Three Valleys Municipal Water District
2013 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	REGULATORY STANDARDS			
		Range/Average	Range/Average	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Major Sources in Drinking Water
SOURCE WATER							
% of State Project Water		0-98%	*96.58%*	NA	NA	NA	
% of Groundwater			*3.42%*				
PRIMARY STANDARDS - Mandatory Health-Related Standards							
CLARITY							
Combined Filter Effluent Turbidity (a)	NTU % ≤ 0.3	**0.05 (highest)** **100%**	***0.07 (highest)*** ***100%***	**TT=1** **TT (a)**	**NA**	**NA**	Soil runoff
MICROBIOLOGICAL							
Total Coliform Bacteria (b)	%	**ND - 0.2/ND** distribution system-wide	***N - 1.5/ND*** distribution system-wide	**5.0**	**(0)**	**NA**	Naturally present in the environment
Fecal Coliform/*E.coli* (c)	(c)	**ND** distribution system-wide	***ND*** distribution system-wide	**(C)**	**(0)**	**NA**	Human and animal fecal waste
Heterotrophic Plate Count (d)	CFU/ mL	**TT**	***TT***	**TT**	**NA**	**NA**	Naturally present in the environment
Cryptosporidium	Oocyst 200 L	**ND**	***ND***	**TT**	**(0)**	**NA**	Human and animal fecal waste
Giardia	Cysts 200 L	**ND**	***ND***	**TT**	**(0)**	**NA**	Human and animal fecal waste
ORGANIC CHEMICALS							
Pesticides/PCBs	*Units*						
Alachlor	ppb	**ND**	***ND***	**2**	**4**	**1**	Runoff from herbicide used on row crops
Atrazine	ppb	**ND**	***ND***	**1**	**0.15**	**0.5**	Runoff from herbicide used on row crops and along highways
Bentazon	ppb	**ND**	***ND***	**18**	**200**	**2**	Runoff/leaching from herbicide used on rice, alfalfa, grapes
Carbofuran	ppb	**ND**	***ND***	**18**	**1.7**	**5**	Leaching of soil fumigant used on rice, alfalfa and grapes
Chlordane	ppt	**ND**	***ND***	**100**	**30**	**100**	Residue of banned insecticide
2,4-D	ppb	**ND**	***ND***	**70**	**20**	**10**	Runoff from herbicide used on row crops, range land, lawns
Dalapon	ppb	**ND**	***ND***	**200**	**790**	**10**	Runoff from herbicide used on rights of way, crops and landscapes
Dibromochloropropane (DBCP)	ppt	**ND**	***ND***	**200**	**1.7**	**10**	Banned nematocide that may still be present in soils due to runoff/leaching
Dinoseb	ppb	**ND**	***ND***	**7**	**14**	**2**	Runoff from herbicide used on soybeans, vegetables and fruits
Diquat	ppb	**ND**	***ND***	**20**	**15**	**4**	Runoff from herbicide used for terrestrial and aquatic weeds
Endothall	ppb	**ND**	***ND***	**100**	**580**	**45**	Runoff from herbicide used for terrestrial and aquatic weeds
Endrin	ppb	**ND**	***ND***	**2**	**1.8**	**0.1**	Residue of banned insecticide and rodenticide
Ethylene dibromide (EDB)	ppt	**ND**	***ND***	**50**	**10**	**20**	Discharge from petroleum refineries; underground gas tank leaks
Glyphosate	ppb	**ND**	***ND***	**700**	**900**	**25**	Runoff from herbicide use
Heptachlor	ppt	**ND**	***ND***	**10**	**8**	**10**	Residue of banned insecticide
Heptachlor Epoxide	ppt	**ND**	***ND***	**10**	**6**	**10**	Breakdown product of heptachlor
Lindane	ppt	**ND**	***ND***	**200**	**32**	**200**	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	ppb	**ND**	***ND***	**30**	**0.09**	**10**	Runoff/leaching from insecticide uses
Molinate (Ordram)	ppb	**ND**	***ND***	**20**	**1**	**2**	Runoff/leaching from herbicide used on rice
Oxamyl (Vydate)	ppb	**ND**	***ND***	**50**	**26**	**20**	Runoff/leaching from insecticide uses
Pentachlorophenol (PCP)	ppb	**ND**	***ND***	**1**	**0.3**	**0.2**	Discharge from wood preserving factories & other insecticide uses
Picloram	ppb	**ND**	***ND***	**500**	**500**	**1**	Herbicide runoff
Polychlorinated Biphenyls (PCBs)	ppt	**ND**	***ND***	**500**	**90**	**500**	Runoff from landfills; discharge of waste chemicals
Simazine	ppb	**ND**	***ND***	**4**	**4**	**1**	Herbicide runoff
2,4,5-TP (Silvex)	ppb	**ND**	***ND***	**50**	**25**	**1**	Residue of banned herbicide
Thiobencarb (e)	ppb	**ND**	***ND***	**70**	**70**	**1**	Runoff/leaching from herbicide used on rice
Toxaphene	ppb	**ND**	***ND***	**3**	**0.03**	**1**	Runoff/leaching from insecticide used on cotton and cattle
Semi-Volatile Organic Chemicals							
Acrylamide	NA	**TT**	***TT***	**TT**	**(0)**	**NA**	Added to water during sewage/wastewater treatment
Benzo(a)pyrene	ppt	**ND**	***ND***	**200**	**7**	**100**	Leaching from linings of water storage tanks and distribution mains
Di(2-ethylhexyl) adipate	ppb	**ND**	***ND***	**400**	**200**	**5**	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	ppb	**ND**	***ND***	**4**	**12**	**3**	Discharge from chemical factories; inert ingredient in pesticides
Epichlorohydrin	NA	**TT**	***TT***	**TT**	**(0)**	**NA**	Water treatment chemical impurities
Hexachlorobenzene	ppb	**ND**	***ND***	**1**	**0.03**	**0.5**	Discharge from metal refineries & agrichemical factories; wastewater chlorination reaction by-product
Hexachlorocyclopentadiene	ppb	**ND**	***ND***	**50**	**50**	**1**	Discharge from chemical factories
2,3,7,8-TCDD (Dioxin)	ppq	**ND**	***ND***	**30**	**0.05**	**5**	Emissions from waste incineration; discharge from chemical factories

