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## STOCO MUTUAL WATER AND SEWER COMPANY 2022 Drinking Water Consumer Confidence Report

#### Water System Information

Water System Name: STOCO MUTUAL WATER AND SEWER COMPANY

Report Date: July 1, 2023

Type of Water Source(s) in Use: WELL

Drinking Water Source Assessment Information: KENNETH SCHMIDT, P.E., DECEMBER 2022.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: N/A

For More Information, Contact: TONY DIAZ, GENERAL MANAGER

#### **About This Report**

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2021 and may include earlier monitoring data.

## Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse STOCO MUTUAL WATER AND SEWER COMPANY a (661) 412-9090 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 STOCO MUTUAL WATER AND SEWER COMPANY以获得中文的帮助: (661) 412-9090.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa STOCO MUTUAL WATER AND SEWER COMPANY o tumawag sa (661) 412-9090 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ STOCO MUTUAL WATER AND SEWER COMPANY tại (661) 412-9090 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau STOCO MUTUAL WATER AND SEWER COMPANY ntawm (661) 412-9090 rau kev pab hauv lus Askiv.

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## STOCO MUTUAL WATER AND SEWER COMPANY 2022 Drinking Water Consumer Confidence Report

## **Terms Used in This Report**

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
Maximum Contaminant Level Goal (MCLG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).
Maximum Residual Disinfectant Level (MRDL)	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (μg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

# Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

## **Regulation of Drinking Water and Bottled Water Quality**

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

## **About Your Drinking Water Quality**

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

#### Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E. coli	N/A	0		0	Human and animal fecal waste

Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

#### Table 1.A. Compliance with Total Coliform MCL

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a month) 0	0			Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	(in the year) 0	0			Human and animal fecal waste

For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL.

#### Table 2. Sampling Results Showing the Detection of Lead and Copper

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead 0.00 ppb	01/30/2021	5	0	0	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper 0.011 ppm	01/30/2021	5	0	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

#### Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium 44 (ppm)	05/062009	N/A	N/A	None	None	Salt present in the water and is generally naturally occurring
Hardness 57 (ppm)	05/062009	N/A	N/A	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

#### Table 4. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (ppm)	12-14-22	1.1		10.0		Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Chromium (ugl)	12-28-21	10		50.0		Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Hexavalent Chromium (ugl)	08-12-14	.82		10.0		Discharge from steel and pulp mills and chrome plating; erosion of natural deposits

#### Table 5. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A	none			
N/A	none			

#### Table 6. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

Microbiological Contaminants (complete if fecal- indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
E. coli	(In the year) 0		0	0	Human and animal fecal waste
Enterococci	(In the year) 0		TT	N/A	Human and animal fecal waste
Coliphage	(In the year) 0		TT	N/A	Human and animal fecal waste

#### Table 7. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A	none			
N/A	none			

#### Table 8. Radioactive Contaminants

Contaminant	Unit Measure -ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Gross Beta Particle Activity	pCi/L	50 <sup>a</sup>	(0)	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Strontium-90	pCi/L	8	0.35	Decay of natural and man-made deposit	Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer.
Tritium	pCi/L	20,000	400	Decay of natural and man-made deposits	Some people who drink water containing tritium in excess of the MCL over many years may have an increased risk of getting cancer.

<sup>a</sup> Effective June 11, 2006, the gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

Contaminant	Unit Measure -ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Gross Alpha Particle Activity	pCi/L	15	(0)	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined Radium 226 & 228	pCi/L	5	(0) <sup>b</sup>	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Total Radium (for nontransient- noncommunity water systems)	pCi/L	5	N/A	Erosion of natural deposits	Some people who drink water containing radium 223, 224, or 226 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium	pCi/L	20	0.43	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

#### Table 9. Inorganic Contaminants

Contaminant	Unit Measure- ment	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects
Aluminum	0.0050 μg /L	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes	Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.
Antimony	2.0 µg/L	6	1	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.
Arsenic	2.0 µg/L	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.
Asbestos	0.00 MFL	7	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

<sup>b</sup> If reporting results for Ra-226 and Ra-228 as individual constituents, the PHG is 0.05 pCi/L for Ra-226 and 0.019 pCi/L for Ra-228.

