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Parameter	Units	State or Federal MCL	PHG	State DLR	Range / Average	Treatment Plant Effluent: Weymouth Plant	Diemer Plant	Jensen Plant	Skinner Plant	Mills Plant	Major Sources in Drinking Water
Percent State Project Water	%	NA	NA	NA	Range	0-100	0-100	100	0-31	100	
					Average	13	10	100	8	100	
PRIMARY STANDARDS—Mandatory Health-Related Standards											
CLARITY											
Combined Filter Effluent Turbidity	NTU	TT = 1			Highest	0.03	0.07	0.05	0.09	0.10	
	%	TT (a)	NA	NA	% ≤ 0.3	100	100	100	100	100	Soil runoff
MICROBIOLOGICAL											
Total Coliform Bacteria (b) State Total Coliform Rule					Range	Distribution System-wide: ND-0.3					
	%	5.0	MCLG = 0	NA	Average	Distribution System-wide: ND					Naturally present in the environment
E. coli (Acute Total Coliform) State Total Coliform Rule											
	(c)	(c)	MCLG = 0	NA		Distribution System-wide: ND					Human and animal fecal waste
Total Coliform Bacteria Federal Revised Total Coliform Rule					Range	Distribution System-wide: ND-0.3					
	%	TT (d)	NA	NA	Average	Distribution System-wide: 0.1					Naturally present in the environment
E. coli Federal Revised Total Coliform Rule											
	(e)	(e)	MCLG = 0	NA		Distribution System-wide: ND					Human and animal fecal waste
Heterotrophic Plate Count (HPC) (f)					Range	Distribution System-wide: TT					
	CFU/mL	TT	NA	NA	Average	Distribution System-wide: TT					Naturally present in the environment
Cryptosporidium	oocysts/ 200 L	TT	MCLG = 0	NA	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Human and animal fecal waste
Giardia	cysts/ 200 L	TT	MCLG = 0	NA	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Human and animal fecal waste
ORGANIC CHEMICALS											
Pesticides/PCBs (g)											
Alachlor	ppb	2	4	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops
Atrazine	ppb	1	0.15	0.5	Range	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops
					Average	ND	ND	ND	ND	ND	and along highways
Bentazon	ppb	18	200	2	Range	ND	ND	ND	ND	ND	Runoff/leaching from herbicide used on rice,
					Average	ND	ND	ND	ND	ND	alfalfa, and grapes
Carbofuran	ppb	18	0.7	5	Range	ND	ND	ND	ND	ND	Leaching of soil fumigant used on rice, alfalfa,
					Average	ND	ND	ND	ND	ND	and grapes
Chlordane	ppt	100	30	100	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Residue of banned insecticide
2,4-D	ppb	70	20	10	Range	ND	ND	ND	ND	ND	Runoff from herbicide used on row crops,
					Average	ND	ND	ND	ND	ND	rangeland, lawns, and aquatic weeds
Dalapon	ppb	200	790	10	Range	ND	ND	ND	ND	ND	Runoff from herbicide used on rights-of-way,
					Average	ND	ND	ND	ND	ND	crops, and landscapes
Dibromochloropropane (DBCP)	ppt	200	1.7	10	Range	ND	ND	ND	ND	ND	Banned nematocide that may still be present
					Average	ND	ND	ND	ND	ND	in soils
Dinoseb	ppb	7	14	2	Range	ND	ND	ND	ND	ND	Runoff from herbicide used on soybeans,
					Average	ND	ND	ND	ND	ND	vegetables, and fruits
Diquat	ppb	20	6	4	Range	ND	ND	ND	ND	ND	Runoff from herbicide used for terrestrial
					Average	ND	ND	ND	ND	ND	and aquatic weeds
Endothall	ppb	100	94	45	Range	ND	ND	ND	ND	ND	Runoff from herbicide used for terrestrial
					Average	ND	ND	ND	ND	ND	and aquatic weeds
Endrin	ppb	2	0.3	0.1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Residue of banned insecticide and rodenticide
Ethylene Dibromide (EDB)	ppt	50	10	20	Range	ND	ND	ND	ND	ND	Petroleum refinery discharges; underground
					Average	ND	ND	ND	ND	ND	gas tank leaks
Glyphosate	ppb	700	900	25	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff from herbicide use
Heptachlor	ppt	10	8	10	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Residue of banned insecticide
Heptachlor Epoxide	ppt	10	6	10	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Breakdown product of heptachlor
Lindane	ppt	200	32	200	Range	ND	ND	ND	ND	ND	Runoff/leaching from insecticide used on cattle,
					Average	ND	ND	ND	ND	ND	lumber, and gardens
Methoxychlor	ppb	30	0.09	10	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff/leaching from insecticide uses
Molinate (Ordram)	ppb	20	1	2	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff/leaching from herbicide used on rice
Oxamyl (Vydate)	ppb	50	26	20	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff/leaching from insecticide uses
Pentachlorophenol	ppb	1	0.3	0.2	Range	ND	ND	ND	ND	ND	Discharge from wood preserving factories
					Average	ND	ND	ND	ND	ND	other insecticidal and herbicidal uses