Volatile Organic Chemicals

Benzene	ppb	**ND**	***ND***	**1**	**0.15**	**0.5**	Plastic factory discharge; gas tanks and landfill leaching
Carbon Tetrachloride	ppt	**ND**	***ND***	**500**	**100**	**500**	Discharge from chemical plants and other industrial activities
1,2-Dichlorobenzene	ppb	**ND**	***ND***	**600**	**600**	**0.5**	Discharge from industrial chemical factories
1,4-Dichlorobenzene	ppb	**ND**	***ND***	**5**	**6**	**0.5**	Discharge from industrial chemical factories
1,1-Dichloroethane	ppb	**ND**	***ND***	**5**	**3**	**0.5**	Extraction & degreasing solvent; fumigant
1,2-Dichloroethane	ppt	**ND**	***ND***	**500**	**400**	**500**	Discharge from industrial chemical factories
1,1-Dichloroethylene	ppb	**ND**	***ND***	**6**	**10**	**0.5**	Discharge from industrial chemical factories
cis -1,2-Dichloroethylene	ppb	**ND**	***ND***	**6**	**100**	**0.5**	Industrial chemical factory discharge; biodegradation byproduct of TCE/PCE groundwater contamination
trans -1,2-Dichloroethylene	ppb	**ND**	***ND***	**10**	**60**	**0.5**	Industrial chemical factory discharge; biodegradation byproduct of TCE/PCE groundwater contamination
Dichloromethane (methylene chloride)	ppb	**ND**	***ND***	**5**	**4**	**0.5**	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	ppb	**ND**	***ND***	**5**	**0.5**	**0.5**	Discharge from industrial chemical factories; primary component of some fumigants
1,3-Dichloropropene	ppt	**ND**	***ND***	**500**	**200**	**500**	Runoff/leaching from nematocide used on croplands
Ethylbenzene	ppb	**ND**	***ND***	**300**	**300**	**0.5**	Discharge from petroleum refineries; industrial chemical factories
Methyl-*tert* -butyl-ether (MTBE) (e,f)	ppb	**ND**	***ND***	**13**	**13**	**3**	Leaking underground storage tanks; discharge from petroleum and chemical factories
Monochlorobenzene	ppb	**ND**	***ND***	**70**	**200**	**0.5**	Discharge from industrial, agricultural chemical factories and dry-cleaning facilities
Styrene	ppb	**ND**	***ND***	**100**	**0.5**	**0.5**	Discharge from rubber and plastics factories; leaching from landfills
1,1,2,2-Tetrachloroethane	ppb	**ND**	***ND***	**1**	**0.1**	**0.5**	Discharge from industrial, agricultural chemical factories; solvent used in productions of TCE
Tetrachloroethylene (PCE)	ppb	**ND**	***ND***	**5**	**0.06**	**0.5**	Discharge from factories, dry cleaners and auto shops (metal degreaser)
Toluene	ppb	**ND**	***ND***	**150**	**150**	**0.5**	Discharge from petroleum and chemical refineries; underground gas tank leaks
1,2,4-Trichlorobenzene	ppb	**ND**	***ND***	**5**	**5**	**0.5**	Discharge from textile-finishing factories
1,1,1-Trichloroethane	ppb	**ND**	***ND***	**200**	**1000**	**0.5**	Discharge from metal degreasing sites; manufacture of food wrappings
1,1,2-Trichloroethane	ppb	**ND**	***ND***	**5**	**0.3**	**0.5**	Discharge from industrial chemical factories
Trichloroethylene (TCE)	ppb	**ND**	***ND***	**5**	**1.7**	**0.5**	Discharge from metal degreasing sites and other factories
Trichlorofluoromethane (Freon 11)	ppb	**ND**	***ND***	**150**	**700**	**5**	Discharge from industrial factories; degreasing solvent; propellant and refrigerant
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ppm	**ND**	***ND***	**1.2**	**4**	**0.01**	Discharge from metal degreasing sites and other factories; dry-cleaning solvent; refrigerant
Vinyl chloride	ppt	**ND**	***ND***	**500**	**50**	**500**	Leaching from PVC piping; plastics factory discharge; biodegradation byproduct of TCE/PCE groundwater
Xylenes	ppm	**ND**	***ND***	**1.75**	**1.8**	**0.0005**	Discharge from petroleum and chemical refineries; fuel solvent

