	ND	*1.79*	*NR*	50	(0)	4	Decay of natural and man-made deposits
Combined Radium Radium 226 + 228	pCi/L	ND	*ND (2015)* due 2022	*0.148 (2016)* due 2028	5	(0)	NA	Erosion of natural deposits
Radium 226	pCi/L	ND	*ND (2015)* due 2022	*0.147 (2016)* due 2028	NA	0.05	1	Erosion of natural deposits
Radium 228	pCi/L	ND	*ND (2015)* due 2022	*0.001 (2016)* due 2028	NA	0.019	1	Erosion of natural deposits
Strontium-90	pCi/L	ND	*0.130*	*NR*	8	0.35	2	Decay of natural and man-made deposits
Tritium	pCi/L	ND	*377*	*NR*	20,000	400	1,000	Decay of natural and man-made deposits
Uranium	pCi/L	ND	*ND (2018)* DUE 2023	*2.4 (2017)* due 2020	20	0.43	1	Erosion of natural deposits
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS (m)								
Total Trihalomethanes (TTHM)	ppb	12-56/28 Distribution system-wide (i)	*39.1-69.2/49.47* Distribution system-wide (i)	*NR*	80	NA	1	By-product of drinking water disinfection
Sum of Five Haloacetic Acids (HAA5)	ppb	ND-13/9.0 Distribution system-wide (i)	*11.6-39.0/20.24* Distribution system-wide (i)	*NR*	60	NA	1	By-product of drinking water disinfection
Total Chlorine Residual	ppm	0.5-2.9/2.4 highest RAA Distribution system-wide	*2.58-2.61/2.59* highest RAA Distribution system-wide	*NR*	[4.0]	[4.0]	NA	Drinking water disinfectant added for treatment
Bromate (n)	ppb	ND-8.1/1.9 highest RAA (j)	*NA*	*NA*	10	0.1	1.0	Byproduct of drinking water ozonation
Total Organic Carbon (TOC)	ppm	1.7-2.6/2.4	*1.07-1.16/1.12*	*ND*	TT	NA	0.30	Various natural and man-made sources; TOC as a medium for the formation of disinfection byproducts
SECONDARY STANDARDS - Aesthetic Standards			2018 (due 2020)					
Aluminum (o)	ppb	ND-110	*ND-100/ND*	*ND*	200	600	50	Residue from water treatment processes; natural deposits erosion

		Highest RAA 122						
Chloride	ppm	46-55/50	*74*	*6.8-9.8/8.3*	500	NA	(2)	Runoff/leaching from natural deposits; seawater influence
Color	units	ND-1/ND	*1*	*ND*	15	NA	(1)	Naturally occurring organic materials
Copper (j)	ppm	ND	*ND*	*ND*	1	0.3	0.05	Internal corrosion of household pipes; natural deposits erosion; wood preservatives leaching
Foaming Agents-Methylene Blue Ac	ppb	ND	*0.11*	*ND*	500	NA	(50)	Municipal and industrial waste discharges
Iron	ppb	243	*ND*	*ND*	300	NA	100	Leaching from natural deposits; industrial wastes
Manganese	ppb	ND	*ND*	*ND*	50	NL=500	20	Leaching from natural deposits
MTBE	ppb	ND	*ND*	*ND*	5	13	3	Gasoline discharges from watercraft engines
Odor Threshold	TON	1	*1*	*1*	3	NA	1	Naturally occurring organic materials
Silver	ppb	ND	*ND*	*ND*	100	NA	10	Industrial discharges
Specific Conductance	µS/cm	435-503/469	*300-440/370*	*380-410/395*	1,600	NA	NA	Substances that form ions when in water; seawater influence
Sulfate	ppm	65-81/73	*32*	*25-31/28*	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) (p)	ppm	244-289/266	*250*	*210-230/220*	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				2018 (due 2020)				
Alkalinity (as CaCO3)	ppm	67-70/68	*60-77/68.5*	*150-160/155*	NA	NA	(1)	Measure of water quality
Calcium	ppm	23-27/25	*15-19/17*	*51-52/51.5*	NA	NA	(0.1)	Measure of water quality
Hardness (as $CaCO_3$)	ppm	101-116/108	*95*	*160-170/165*	NA	NA	(1)	Measure of water quality
Magnesium	ppm	11-12/12	*11*	*1.5-8.6/8.05*	NA	NA	(0.01)	Measure of water quality
Potassium	ppm	2.2-2.7/2.4	*1.8*	*1.4*	NA	NA	(0.2)	Measure of water quality
Sodium	ppm	46-54/50	*49*	*13-22/17.5*	NA	NA	(1)	Measure of water quality
Unregulated Contaminants								
Boron	ppb	120	*120-160/140*	*150 (2018)* *DUE 2020*	NL=1,000	NA	100	Runoff/leaching from natural deposits; industrial wastes
Chlorate	ppb	42	*ND*	*NR*	NL=800	NA	20	By-product of drinking water chlorination; industrial processes
Chromium VI	ppb	ND	*ND*	*ND* *DUE 2020*	NA	0.02	1	Runoff/leaching from natural deposits; discharge from industrial waste factories
Vanadium	ppb	ND	*ND*	*NR*	NL=50	NA	3	Naturally occurring; industrial waste discharge
tert-Butyl alcohol (TBA)	ppb	ND	*ND*	*NR*	NL=12	NA	2	MTBE breakdown product; used as gasoline additive
Dichlorodifluoromethane (Freon 12)	ppb	ND	*NR*	*NR*	NL=1,000	NA	0.5	Industrial waste discharge
N-Nitrosodimethylamine (NDMA)	ppt	ND	*ND*	*NR*	NL=10	3	(2)	By-product of drinking water chlorination; industrial processes
Miscellaneous (q)								
Calcium Carbonate Precipitation Potential (CCPP) (as CaCO3) (r)	ppm	1.1-7.3/2.6	*NR*	*NR*	NA	NA	NA	Elemental balance in water; affected by temperature, other factors
Corrosivity (s) (as Aggressiveness Index)	AI	12.1-12.2/12.1	*11.46*	*NR*	NA	NA	NA	Elemental balance in water; affected by temperature, other factors
Corrosivity (t) (as Saturation Index)	SI	0.34-0.38/0.36	*-0.33*	*NR*	NA	NA	NA	Elemental balance in water; affected by temperature, other factors
pH	pH units	8.5	*8.58*	*7.9-8.2/8.1*	NA	NA	NA	Measure of water quality
Radon	pCi/L	ND	*NR*	*NR*	NA	NA	100	Naturally occurring, comes from decay of uranium in nearly all soils
Total Dissolved Solids (TDS) (u)	ppm	246-606/352	*220-250/235*	*210-230/220*	1,000	NA	(2)	Runoff/leaching from natural deposits; seawater influence
Ethyl-*tert*-butyl-ether (ETBE)	ppb	ND	*ND*	*NR*	NA	NA	3	Used as gasoline additive
tert-Amyl-methyl-ether (TAME)	ppb	ND	*ND*	*NR*	NA	NA	3	Used as gasoline additive