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Picloram	ppb	500	166	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Herbicide runoff
Polychlorinated Biphenyls (PCBs)	ppt	500	90	500	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff from landfills; discharge of waste chemicals
Simazine	ppb	4	4	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Herbicide runoff
Thiobencarb	ppb	70	42	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Runoff leaching from rice herbicide
2,4,5-TP (Silvex)	ppb	50	3	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Residue of banned herbicide
Toxaphene	ppb	3	0.03	1	Range	ND	ND	ND	ND	ND	Runoff/leaching from insecticide used on cotton and cattle
					Average	ND	ND	ND	ND	ND	
Semi-Volatile Organic Compounds (g)											
Acrylamide	NA	TT	MCLG = 0	NA	Range	TT	TT	TT	TT	TT	
					Average	TT	TT	TT	TT	TT	Water treatment chemical impurities
Benzo(a)pyrene	ppt	200	7	100	Range	ND	ND	ND	ND	ND	Leaching from water storage tank linings and distribution lines
					Average	ND	ND	ND	ND	ND	
Di(2-ethylhexyl)adipate	ppb	400	200	5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from chemical factories
Di(2-ethylhexyl)phthalate	ppb	4	12	3	Range	ND	ND	ND	ND	ND	Chemical factory discharge; inert ingredient in pesticides
					Average	ND	ND	ND	ND	ND	
Epichlorohydrin	NA	TT	MCLG = 0	NA	Range	TT	TT	TT	TT	TT	
					Average	TT	TT	TT	TT	TT	Water treatment chemical impurities
Hexachlorobenzene	ppb	1	0.03	0.5	Range	ND	ND	ND	ND	ND	Discharge from metal refineries & agrichemicals factories; wastewater chlorination reaction byproduct
					Average	ND	ND	ND	ND	ND	
Hexachlorocyclopentadiene	ppb	50	2	1	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from chemical factories
2,3,7,8-TCDD (Dioxin)	ppq	30	0.05	5	Range	ND	ND	ND	ND	ND	Waste incineration emissions; chemical factory discharge
					Average	ND	ND	ND	ND	ND	
Volatile Organic Compounds											
Benzene	ppb	1	0.15	0.5	Range	ND	ND	ND	ND	ND	Plastics factory discharge; gas tanks and landfill leaching
					Average	ND	ND	ND	ND	ND	
Carbon Tetrachloride	ppt	500	100	500	Range	ND	ND	ND	ND	ND	Discharge from chemical plants and other industrial waste
					Average	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ppb	600	600	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,4-Dichlorobenzene	ppb	5	6	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,1-Dichloroethane	ppb	5	3	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Extraction and degreasing solvent; fumigant
1,2-Dichloroethane	ppt	500	400	500	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
1,1-Dichloroethylene	ppb	6	10	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
cis -1,2-Dichloroethylene	ppb	6	100	0.5	Range	ND	ND	ND	ND	ND	Industrial chemical factory discharge; byproduct of TCE and PCE biodegradation
					Average	ND	ND	ND	ND	ND	
trans -1,2-Dichloroethylene	ppb	10	60	0.5	Range	ND	ND	ND	ND	ND	Industrial chemical factory discharge; byproduct of TCE and PCE biodegradation
					Average	ND	ND	ND	ND	ND	
Dichloromethane (Methylene Chloride)	ppb	5	4	0.5	Range	ND	ND	ND	ND	ND	Discharge from pharmaceutical and chemical factories
					Average	ND	ND	ND	ND	ND	
1,2-Dichloropropane	ppb	5	0.5	0.5	Range	ND	ND	ND	ND	ND	Industrial chemical factory discharge; primary component of some fumigants
					Average	ND	ND	ND	ND	ND	
1,3-Dichloropropene	ppt	500	200	500	Range	ND	ND	ND	ND	ND	Runoff/leaching from nematocide used on croplands
					Average	ND	ND	ND	ND	ND	
Ethylbenzene	ppb	300	300	0.5	Range	ND	ND	ND	ND	ND	Petroleum refinery discharge; industrial chemical factories
					Average	ND	ND	ND	ND	ND	
Methyl-*tert* -butyl ether (MTBE)	ppb	13	13	3	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Gasoline discharge from watercraft engines
Monochlorobenzene	ppb	70	70	0.5	Range	ND	ND	ND	ND	ND	Discharge from industrial, agricultural, and chemical factories, and dry cleaners
					Average	ND	ND	ND	ND	ND	
Styrene	ppb	100	0.5	0.5	Range	ND	ND	ND	ND	ND	Rubber and plastics factories discharge; landfill leaching
					Average	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	ppb	1	0.1	0.5	Range	ND	ND	ND	ND	ND	Discharge from industrial, agricultural, and chemical factories; solvent uses
					Average	ND	ND	ND	ND	ND	
Tetrachloroethylene (PCE)	ppb	5	0.06	0.5	Range	ND	ND	ND	ND	ND	Discharge from factories, dry cleaners, and auto shops
					Average	ND	ND	ND	ND	ND	