INORGANIC CHEMICALS

Aluminum (e)	ppb	**95 - 220/180**	***ND***	**1000**	**600**	**50**	Residue from water treatment process; erosion of natural deposits
Antimony	ppb	**ND**	***ND***	**6**	**20**	**6**	Discharge from petroleum refineries; fire retardant; solder; electronics
Arsenic	ppb	**ND**	***ND***	**10**	**0.004**	**2**	Erosion of natural deposits; glass & electronics production wastes
Asbestos	MFL	**ND**	***ND***	**7**	**7**	**0.2**	Internal corrosion of asbestos cement pipes; erosion of natural deposits
Barium	ppb	**ND**	***ND***	**1000**	**2000**	**100**	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium	ppb	**ND**	***ND***	**4**	**1**	**1**	Discharge from metal refineries; electrical, aerospace and defense industries
Cadmium	ppb	**ND**	***ND***	**5**	**0.04**	**1**	Internal corrosion of galvanized pipes; erosion of natural deposits; runoff from waste batteries and paints
Chromium	ppb	**ND**	***ND***	**50**	**(100)**	**10**	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Copper (e, k)	ppm	**ND**	***ND***	**AL=1.3**	**0.3**	**0.05**	Internal corrosion of household pipes; erosion of natural deposits; leaching from wood preservatives
Cyanide	ppb	**ND**	***ND***	**150**	**150**	**100**	Discharge from steel/metal, plastic and fertilizer factories
Fluoride (j)	ppm	**0.7 - 1.0/0.8** (treatment related)	***0.15*** (naturally occurring)	**2**	**1**	**0.1**	Erosion of natural deposits; water additive that promotes strong teeth
Lead (k)	ppb	**ND**	***ND***	**AL=15**	**0.2**	**5**	Internal corrosion of household pipes erosion of natural deposits
Mercury	ppb	**ND**	***ND***	**2**	**1.2**	**1**	Erosion of natural deposits; discharge from factories; runoff from landfills
Nickel	ppb	**ND**	***ND***	**100**	**12**	**10**	Erosion of natural deposits; discharge from metal factories
Nitrate (as N) (g)	ppm	**0.5**	***0.45 - 0.64/0.56***	**10**	**10**	**0.4**	Runoff & leaching from fertilizer use; leaching from sewage; erosion of natural deposits
Nitrite (as N)	ppm	**ND**	***ND***	**1**	**1**	**0.4**	Runoff & leaching from fertilizer use; leaching from sewage; erosion of natural deposits
Perchlorate	ppb	**ND**	***ND***	**6**	**6**	**4**	Inorganic chemical used in rocket propellant, fireworks, explosives
Selenium	ppb	**ND**	***ND***	**50**	**30**	**5**	Discharge from petroleum refineries, mines; erosion of natural deposits
Thallium	ppb	**ND**	***ND***	**2**	**0.1**	**1**	Leaching from ore-processing sites; discharge from electronics factories

