

WATER QUALITY REPORT 2020



HOUSTON
PUBLIC WORKS

HOUSTON WATER QUALITY REPORT | JAN - DEC 2020

The U.S. Environmental Protection Agency (EPA) requires that all drinking water suppliers provide a Drinking Water Quality Report to their customers on an annual basis.

This annual water quality report includes important information regarding drinking water. For assistance in English, please call 311 (713.837.0311).

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al 311 (713.837.0311).

Bảng Báo Cáo Chất Lượng Nước hàng năm này cung cấp thông tin về nước uống. Để được trợ giúp bằng tiếng Việt, xin vui lòng gọi số 311 (713.837.0311).

Ce rapport annuel sur la Qualité de l'Eau fournit des informations sur l'eau potable. Pour de l'assistance en français, appelez le 311 (713.837.0311).

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這份「水質年度報告」提供飲用水方面的資訊。如需中文協助，請撥 311 (713.837.0311)。

The City of Houston delivers drinking water of the highest quality through six community public water systems.

CITY OF HOUSTON PUBLIC WATER SYSTEMS

1 Main System | TX1010013

2 Kingwood | TX1010348

3 Willowchase | TX1011902

4 District 73 | TX1011585

5 District 82 | TX1011593

6 Belleauwoods | TX1011594



PUBLIC PARTICIPATION

There are many opportunities for public participation. Information on Houston City Council meetings is available at houstontx.gov/citysec. To find out more about Houston Water Education & Outreach visit publicworks.houstontx.gov/waterworks.

WATER SOURCES

Customers of Houston Water Main System receive their drinking water from three water purification plants and 40 ground water plants. 16 additional groundwater plants provide for the remaining 5 Houston Water Systems. The City of Houston treats the water according to federal and state standards to remove harmful contaminants.

The sources of drinking water nationwide (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 can be polluted by animals or human activity. Contaminants that may be present in source water include: microbial contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides, which may come from agriculture, storm water run-off, and residential uses; organic chemicals, from industrial or petroleum use; and naturally-occurring radioactive materials. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For concerns with taste, odor or color of drinking water, contact 311 (713.837.0311) or email waterquality@houstontx.gov.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800.426.4791).

UNREGULATED CONTAMINANTS

Unregulated contaminants do not have EPA-established drinking water standards. The purpose of monitoring these contaminants is to assist the EPA in determining if future regulation is warranted. For more information visit epa.gov/dwucmr.

SPECIAL NOTICE

Some people may be more vulnerable to certain microbial contaminants such as *Cryptosporidium*, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. These people should seek advice about drinking water from a physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800.426.4791).

ARSENIC

Houston's Main drinking water contains low levels of arsenic, which is below the state and federal action levels. EPA's standard balances arsenic's possible health effects against the costs of removing it from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and in-home plumbing. The City of Houston is responsible for providing high quality drinking water but cannot control the variety of materials used in in-home plumbing components. When water in your home plumbing has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for one to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800.426.4791) or at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

WATER LOSS

The Infrastructure Leak Index (ILI) measures the efficiency of water loss control efforts. It is calculated by taking the real losses (water lost due to leaks) and dividing them by the unavoidable real losses, the theoretical level of minimum leakage calculated by American Water Works Association Standards. Houston Water's ILI is based on the combination of all six community public water systems. In 2020, Houston Water's ILI was 7.4.

CONTACT US

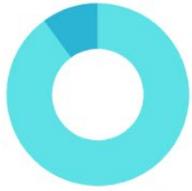
Questions about this report or your water quality? Please email waterquality@houstontx.gov or call 311 (713.837.0311) and ask to speak with a member of the Water Quality team.