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Toluene	ppb	150	150	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from petroleum and chemical refineries
1,2,4-Trichlorobenzene	ppb	5	5	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from textile-finishing factories
1,1,1-Trichloroethane	ppb	200	1,000	0.5	Range	ND	ND	ND	ND	ND	Metal degreasing site discharge; manufacture
					Average	ND	ND	ND	ND	ND	of food wrappings
1,1,2-Trichloroethane	ppb	5	0.3	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Discharge from industrial chemical factories
Trichloroethylene (TCE)	ppb	5	1.7	0.5	Range	ND	ND	ND	ND	ND	Discharge from metal degreasing sites and
					Average	ND	ND	ND	ND	ND	other factories
Trichlorofluoromethane (Freon-11)	ppb	150	1,300	5	Range	ND	ND	ND	ND	ND	Industrial factory discharge; degreasing solvent;
					Average	ND	ND	ND	ND	ND	propellant
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ppm	1.2	4	0.01	Range	ND	ND	ND	ND	ND	Discharge from metal degreasing sites and other
					Average	ND	ND	ND	ND	ND	factories; dry cleaning solvent; refrigerant
Vinyl Chloride	ppt	500	50	500	Range	ND	ND	ND	ND	ND	Leaching from PVC piping; plastic factory
					Average	ND	ND	ND	ND	ND	discharge; byproduct of TCE and PCE biodegradation
Xylenes	ppm	1.750	1.8	0.0005	Range	ND	ND	ND	ND	ND	Discharge from petroleum and chemical refineries;
					Average	ND	ND	ND	ND	ND	fuel solvent
INORGANIC CHEMICALS											
Aluminum	ppb	1,000	600	50	Range	77-220	120-240	ND-130	52	93-150	Residue from water treatment process;
					Highest RAA	159	168	100	52	122	natural deposits erosion
Antimony	ppb	6	1	6	Range	ND	ND	ND	ND	ND	Petroleum refinery discharges; fire retardants;
					Average	ND	ND	ND	ND	ND	solder; electronics
Arsenic	ppb	10	0.004	2	Range	ND	ND	3.1	ND	2.5	Natural deposits erosion, glass and electronics
					Average	ND	ND	3.1	ND	2.5	production wastes
Asbestos (h)	MFL	7	7	0.2	Range	ND	ND	ND	ND	ND	Asbestos cement pipes internal corrosion;
					Average	ND	ND	ND	ND	ND	natural deposits erosion
Barium	ppb	1,000	2,000	100	Range	144	138	ND	129	ND	Oil and metal refineries discharge;
					Average	144	138	ND	129	ND	natural deposits erosion
Beryllium	ppb	4	1	1	Range	ND	ND	ND	ND	ND	Discharge from metal refineries, aerospace,
					Average	ND	ND	ND	ND	ND	and defense industries
Cadmium	ppb	5	0.04	1	Range	ND	ND	ND	ND	ND	Internal corrosion of galvanized pipes;