RADIOLOGICALS

		(r)	2013				
Gross Alpha Particle Activity	pCi/L	**ND - 3/ND**	***9.8***	**15**	**(0)**	**3**	Erosion of natural deposits
Gross Beta Particle Activity (h)	pCi/L	**ND - 6/4**	***ND - 4.2/ND***	**50**	**(0)**	**4**	Decay of natural and man-made deposits
Combined Radium (i)	pCi/L	**ND**	***ND***	**5**	**(0)**	**NA**	Erosion of natural deposits
Radium 226	pCi/L	**ND**	***ND***	**NA**	**0.05**	**1**	Erosion of natural deposits
Radium 228	pCi/L	**ND**	***ND***	**NA**	**0.019**	**1**	Erosion of natural deposits
Strontium-90	pCi/L	**ND**	***ND***	**8**	**0.35**	**2**	Decay of natural and man-made deposits
Tritium	pCi/L	**ND**	***105***	**20,000**	**400**	**1,000**	Decay of natural and man-made deposits
Uranium	pCi/L	**1-2/2**	***ND***	**20**	**0.43**	**1**	Erosion of natural deposits

DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS

Total Trihalomethanes (TTHM) (m)	ppb	**12 - 60/58** Distribution system-wide	***36.20 - 78.7/48.06*** Distribution system-wide	**80**	**NA**	**1**	By-product of drinking water disinfection

Haloacetic Acids (HAA5) (m)	ppb	**ND - 22/18** Distribution system-wide	***4.01 - 26.5/16.3*** Distribution system-wide	**60**	**NA**	**1**	By-product of drinking water disinfection
Total Chlorine Residual	ppm	**ND - 2.9/2.3** Distribution system-wide	***2.53 - 2.73/2.66*** Distribution system-wide	**[4.0]**	**[4.0]**	**NA**	Drinking water disinfectant added for treatment
DBP Precursor Control (TOC) (q)	ppm	**TT**	***1.27***	**TT**	**NA**	**0.30**	Various natural and man-made sources

SECONDARY STANDARDS - Aesthetic Standards							
Aluminum (e)	ppb	**95 - 220/180**	***ND***	**200**	**600**	**50**	Residue from water treatment processes; natural deposits, erosion
Chloride	ppm	**84 - 91/88**	***76***	**500**	**NA**	**NA**	Runoff/leaching from natural deposits; seawater influence
Color	units	**1**	***ND***	**15**	**NA**	**NA**	Naturally occurring organic materials
Copper (e, f)	ppm	**ND**	***ND***	**1**	**0.3**	**0.05**	Internal corrosion of household pipes; natural deposits erosion; wood preservatives leaching
Foaming Agents-MBAS	ppb	**ND**	***ND***	**500**	**NA**	**NA**	Municipal and industrial waste discharges
Iron	ppb	**ND**	***ND***	**300**	**NA**	**100**	Leaching from natural deposits; industrial wastes
Manganese	ppb	**ND**	***ND***	**50**	**NL=500**	**20**	Leaching from natural deposits
Methyl tert-butyl-ether (MTBE) (e,f)	ppb	**ND**	***ND***	**5**	**13**	**3**	Gasoline discharges from watercraft engines
Odor Threshold (s)	TON	**3 - 6/4**	***1***	**3**	**NA**	**1**	Naturally occurring organic materials
Silver	ppb	**ND**	***ND***	**100**	**NA**	**10**	Industrial discharges
Specific Conductance	µS/cm	**850 - 890/870**	***540***	**1,600**	**NA**	**NA**	Substances that form ions when in water; seawater influence
Sulfate	ppm	**170 - 190/180**	***51***	**500**	**NA**	**0.5**	Runoff/leaching from natural deposits; industrial wastes
Thiobencarb (e)	ppb	**ND**	***ND***	**1**	**70**	**1**	Runoff/leaching from rice herbicide
Total Dissolved Solids	ppm	**520 - 540/530**	***320***	**1,000**	**NA**	**NA**	Runoff/leaching from natural deposits; seawater influence
Turbidity (Monthly) (a)	NTU	**ND**	***0.03 - 0.08/0.04***	**5**	**NA**	**NA**	Soil runoff
Zinc	ppm	**ND**	***ND***	**5.0**	**NA**	**0.05**	Runoff/leaching from natural deposits; industrial wastes