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Contaminant	Unit Measure- ment	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	H	ealth Effects
Barium	0.023 mg/L	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits	Some peop containing MCL over r	ble who drink water barium in excess of the many years may an increase in blood
Beryllium	1.0 μg/L	4	1	Discharge from me refineries, coal-burr factories, and electr aerospace, and def industries	tal Some ning contain rical, of the	people who drink water ning beryllium in excess MCL over many years evelop intestinal lesions.
Cadmium	1.0 μg/L	5	0.04	Internal corrosion o pipes; erosion of na deposits; discharge electroplating and in chemical factories, refineries; runoff fro batteries and paints	atural from ndustrial and metal om waste	Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage.
Chromium (Total)	10 µg/L	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	Some peop containing the MCL ov experience	ble who use water chromium in excess of ver many years may allergic dermatitis.
Copper	0.011 mg/L	(AL=1.3)	0.3	corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	some people we containing copresentation level ov amount of time gastrointestination who drink water excess of the syears may sufficient damage. People we contain the system of the sys	essential nutrient, but who drink water oper in excess of the er a relatively short a may experience al distress. Some people er containing copper in action level over many fer liver or kidney ple with Wilson's d consult their personal
Cyanide	20 µg/L	150	150	Discharge from steel/metal, plastic and fertilizer factories	Some peop containing MCL over i	ble who drink water cyanide in excess of the many years may nerve damage or blems.
Fluoride	0.073 mg/L	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some peop containing federal MC years may including p the bones. water conta of the state mottled tee	ble who drink water fluoride in excess of the L of 4 mg/L over many get bone disease, ain and tenderness of Children who drink aining fluoride in excess MCL of 2 mg/L may get oth.
Lead	1.0 μg/L	(AL=15)	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	water conta the action I delays in th developme slight defic learning ab this water of	I children who drink aining lead in excess of evel may experience heir physical or mental ent. Children may show its in attention span and bilities. Adults who drink over many years may dney problems or high sure.
Mercury (Inorganic)	0.2	2	1.2	Erosion of natural deposits; discharge from refineries and	Some peop containing	ble who drink water mercury in excess of the many years may

Contaminant	Unit Measure- ment	MCL (AL) TT, as noted	PHG (MCLG)	Major Sour of Contamina	tion	Health Effects
	µg/L			factories; runo from landfills a cropland		experience mental disturbances, or impaired physical coordination, speech and hearing.
Nickel	10 µg/L	100	12	Erosion of natu deposits; disch from metal factories		Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.
Nitrate (as Nitrogen, N)	1.2 mg/L	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	drink v the Mi and, if nitrate capac oxyge breath nitrate	s below the age of six months who water containing nitrate in excess of CL may quickly become seriously ill f untreated, may die because high e levels can interfere with the sity of the infant's blood to carry en. Symptoms include shortness of and blueness of the skin. High e levels may also affect the oxygen- ng ability of the blood of pregnant
Nitrite (as nitrogen, N)	0.050 mg/L	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks ar sewage; erosic natural deposi	on of	Infants below the age of six months who drink water containing nitrite in excess of the MCL may quickly become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin.
Perchlorate	4 µg/L	6	1	Perchlorate is inorganic chen in solid rocket propellant, fire explosives, fla matches, and of industries. gets into drinki as a result of environmental contamination historic aerosp other industria operations tha use, store, or o perchlorate an salts.	an nical us works, res, a variet It usuall ing wate from pace or I t used o dispose	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse affects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed
Selenium	2.0 µg/L	50	30	Discharge from petroleum, gla metal refinerie erosion of natu deposits; disch from mines an chemical manufacturers from livestock (feed additive)	ss, and s; ural harge d ; runoff lots	who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems.
Thallium	0.00 µg/L	2	0.1	Leaching from processing site discharge from electronics, gla and drug facto	es; n ass,	Some people who drink water containing thallium in excess of the MCL over many years may experience hair loss, changes in their blood, or kidney, intestinal, or liver problems.

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#### Table 10. Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
2,4-D	µg/L	70	20	Runoff from herbicide used on row crops, range land, lawns, and aquatic weeds	Some people who use water containing the weed killer 2,4-D in excess of the MCL over many years may experience kidney, liver, or adrenal gland problems.
2,4,5-TP (Silvex)	µg/L	50	3	Residue of banned herbicide	Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems.
Acrylamide		TT	(0)	Added to water during sewage/wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time may experience nervous system or blood problems, and may have an increased risk of getting cancer.
Alachlor	µg/L	2	4	Runoff from herbicide used on row crops	Some people who use water containing alachlor in excess of the MCL over many years may experience eye, liver, kidney, or spleen problems, or experience anemia, and may have an increased risk of getting cancer.
Atrazine	µg/L	1	0.15	Runoff from herbicide used on row crops and along railroad and highway right-of-ways	Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties.
Bentazon	µg/L	18	200	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses	Some people who drink water containing bentazon in excess of the MCL over many year may experience prostate and gastrointestinal effects.
Benzo(a)pyrene (PAH)	ng/L	200	7	Leaching from linings of water storage tanks and distribution mains	Some people who use water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran	µg/L	18	0.7	Leaching of soil fumigant used on rice and alfalfa, and grape vineyards	Some people who use water containing carbofuran in excess of the MCL over many years may experience problems with their blood, or nervous or reproductive system problems.
Chlordane	ng/L	100	30	Residue of banned insecticide	Some people who use water containing chlordane in excess of the MCL over many years may experience liver or nervous system problems, and may have an increased risk of getting cancer.
Dalapon	µg/L	200	790	Runoff from herbicide used on rights-of-ways, and crops and landscape maintenance	Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes.