					Average	ND	ND	ND	ND	ND	natural deposits erosion
Chromium	ppb	50	MCLG = 100	10	Range	ND	ND	ND	ND	ND	Discharge from steel and pulp mills;
					Average	ND	ND	ND	ND	ND	natural deposits erosion
Chromium VI (i)	ppb	10	0.02	1	Range	ND	ND	ND	ND	ND	Runoff/leaching from natural deposits;
					Average	ND	ND	ND	ND	ND	discharge from industrial waste factories
Copper (j)	ppm	AL = 1.3	0.3	0.05	Range	ND	ND	ND	ND	ND	Internal corrosion of household pipes;
					Average	ND	ND	ND	ND	ND	natural deposits erosion
Cyanide	ppb	150	150	100	Range	ND	ND	ND	ND	ND	Discharge from steel/metal, plastic, and
					Average	ND	ND	ND	ND	ND	fertilizer factories
Fluoride (k) Treatment-related	ppm	2.0	1	0.1	Control Range	0.6–1.2	0.6–1.2	0.6–1.2	0.6–1.2	0.6–1.2	Erosion of natural deposits; water additive that promotes strong teeth
					Optimal Fluoride Level	0.7	0.7	0.7	0.7	0.7	
					Range	0.6-1.0	0.6-0.9	0.6-0.8	0.6-0.9	0.5-0.8	
					Average	0.7	0.7	0.7	0.7	0.7	
					Range	Distribution System-wide: 0.6-1.0					
Lead (j)	ppb	AL = 15	0.2	5	Range	ND	ND	ND	ND	ND	House pipes internal corrosion;
					Average	ND	ND	ND	ND	ND	erosion of natural deposits
Mercury	ppb	2	1.2	1	Range	ND	ND	ND	ND	ND	Erosion of natural deposits; factory discharge;
					Average	ND	ND	ND	ND	ND	landfill runoff
Nickel	ppb	100	12	10	Range	ND	ND	ND	ND	ND	Erosion of natural deposits; discharge from
					Average	ND	ND	ND	ND	ND	metal factories
Nitrate (as Nitrogen)	ppm	10	10	0.4	Range	ND	ND	0.6-0.9	ND	0.4-1.1	Runoff and leaching from fertilizer use; septic tank
					Average	ND	ND	0.8	ND	0.8	and sewage; natural deposits erosion
Nitrite (as Nitrogen)	ppm	1	1	0.4	Range	ND	ND	ND	ND	ND	Runoff and leaching from fertilizer use; septic tank
					Average	ND	ND	ND	ND	ND	and sewage; natural deposits erosion
Perchlorate (l)	ppb	6	1	4	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Industrial waste discharge
Selenium	ppb	50	30	5	Range	ND	ND	ND	ND	ND	Refineries, mines, and chemical
					Average	ND	ND	ND	ND	ND	waste discharge; runoff from livestock lots
Thallium	ppb	2	0.1	1	Range	ND	ND	ND	ND	ND	Leaching from ore processing; electronics
					Average	ND	ND	ND	ND	ND	factory discharge
RADIOLOGICALS (m)											
Gross Alpha Particle Activity	pCi/L	15	MCLG = 0	3	Range	ND–4	ND–4	ND–5	ND–5	ND–4	
					Average	ND	ND	3	ND	ND	Erosion of natural deposits
Gross Beta					Range	4–6	4–6	ND–5	5	ND	