FEDERAL UNREGULATED CONTAMINANTS MONITORING RULE (UCMR2) (p)							
List 1 - Assessment Monitoring		Feb 2009 - Aug 2009	Apr 2009 - Jan 2010				
Dimethoate	ppb	**ND**	***ND***	**NA**	**NA**	**0.7**	Runoff from insecticide used on crops and residential uses
Terbos sulfone	ppb	**ND**	***ND***	**NA**	**NA**	**0.4**	Runoff/leaching from breakdown products of terbufos used as soil fumigant and nematocide
2,2',4,4'-tetrabromodiphenyl ether	ppb	**ND**	***ND***	**NA**	**NA**	**0.3**	Discharge from industrial chemical factories; use of flame retardant additives
2,2',4,4',5-pentabromodiphenyl ether	ppb	**ND**	***ND***	**NA**	**NA**	**0.9**	Discharge from industrial chemical factories; use of flame retardant additives
2,2'4,4'5,5'-hexabromobiphenyl	ppb	**ND**	***ND***	**NA**	**NA**	**0.7**	Discharge from industrial chemical factories; use of flame retardant additives
2,2',4,4',5,5'-hexabromodiphenyl ether	ppb	**ND**	***ND***	**NA**	**NA**	**0.8**	Discharge from industrial chemical factories; use of flame retardant additives
2,2',4,4',6-pentabromodiphenyl ether	ppb	**ND**	***ND***	**NA**	**NA**	**0.5**	Discharge from industrial chemical factories; use of flame retardant additives
1,3-dinitrobenzene	ppb	**ND**	***ND***	**NA**	**NA**	**0.8**	Runoff/residue from explosives, by-product of TNT, used in manufacture of dyes
2,4,6-trinitroluene (TNT)	ppb	**ND**	***ND***	**NA**	**NA**	**0.8**	Runoff/residue from explosives, propellants; chemical manufacture of dyes
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	ppb	**ND**	***ND***	**NA**	**NA**	**1.0**	Runoff/residue from explosives, fireworks and demolition blocks; used in rodenticide

List 2 - Screening Survey		Feb 2009 - Aug 2009	Apr 2009 - Jan 2010				
Acetochlor	ppb	**ND**	***ND***	**NA**	**NA**	**2.0**	Herbicide runoff
Alachlor	ppb	**ND**	***ND***	**NA**	**NA**	**2.0**	Herbicide runoff
Metolachlor	ppb	**ND**	***ND***	**NA**	**NA**	**1.0**	Herbicide runoff from weed control, crops residential uses
Acetochlor ethane sulfonic acid	ppb	**ND**	***ND***	**NA**	**NA**	**1.0**	Degradation product of acetochlor
Acetochlor oxanilic acid	ppb	**ND**	***ND***	**NA**	**NA**	**2.0**	Degradation product of acetochlor
Alachlor ethane sulfonic acid	ppb	**ND**	***ND***	**NA**	**NA**	**1.0**	Degradation product of alachlor
Alachlor oxanilic acid	ppb	**ND**	***ND***	**NA**	**NA**	**2.0**	Degradation product of alachlor
Metolachlor ethane sulfonic acid	ppb	**ND**	***ND***	**NA**	**NA**	**1.0**	Degradation product of metolachlor
Metolachlor oxanilic acid	ppb	**ND**	***ND***	**NA**	**NA**	**2.0**	Degradation product of metolachlor
N-nitrosodiethylamine (NDEA)	ppb	**ND**	***ND***	**NA**	**NA**	**0.005**	By-product of drinking water chloramination; industrial processes
N-nitrosodimethylamine (NDMA)	ppb	**ND-0.003/ND**	***ND***	**NA**	**NA**	**0.002**	By-product of drinking water chloramination; industrial processes
N-nitroso-di-n-butylamine (NDBA)	ppb	**ND**	***ND***	**NA**	**NA**	**0.004**	By-product of drinking water chloramination; industrial processes
N-nitroso-di-n-propylamine (NDPA)	ppb	**ND**	***ND***	**NA**	**NA**	**0.007**	By-product of drinking water chloramination; industrial processes
N-nitrosomethylethylamine (NMEA)	ppb	**ND**	***ND***	**NA**	**NA**	**0.003**	By-product of drinking water chloramination; industrial processes
N-nitrosopyrrolidine (NPYR)	ppb	**ND**	***ND***	**NA**	**NA**	**0.002**	By-product of drinking water chloramination; industrial processes