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 (TCR), 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	NA	Not Applicable
AL	Action Level	ND	Not Detected at or above DLR or RL
Average	Result based on arithmetic mean	NL	Notification Level to SWRCB
$CaCO_3$	Calcium Carbonate	NTU	Nephelometric Turbidity Units
CCPP	Calcium Carbonate Precipitation Potential	pCi/L	picoCuries per Liter
CFE	Combined Filter Effluent	PHG	Public Health Goal
CFU	Colony-Forming Units	ppb	parts per billion or micrograms per liter (µg/L)
DLR	Detection Limits for Purposes of Reporting	ppm	parts per million or milligrams per liter (mg/L)
HAA5	Sum of five haloacetic acids	ppq	parts per quadrillion or picograms per liter (pg/L)
HPC	Heterotrophic Plate Count	RAA	Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as an average of all the within a 12-month period
	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
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
		TT	Treatment Technique is a required process intended to reduce the level of a contaminate in drinking water
		TTHM	Total Trihalomethanes

Footnotes

(a) 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.

(b) 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.

(c) Compliance is based on monthly samples from treatment plant effluents and the distribution system.

(d) 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*.

(e) All distribution system samples had detectable total chlorine residuals, so no HPC analysis was required. Metropolitan monitors HPC bacteria to ensure treatment process efficacy.

(f) Data are from samples collected in 2018 for the required triennial monitoring (2017-2019) except for 1,2,3-Trichloropropane which began monitoring in 2018.

(g) Metropolitan uses acrylamide for water treatment processes and was in compliance with the treatment technique requirements regarding its use when treating drinking water.

(h) Compliance with the State MCL for aluminum is based on RAA. No secondary standard MCL exceedance occurred in the Jensen treatment plant effluent.

(i) Data reported once every nine-year compliance cycle until the next samples are collected in 2020. Current monitoring results are from 2011.

(j) As a wholesaler, Metropolitan and Three Valleys MWD have no retail customers and is not required to collect samples at consumers' taps. However, compliance monitoring under Title 22 is required at plant effluents.

(k) Metropolitan was in compliance with all provisions of the State's fluoridation system requirements. Fluoride feed systems were temporarily out of service during treatment plant shutdowns and/or maintenance work in 2019, resulting in occasional fluoride levels below 0.6 mg/L .

(l) MWD data are from samples collected in 2017 for the required triennial monitoring (2017-2019) until the next samples are collected. Three Valleys MWD data are from 2018.

(m) 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.

(n) Compliance with the State and Federal bromate MCL is based on RAA.

(o) Compliance with odor threshold secondary MCL is based on RAA. Treatment Plant begin quarterly monitoring if annual monitoring results are above 3.

(p) 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 the section under

(q) Data are from voluntary monitoring of constituents and are provided for informational purposes.

(r) 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)*

(s) AI ≥ 12.0 = Non-aggressive water; AI 10.0–11.9 = Moderately aggressive water; AI ≤ 10.0 = Highly aggressive water. Reference: *ANSI/AWWA Standard C400-93 (R98)*

(t) 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)*

(u) 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.

revised 5/5/20