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Particle Activity	pCi/L	50 (n)	MCLG = 0	4	Average	5	5	ND	5	ND	Decay of natural and man-made deposits
					Range	ND	ND	ND	ND	ND	
Radium-226	pCi/L	NA	0.05	1	Average	ND	ND	ND	ND	ND	Erosion of natural deposits
					Range	ND	ND	ND	ND	ND	
Radium-228	pCi/L	NA	0.019	1	Average	ND	ND	ND	ND	ND	Erosion of natural deposits
Combined					Range	ND	ND	ND	ND	ND	
Radium-226 + 228	pCi/L	5	MCLG = 0	NA	Average	ND	ND	ND	ND	ND	Erosion of natural deposits
					Range	ND	ND	ND	ND	ND	
Strontium-90	pCi/L	8	0.35	2	Average	ND	ND	ND	ND	ND	Decay of natural and man-made deposits
					Range	ND	ND	ND	ND	ND	
Tritium	pCi/L	20,000	400	1,000	Average	ND	ND	ND	ND	ND	Decay of natural and man-made deposits
					Range	2–3	2–3	2–3	1–2	ND–4	
Uranium	pCi/L	20	0.43	1	Average	3	3	2	2	2	Erosion of natural deposits
DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS											
Total Trihalomethanes					Range	24-45	16-24	13-19	14-19	18-30	
(TTHM)	ppb	80	NA	1.0	Average	32	20	16	17	24	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	26-61	21-25	19-28	16-22	16-29	
(TTHM) (o)	ppb	80	NA	1.0	Highest LRAA	42	30	33	21	34	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	Distribution System-wide: 16-62					
(TTHM) (p)	ppb	80	NA	1.0	Highest LRAA	Distribution System-wide: 42					Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	6.4-15	ND-2.3	2.7-5.3	1.6-7.2	3.9-11	
(HAA5)	ppb	60	NA	1.0	Average	8.8	1.2	4.3	4.9	6.4	Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	4.5-25	1.4-4.2	3.0-6.7	3.5-7.5	3.5-10	
(HAA5) (o)	ppb	60	NA	1.0	Highest LRAA	14	9.4	9.0	6.2	7.0	Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	Distribution System-wide: ND-31					
(HAA5) (p)	ppb	60	NA	1.0	Highest LRAA	Distribution System-wide: 14					Byproduct of drinking water chlorination
					Range	Distribution System-wide: 0.9-3.1					
Total Chlorine Residual	ppm	MRDL = 4.0	MRDLG = 4.0	NA	Highest RAA	Distribution System-wide: 2.4					Drinking water disinfectant added for treatment
					Range	NA	ND-6.2	4.4-13	ND-9.1	ND-7	
Bromate (q)	ppb	10	0.1	1.0	Highest RAA	NA	1.2	7.4	4.2	4.5	Byproduct of drinking water ozonation
DBP Precursors Control					Range	TT	TT	TT	TT	TT	Various natural and man-made sources;