OTHER PARAMETERS							
Alkalinity	ppm	**110**	***86 - 92/88***	**NA**	**NA**	**NA**	Measure of water quality
Boron	ppb	**150**	***210***	**NL=1,000**	**NA**	**100**	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	**56 - 61/58**	***31***	**NA**	**NA**	**NA**	Measure of water quality
Chlorate	ppb	**62**	***ND***	**NL=800**	**NA**	**20**	By-product of drinking water chlorination; industrial processes
Chromium VI (l)	ppb	**ND**	***ND***	**NA**	**0.02**	**1**	Industrial waste discharge; could be naturally present as well
Corrosivity (o) (as Aggressiveness Index)	AI	**12.3**	***12.08 - 12.25/12.17***	**NA**	**NA**	**NA**	Elemental balance in water; affected by temperature, other factors
Corrosivity (n) (as Saturation Index)	SI	**0.35 - 0.45/0.40**	***0.26-1.8/0.65***	**NA**	**NA**	**NA**	Elemental balance in water; affected by temperature, other factors
Hardness (total)	ppm	**230 - 250/240**	***120***	**NA**	**NA**	**NA**	Measure of water quality
Magnesium	ppm	**21 - 23/22**	***12***	**NA**	**NA**	**NA**	Measure of water quality
pH	pH units	**8.1**	***8.3 - 8.53/8.41***	**NA**	**NA**	**NA**	Measure of water quality
Potassium	ppm	**4.0 - 4.3-4.2**	***1.3 - 2.6/1.95***	**NA**	**NA**	**NA**	Measure of water quality
Radon	pCi/L	**ND**	***NR***	**NA**	**NA**	**100**	Naturally occurring, comes from decay of uranium in nearly all soils
Sodium	ppm	**79 - 85/82**	***58***	**NA**	**NA**	**NA**	Measure of water quality
Total organic carbon (TOC)	ppm	**21 - 2.7-2.4**	***1.2 - 2.4/1.9***	**TT**	**NA**	**0.30**	Various natural and man-made sources
Vanadium	ppb	**3.0**	***3.4***	**NL=50**	**NA**	**3**	Naturally occurring; industrial waste discharge
N-Nitrosodimethylamine (NDMA)	ppb	**ND**	***ND***	**NL=10**	**3**	**2**	By-product of drinking water chlorination; industrial processes
Dichlorodifluoromethane (Freon 12)	ppb	**ND**	***ND***	**NL=1,000**	**NA**	**0.5**	Industrial waste discharge
Ethyl-*tert*-butyl-ether (ETBE)	ppb	**ND**	***ND***	**NA**	**NA**	**3**	Used as gasoline additive
tert-Amyl-methyl-ether (TAME)	ppb	**ND**	***ND***	**NA**	**NA**	**3**	Used as gasoline additive
tert-Butyl alcohol (TBA)	ppb	**ND**	***ND***	**NL=12**	**NA**	**2**	MTBE breakdown product; used as gasoline additive
Trichloropropane (1,2,3-TCP)	ppb	**NC**	***ND***	**NL=.005**	**0.0007**	**0.005**	Industrial waste discharge and pesticide uses