Photo by Tim Marshall

MAIN SYSTEM | TX1010013

Ground Water
10%



Surface Water
90%



SURFACE WATER SOURCE

San Jacinto River (Lake Conroe & Lake Houston)
Trinity River (Lake Livingston)



GROUND WATER SOURCE

102 Wells (Evangeline & Chicot Aquifers)
at depths greater than 750 feet



AVERAGE DAILY WATER PRODUCED

437.4M gallons



CUSTOMERS

2.2M

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
Arsenic ¹ (ppb)	10	0	ND	1.1	5
Atrazine (ppb)	3	3	ND	0.18	0.61
Barium (ppm)	2	2	0.04	0.12	0.25
Combined Radium (pCi/L)	5	0	ND	0.52	1.9
Combined Uranium (ppb)	30	0	ND	4.7	14
Cyanide (ppm)	200	200	ND	10	160
Di(2-ethylhexyl)phthalate (ppb)	6	0	ND	0.04	0.69
Ethylbenzene (ppb)	700	700	ND	0.31	9.7
Fluoride (ppm)	4	4	0.11	0.25	0.76
Gross Alpha (pCi/L)	15	0	ND	4.2	13
Gross Beta (pCi/L)	50	0	ND	1.3	4.9
Nitrate (ppm)	10	10	ND	0.18	0.86
Selenium (ppb)	50	50	ND	1.5	17
Simazine (ppb)	4	4	ND	0.04	0.14
Toluene (ppb)	1,000	1,000	ND	0.62	21
Turbidity (NTU)	(TT) 95% of monthly samples ≤ 0.3 NTU	NA	Lowest monthly percentage ≤ 0.3 NTU: 98.9% Highest single measurement: 0.82 NTU		
Xylenes, Total (ppb)	10,000	10,000	ND	2.8	91
MONITORED IN DISTRIBUTION SYSTEM					
Chloramines (disinfectant) (ppm)	4.0 (MRDL)	<4.0 (MRDLG)	0.06	3.2	5.1
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: 30.03 ppb. Individual sample results range from <6.0 ppb (not detected) to 39.3 ppb.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 41.4 ppb. Individual sample results range from 2.4 ppb to 59.6 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb) 2019 ²	AL = 90% below 15 ppb	0	90% below 4.01 ppb. Two samples above 15 ppb.		
Copper (ppm) 2019 ²	AL = 90% below 1.3 ppm	1.3	90% below 0.13 ppm. No samples above 1.3 ppm.		

MAIN SYSTEM | TX1010013

SECONDARY STANDARDS

Parameter/Substance (units)	Recommended Levels (SMCL)	Detections		
		Minimum	Average	Maximum
Aluminum (ppm)	0.2	ND	0.24	3.4
Chloride (ppm)	250	23	47	188
Copper (ppm)	1	ND	0.01	0.07
Fluoride (ppm)	2	0.11	0.25	0.76
Iron (ppm)	0.3	ND	0.12	1.3
Lead (ppb)	1.5	ND	0.2	1.4
Manganese (ppm)	0.05	ND	0.01	0.07
Ph	6.5 - 8.5	7	7.7	8.5
Sulfate (ppm)	250	5	20.1	50
Total Dissolved Solids (ppm)	500	160	278	552
Total Hardness as CaCO3 (ppm)	NA	56.6	130	175
Zinc (ppm)	5	ND	0.01	0.05

UNREGULATED CONTAMINANTS

Parameter/Substance (units)	Dates Monitored	Minimum	Average	Maximum
O-Toluidine (ppb)	Jan – Dec 2019	ND	0.009	0.011
Germanium (ppb)	Jan – Dec 2019	ND	0.58	1.57
Manganese (ppb)	Jan – Dec 2019	ND	7.8	48.7
Bromide (ppb)	Jan – Dec 2019	ND	228	3130
HAA5 (ppb)	Jan – Dec 2019	0.35	29.99	75.74
HAA6Br (ppb)	Jan – Dec 2019	ND	7.02	13.04
HAA9 (ppb)	Jan – Dec 2019	0.35	35.97	81.33
Total Organic Carbon (ppb)	Jan – Dec 2019	ND	6787	18800
Anatoxin-A (ppb)	Jan – Dec 2019	ND	0.129	0.405

Notes

- 1 For background information regarding Arsenic, please refer to page 4.
- 2 Subject to reduced monitoring requirements. Detected contaminant within the past five years, in the year indicated.