as Total Organic Carbon (TOC)	ppm	TT	NA	0.30	Average	TT	TT	TT	TT	TT	TOC as a medium for the formation of disinfection byproducts
SECONDARY STANDARDS—Aesthetic Standards											
					Range	77-220	120-240	ND-130	52	93-150	Residue from water treatment process;
Aluminum	ppb	200	600	50	Highest RAA	159	168	100	52	122	natural deposits erosion
					Range	103	102-103	89-97	102-104	78-89	Runoff/leaching from natural deposits;
Chloride	ppm	500	NA	NA	Average	103	103	93	103	84	seawater influence
	Color				Range	1	1	1-2	1-2	1-2	
Color	Units	15	NA	NA	Average	1	1	2	2	2	Naturally-occurring organic materials
					Range	ND	ND	ND	ND	ND	Internal corrosion of household pipes; natural
Copper (j)	ppm	1.0	0.3	0.05	Average	ND	ND	ND	ND	ND	deposits erosion; wood preservatives leaching
Foaming Agents					Range	ND	ND	ND	ND	ND	
(MBAS)	ppb	500	NA	NA	Average	ND	ND	ND	ND	ND	Municipal and industrial waste discharges
					Range	ND	ND	ND	ND	ND	
Iron	ppb	300	NA	100	Average	ND	ND	ND	ND	ND	Leaching from natural deposits; industrial wastes
					Range	ND	ND	ND	ND	ND	
Manganese	ppb	50	NL = 500	20	Average	ND	ND	ND	ND	ND	Leaching from natural deposits
					Range	ND	ND	ND	ND	ND	
MTBE	ppb	5	13	3	Average	ND	ND	ND	ND	ND	Gasoline discharge from watercraft engines
					Range	2	3	3	3	2	
Odor Threshold	TON	3	NA	1	Average	2	3	3	3	2	Naturally-occurring organic materials
					Range	ND	ND	ND	ND	ND	
Silver	ppb	100	NA	10	Average	ND	ND	ND	ND	ND	Industrial discharges
					Range	1,020-1,050	1,030-1,050	652-721	965-1,030	475-570	Substances that form ions in water;
Specific Conductance	µS/cm	1,600	NA	NA	Average	1,035	1,040	687	998	522	seawater influence
					Range	256-259	257-262	86-104	229-238	29-72	Runoff/leaching from natural deposits;
Sulfate	ppm	500	NA	0.5	Average	258	260	95	234	50	industrial wastes
					Range	ND	ND	ND	ND	ND	
Thiobencarb	ppb	1	42	1	Average	ND	ND	ND	ND	ND	Runoff/leaching from rice herbicide
Total Dissolved Solids					Range	650-659	650-658	377-423	615-632	261-326	Runoff/leaching from natural deposits;
(TDS)	ppm	1,000	NA	NA	Average	655	654	400	624	294	seawater influence
					Range	ND	ND	ND	ND	ND	
Turbidity (a)	NTU	5	NA	0.1	Average	ND	ND	ND	ND	ND	Soil runoff
					Range	ND	ND	ND	ND	ND	Runoff/leaching from natural deposits;
Zinc	ppm	5.0	NA	0.05	Average	ND	ND	ND	ND	ND	industrial wastes