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Di(2-ethylhexyl) adipate	µg/L	400	200	Discharge from chemical factories	Some people who drink water containing di(2-ethylhexyl) adipate in excess of the MCL over many years may experience weight loss, liver enlargement, or possible reproductive difficulties.
Di(2-ethylhexyl) phthalate	µg/L	4	12	Discharge from rubber and chemical factories; inert ingredient in pesticides	Some people who use water containing di(2-ethylhexyl) phthalate in excess of the MCL over many years may experience liver problems or reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropa ne (DBCP)	ng/L	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	Some people who use water containing DBCP in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb	µg/L	7	14	Runoff from herbicide used on soybeans, vegetables, and fruits	Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties.
Dioxin (2,3,7,8- TCDD)	pg/L	30	0.05	Emissions from waste incineration and other combustion; discharge from chemical factories	Some people who use water containing dioxin in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Diquat	µg/L	20	6	Runoff from herbicide use for terrestrial and aquatic weeds	Some people who drink water containing diquat in excess of the MCL over many years may get cataracts.
Endothall	µg/L	100	94	Runoff from herbicide use for terrestrial and aquatic weeds; defoliant	Some people who drink water containing endothall in excess of the MCL over many years may experience stomach or intestinal problems.
Endrin	µg/L	2	0.3	Residue of banned insecticide and rodenticide	Some people who drink water containing endrin in excess of the MCL over many years may experience liver problems.
Epichlorohydrin		TT	(0)	Discharge from industrial chemical factories; impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time may experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (EDB)	ng/L	50	10	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops	Some people who use water containing ethylene dibromide in excess of the MCL over many years may experience liver, stomach, reproductive system, or kidney problems, and may have an increased risk of getting cancer.

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Glyphosate	µg/L	700	900	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidney problems or reproductive difficulties.
Heptachlor	ng/L	10	8	Residue of banned insecticide	Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide	ng/L	10	6	Breakdown of heptachlor	Some people who use water containing heptachlor epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene	µg/L	1	0.03	Discharge from metal refineries and agricultural chemical factories; byproduct of chlorination reactions in wastewater	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years may experience liver or kidney problems, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopen tadiene	µg/L	50	2	Discharge from chemical factories	Some people who use water containing hexachlorocyclopentadiene in excess of the MCL over many years may experience kidney or stomach problems.
Lindane	ng/L	200	32	Runoff/leaching from insecticide used on cattle, lumber, and gardens	Some people who drink water containing lindane in excess of the MCL over many years may experience kidney or liver problems.
Methoxychlor	µg/L	30	0.09	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years may experience reproductive difficulties.
Molinate (Ordram)	µg/L	20	1	Runoff/leaching from herbicide used on rice	Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects.
Oxamyl (Vydate)	µg/L	50	26	Runoff/leaching from insecticide used on field crops, fruits and ornamentals, especially apples, potatoes, and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years may experience slight nervous system effects.
PCBs (Polychlorinated biphenyls)	ng/L	500	90	Runoff from landfills; discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years may experience changes in their skin, thymus gland problems, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol	µg/L	1	0.3	Discharge from wood preserving	Some people who use water containing pentachlorophenol in

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				factories, cotton and other insecticidal/herbicida I uses	excess of the MCL over many years may experience liver or kidney problems, and may have an increased risk of getting cancer.
Picloram	µg/L	500	166	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems.
Simazine	µg/L	4	4	Herbicide runoff	Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.
Thiobencarb	µg/L	70	42	Runoff/leaching from herbicide used on rice	Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects.
Toxaphene	µg/L	3	0.03	Runoff/leaching from insecticide used on cotton and cattle	Some people who use water containing toxaphene in excess of the MCL over many years may experience kidney, liver, or thyroid problems, and may have an increased risk of getting cancer.
1,2,3- Trichloropropane	ng/L	5	0.7	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides.	Some people who drink water containing 1,2,3-trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

### Table 11. Volatile Organic Contaminants

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects
Benzene	µg/L	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills	Some people who use water containing benzene in excess of the MCL over many years may experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride	ng/L	500	100	Discharge from chemical plants and other industrial activities	Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichlorobenzene	µg/L	600	600	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichlorobenzene in excess of the MCL over many