KEY TO ABBREVIATIONS

AL	= Action level	NR	= Not Required
CFU/ml	= Colony Forming Units per milliliter	NTU	= Nephelometric Turbidity Units
DBP	= Disinfection By-Products	pCi/L	= PicoCuries per liter
DLR	= Detection Limits for Purposes of Reporting	PHG	= Public Health Goal
MCL	= Maximum Contaminant Level	ppb	= parts per billion/micrograms per liter (ug/L)
MCLG	= Maximum Contaminant Level Goal	ppm	= parts per million/milligrams per liter (mg/L)
MFL	= million fibers per liter	ppq	= parts per quadrillion (pg/L)
MRDL	= Maximum Residual Disinfectant Level	ppt	= parts per trillion/nanograms per liter (ng/L)
MRDLG	= Maximum Residual Disinfectant Level Goal	RAA	= Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a twelve-month period.
MPN	= Most Probable Number		
NA	= Not Applicable	Si	= Saturation Index (Langelier)
NC	= Not Collected	TON	= Threshold Odor Number
ND	= None Detected	TT	= Treatment Technique
NL	= Notification Level		

a) The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at anytime. Turbidity is a measure of the cloudiness of water and is a good indicator of the water quality and filtration performance. The averages and ranges of turbidity shown in the Secondary Standards were based on the treatment plant effluent.

b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. Compliance is based on the combined distribution system. sampling. In 2013, 7,981 samples were analyzed from MWD (3 samples were positive for total colifoms) and 838 samples were analyzed from TVMWD (2 samples were positive for total coliform). The MCL was not violated.

c) *E. coli* MCL: The occurrence of two consecutive total coliform-positive samples, one of which contained *E. coli*, constitutes an acute MCL violation. The MCL was not violated.

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

e) Aluminum, Thiobencarb, Copper and MTBE have both primary and secondary standards.

f) MTBE reporting level for MWD is 0.5 ppb.

g) State MCL is 45 mg/L as Nitrate, which equals 10 mg/L as N.

h) CDPH considers 50 pCi/L to be the level of concern for beta particles; the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body of any internal organ.

i) State MCL is 5 pCi/L for Radium-226 and -228 combined.

j) MWD and TVMWD were in compliance with all provisions of the State's Fluoridation System Requirements.

k) As a wholesaler, MWD and TVMWD are not required to collect samples at the consumers' tap under the Lead and Copper Rule.

l) Chromium VI reporting level (action level) for MWD is 0.03 ppb.

m) In 2013, TVMWD was in compliance with all provisions of the both the Stage 1 and Stage 2 Disinfection/Disinfection By-Products (D/DBP) Rule. From the 4 quarterly distribution samples collected, the running annual average for TTHM was 46.85 ppb and 15.55 ppb for HAA5. Stage 2 of the D/DBPR monitoring began in the 2nd quarter of 2012. Compliance was based on the RAA.

n) SI measures the tendency for a water to precipitate or dissolve calcium carbonate (a natural mineral in water). Water with SI <-2.0 is highly corrosive and would be corrosive to almost all materials found in a typical water system. SI between -2.0 to 0 indicates a balanced water and SI >0.5 is scale forming.

o) AI measures the aggressiveness of water transported through pipes. Water with AI <10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. AI ≥ 12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.

p) Minimum reporting levels are as stipulated in the Federal UCMR 2. List 1 - Assessment Monitoring consists of 10 chemical contaminants for which standard analytical methods were available List 2 - Screening Survey consists of 15 contaminants for which new analytical methods were used. All analysis conducted by contract laboratories. Values listed in State DLR column are Federal minimum reporting levels.

q) Enhanced Coagulation is the optimization of coagulant doses and pH levels to improve precursor removal. If a water system removes specific percentages of TOCs from the source water, its coagulation processes will be considered "enhanced." The levels of finished water TOC removal that are required for a system, based on source water alkalinity and TOC levels, are known as "Step 1." If a conventional filtration plant meets Step 1, they are meeting the TOC removal requirements, practicing enhanced coagulation, and meeting the ultimate goal of the DBP Rule, which is precursor removal.

r) Data collected (triennially) from four consecutive quarters of monitoring in 2011 and reported for three years until the next samples are collected.

s) In April 2013, the Weymouth plant effluent TON exceeded the secondary MCL of 3 TON. Per CDPH requirements, quarterly monitoring was conducted following the secondary MCL