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Parameter	Units	State or Federal MCL	PHG	State DLR	Range / Average	Treatment Plant Effluent: Weymouth Plant	Diemer Plant	Jensen Plant	Skinner Plant	Mills Plant	Major Sources in Drinking Water
OTHER PARAMETERS											
MICROBIOLOGICAL											
HPC (f')	CFU/mL	NA	NA	NA	Range	ND-1	ND-1	ND-1	ND-1	ND	
					Median	ND	ND	ND	ND	ND	Naturally present in the environment
Total Coliform Bacteria (r)	%	NA	NA	NA	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Naturally present in the environment
E. coli (r)	%	NA	NA	NA	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Human and animal fecal waste
CHEMICAL											
Alkalinity (as $CaCO_3$)	ppm	NA	NA	NA	Range	113-124	115-124	92-95	118-125	64-78	
					Average	118	120	94	122	71	
Boron	ppb	NL = 1,000	NA	100	Range	150	150	270	140	240	Runoff/leaching from natural deposits;
					Average	150	150	270	140	240	industrial wastes
Calcium	ppm	NA	NA	NA	Range	75-79	75-76	30-36	70-74	17-27	
					Average	77	76	33	72	22	
Chlorate	ppb	NL = 800	NA	20	Range	60	55	39	51	30	Byproduct of drinking water chlorination;
					Range	Distribution System-wide: 26-60					industrial processes
Corrosivity (s) (as Aggressiveness Index)	AI	NA	NA	NA	Range	12.4-12.5	12.4-12.5	12.2	12.4-12.5	12.0	Elemental balance in water; affected
					Average	12.5	12.5	12.2	12.5	12.0	by temperature, other factors
Corrosivity (t) (as Saturation Index)	SI	NA	NA	NA	Range	0.54-0.60	0.55-0.56	0.35-0.40	0.62-0.66	0.22-0.26	Elemental balance in water; affected
					Average	0.57	0.56	0.38	0.64	0.24	by temperature, other factors
Hardness (as $CaCO_3$)	ppm	NA	NA	NA	Range	293-306	292-300	126-132	274-294	87-112	
					Average	300	296	129	284	100	
Magnesium	ppm	NA	NA	NA	Range	25-27	26-27	12	24-25	10	
					Average	26	27	12	25	10	
pH	pH Units	NA	NA	NA	Range	8.1	8.1	8.3	8.1-8.2	8.3-8.6	
					Average	8.1	8.1	8.3	8.1	8.4	
Potassium	ppm	NA	NA	NA	Range	5.0-5.1	5.0-5.1	2.9-3.2	4.8-4.9	2.7-2.8	
					Average	5.1	5.1	3.1	4.9	2.8	
Radon (m)	pCi/L	NA	NA	100	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	
Sodium	ppm	NA	NA	NA	Range	104-106	99-107	84-94	101-104	62-75	
					Average	105	103	89	102	68	
TOC	ppm	TT	NA	0.30	Range	1.7-2.8	2.1-2.6	1.8-2.8	2.2-2.7	1.6-3.7	Various natural and man-made sources;
					Highest RAA	2.5	2.5	2.2	2.5	2.5	TOC as a medium for the formation of disinfection byproducts
Vanadium	ppb	NL = 50	NA	3	Range	ND	ND	7.4	ND	8.9	
					Average	ND	ND	7.4	ND	8.9	Naturally-occurring; industrial waste discharge
N-Nitrosodimethylamine (NDMA)	ppt	NL = 10	3	2	Range	ND	ND	ND-2.7	ND-2.3	ND-5.6	Byproduct of drinking water chloramination;
					Range	Distribution System-wide: ND-5.1					industrial processes
Dichlorodifluoromethane (Freon 12)	ppb	NL = 1,000	NA	0.5	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Industrial waste discharge
Ethyl-*tert*-butyl ether (ETBE)	ppb	NA	NA	3	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Used as gasoline additive
tert-Amyl-methyl ether (TAME)	ppb	NA	NA	3	Range	ND	ND	ND	ND	ND	
					Average	ND	ND	ND	ND	ND	Used as gasoline additive
tert-Butyl alcohol (TBA)	ppb	NL = 12	NA	2	Range	ND	ND	ND	ND	ND	MTBE breakdown product; used as gasoline
					Average	ND	ND	ND	ND	ND	additive