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects
					years may experience liver, kidney, or circulatory system problems.
1,4-Dichlorobenzene	µg/L	5	6	Discharge from industrial chemical factories	Some people who use water containing 1.4-dichlorobenzene in excess of the MCL over many years may experience anemia, liver, kidney, or spleen damage, or changes in their blood.
1,1-Dichloroethane	µg/L	5	3	Extraction and degreasing solvent; used in the manufacture of pharmaceuticals, stone, clay, and glass products; fumigant	Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems.
1,2-Dichloroethane	ng/L	500	400	Discharge from industrial chemical factories	Some people who use water containing 1,2- dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene	µg/L	6	10	Discharge from industrial chemical factories	Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems.
cis-1,2- Dichloroethylene	µg/L	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
trans-1,2- Dichloroethylene	µg/L	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination	Some people who drink water containing trans-1,2- dichloroethylene in excess of the MCL over many years may experience liver problems.
Dichloromethane	µg/L	5	4	Discharge from pharmaceutical and chemical factories; insecticide	Some people who drink water containing dichloromethane in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane	µg/L	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants	Some people who use water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
1,3-Dichloropropene	ng/L	500	200	Runoff/leaching from nematocide used on croplands	Some people who use water containing 1,3-dichloropropene in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene	µg/L	300	300	Discharge from petroleum refineries;	Some people who use water containing ethylbenzene in excess of the MCL over many years may

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects
				industrial chemical factories	experience liver or kidney problems.
Methyl- <i>tert</i> -butyl ether	µg/L	13	13	Leaking underground storage tanks; discharges from petroleum and chemical factories	Some people who use water containing methyl- <i>tert</i> -butyl ether in excess of the MCL over many years may have an increased risk of getting cancer.
Monochlorobenzene	µg/L	70	70	Discharge from industrial and agricultural chemical factories and dry cleaning facilities	Some people who use water containing monochlorobenzene in excess of the MCL over many years may experience liver or kidney problems.
Styrene	µg/L	100	0.5	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,1,2,2- Tetrachloroethane	µg/L	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers	Some people who drink water containing 1,1,2,2- tetrachloroethane in excess of the MCL over many years may experience liver or nervous system problems.
Tetrachloroethylene (PCE)	µg/L	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.
1,2,4- Trichlorobenzene	µg/L	5	5	Discharge from textile-finishing factories	Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes.
1,1,1- Trichloroethane	µg/L	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings	Some people who use water containing 1,1,1-trichloroethane in excess of the MCL over many years may experience liver, nervous system, or circulatory system problems.
1,1,2- Trichloroethane	µg/L	5	0.3	Discharge from industrial chemical factories	Some people who use water containing 1,1,2- trichloroethane in excess of the MCL over many years may experience liver, kidney, or immune system problems.
Trichloroethylene (TCE)	µg/L	5	1.7	Discharge from metal degreasing sites and other factories	Some people who use water containing trichloroethylene in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
Toluene	µg/L	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks	Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems.
Trichlorofluorometha ne	µg/L	150	1300	Discharge from industrial factories; degreasing solvent;	Some people who use water containing trichlorofluoromethane in excess of the MCL over many

Contaminant	Unit Measure- ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects
				propellant and refrigerant	years may experience liver problems.
1,1,2-Trichloro- 1,2,2-trifluoroethane	mg/L	1.2	4	Discharge from metal degreasing sites and other factories; dry cleaning solvent; refrigerant	Some people who use water containing 1,1,2-trichloro-1,2,2- trifloroethane in excess of the MCL over many years may experience liver problems.
Vinyl chloride	ng/L	500	50	Leaching from PVC pi discharge from plastic factories; biodegradati byproduct of TCE and groundwater contamin	s containing vinyl chloride in excess of the MCL over PCE many years may have an
Xylenes	mg/L	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent	Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage.

## Table 12. Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

Contaminant	Unit Measure- ment	MCL [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Major Sources of Contamination	Health Effects
TTHMs (Total Trihalomethanes)	µg/L	80	N/A	Byproduct of drinking water disinfection	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
HAA5 (Sum of 5 Haloacetic Acids)	µg/L	60	N/A	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Bromate	µg/L	10	0.1	Byproduct of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Chloramines	mg/L	[MRDL = 4.0 (as Cl <sub>2)</sub> ]	[MRDLG = 4 (as Cl <sub>2)</sub> ]	Drinking water disinfectant added for treatment	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine	mg/L	[MRDL = 4.0 (as Cl <sub>2)</sub> ]	[MRDLG = 4 (as Cl <sub>2</sub> )	Drinking water disinfectant added for treatment	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

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Contaminant	Unit Measure- ment	MCL [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Major Sources of Contamination	Health Effects
Chlorite	mg/L	1.0	0.05	Byproduct of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Chlorine Dioxide	µg/L	[MRDL = 800 (as CIO <sub>2</sub> )]	[MRDLG = 800 (as CIO <sub>2</sub> )]	Drinking water disinfectant added for treatment	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Control of DBP precursors (TOC)		TT	N/A	Various natural and man-made sources	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.