DEFINITION OF TERMS AND FOOTNOTES

Definition of Terms

AI	Aggressiveness Index
AL	Action Level
Average	Result based on arithmetic mean
$CaCO_3$	Calcium Carbonate
CFU	Colony-Forming Units
DBP	Disinfection Byproducts
DLR	Detection Limits for Purposes of Reporting
LRAA	Locational Running Annual Average; highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all samples collected within a 12-month period
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MFL	Million Fibers per Liter
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
NA	Not Applicable
ND	Not Detected
NL	Notification Level to SWRCB
NTU	Nephelometric Turbidity Units
pCi/L	picoCuries per Liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (µg/L)
ppq	parts per quadrillion or picograms per liter (pg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
RAA	Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period
Range	Results based on minimum and maximum values
SI	Saturation Index (Langelier)
SWRCB	State Water Resources Control Board
TON	Threshold Odor Number
TT	Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water
µS/cm	microSiemen per centimeter; or micromho per centimeter

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MBAS	Methylene Blue Active Substances				ppm		parts per million or milligrams per liter (mg/L)					(µmho/cm)

Footnotes

(a) As a Primary Standard, the turbidity levels of the filtered water were less than or equal to 0.3 NTU in 95% of the online measurements taken each month and did not exceed 1 NTU for more than one hour. Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance.
The turbidity levels for grab samples at these locations were in compliance with the Secondary Standard.

(b) Total coliform MCL: No more than 5.0% total coliform-positive samples in a month. Compliance is based on the combined distribution system sampling from all of the treatment plants. Three total coliform-positive samples were found out of the 7,106 samples analyzed in 2016. The MCL was not violated.

(c) Acute total coliform (*E. coli)* MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains *E. coli,* constitutes an acute MCL violation. No samples were *E. coli*-positive and the MCL was not violated.

(d) Total coliform TT trigger, Level 1 assessments, and total coliform TT violations: More than 5.0% total coliform-positive samples in a month trigger Level 1 assessments. Failure to conduct assessments and correct findings within 30 days is a total coliform violation.
No triggers, Level 1 assessments, or violations occurred.

(e) *E. coli* MCL and Level 2 TT triggers for assessments: Routine and repeat samples are total coliform-positive and either sample is *E. coli*-positive or system fails to collect all repeat samples following an *E. coli*-positive sample, or fails to test for *E. coli* when the repeat sample is total coliform-positive. No samples were *E. coli*-positive. No MCLs violations or no assessments occurred.

(f) All distribution system samples collected had detectable total chlorine residuals and no HPC was required. (f') HPC reporting level is 1 CFU/mL. Values are based on monthly median per State guidelines and recommendations.

(g) Data are from samples collected in 2015. Metropolitan's required triennial monitoring (2017-2019) will be performed in 2018.

(h) Data are from samples collected in 2011 and reported once every nine-year compliance cycle until the next samples are collected.

(i) Metropolitan's chromium VI reporting level is 0.03 ppb, which is below the state DLR of 1 ppb. Data above Metropolitan's reporting level but below the DLR are reported as ND in this report. These data are available upon request.

(j) As a wholesaler, Metropolitan has no retail customers and is not required to collect samples at the consumers' tap under the Lead and Copper Rule. Results are based from annual compliance monitoring.

(k) Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements.

(l) Metropolitan's perchlorate reporting level is 0.1 ppb, which is below the state DLR of 4 ppb. Data above Metropolitan's reporting level but below the DLR are reported as ND in this report. These data are available upon request.

(m) Data are from samples collected (triennially) during four consecutive quarters of monitoring in 2014 and reported for three years until the next samples are collected.

(n) SWRCB considers 50 pCi/L to be the level of concern for beta particles.

(o) These data represent the treatment plant specific core locations per the State approved monitoring plan. For the Jensen service area, the data for the B-5 location were excluded when served by the Weymouth treatment plant.

(p) These data represent the Locational Running Annual Average (LRAA) of all data collected at distribution system-wide monitoring locations.

(q) No MCL exceedance occurred. Compliance with State and Federal Bromate MCL is based on RAA.

(r) Noncompliance monthly percentage of coliform-positive samples analyzed at each treatment plant.

(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 index = non-corrosive; tendency to precipitate and/or deposit scale on pipes
Negative SI index = corrosive; tendency to dissolve calcium carbonate