Photo by Steve Johnson

Kingwood | TX1010348



Ground Water
100%



GROUND WATER SOURCE

16 Wells (Evangeline & Chicot Aquifers)
at depths greater than 750 feet



AVERAGE DAILY WATER PRODUCED

7.7M gallons



CUSTOMERS

78.6K

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
Arsenic (ppb) ¹	10	0	ND	0.9	2
Barium (ppm)	2	2	0.25	0.28	0.35
Combined Uranium (ppb)	30	0	ND	0.8	2
Ethylbenzene (ppb)	700	700	ND	2.5	15
Fluoride (ppm)	4	4	0.11	0.13	0.15
Gross Alpha (pCi/L)	15	0	3	3.2	3.3
Toluene (ppb)	1,000	1,000	ND	1.7	9.9
Xylenes, Total (ppb)	10,000	10,000	ND	17.3	102
MONITORED IN DISTRIBUTION SYSTEM					
Chlorine (disinfectant) (ppm)	4.0 (MRDL)	<4.0 (MRDLG)	0.91	1.4	2.7
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: 2.8 ppb. Individual sample results range from <6.0 ppb (not detected) to 5.5 ppb.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 7.55 ppb. Individual sample results range from <6.0 ppb (not detected) to 15.2 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb)	AL = 90% below 15 ppm	0	90% below 3.85 ppb. Two samples above 15 ppb.		
Copper (ppm)	AL = 90% below 1.3 ppm	1.3	90% below 0.165 ppm. No sample above 1.3 ppm.		
SECONDARY STANDARDS					
Parameter/Substance (units)	Recommended Levels (SMCL)	Detections			
		Minimum	Average	Maximum	
Chloride (ppm)	250	19	22.2	28	
Fluoride (ppm)	2	0.11	0.13	0.15	
Iron (ppm)	0.3	ND	0.03	0.48	
Manganese (ppm)	0.05	0.004	0.044	0.094	
pH	6.5 - 8.5	7.5	7.68	7.8	
Sulfate (ppm)	250	4	9	12	
Total Dissolved Solids (ppm)	500	192	209	240	
Copper (ppm)	1	ND	0.03	0.14	
Total Hardness as CaCO ₃ (ppm)	NA	106	124	144	
Zinc (ppm)	5	ND	0.04	0.17	

UNREGULATED CONTAMINANTS

Parameter/Substance (units)	Dates Monitored	Minimum	Average	Maximum
1-Butanol (ppb)	July 2018 - March 2019	ND	2	2
Germanium (ppb)	July 2018 - March 2019	ND	0.32	0.34
Manganese (ppb)	July 2018 - March 2019	3.7	25.9	49
Bromide (ppb)	July 2018 - March 2019	24.2	52.9	162
HAA5 (ppb)	July 2018 - March 2019	ND	1.40	4.85
HAA6Br (ppb)	July 2018 - March 2019	ND	0.79	2.41
HAA9 (ppb)	July 2018 - March 2019	ND	1.93	6.58

Notes

- 1 For background information regarding Arsenic, please refer to page 4.



Photo by catscoming

Photo by Cats Coming

Willowchase | TX1011902



Ground Water
100%



GROUND WATER SOURCE

5 Wells (Evangeline & Chicot Aquifers)
at depths greater than 750 feet



AVERAGE DAILY WATER PRODUCED

2.2M gallons



CUSTOMERS

13.2K

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
2,4-D (ppb)	70	70	ND	0.05	0.3
Arsenic ¹ (ppb) 2019 ²	10	0	2.2 ³		
Barium (ppm) 2019 ²	2	2	0.22	0.25	0.28
Combined Uranium (ppb) 2018 ²	30	0	3.8 ³		
Ethybenzene (ppb)	700	700	ND	0.3	1.6
Fluoride (ppm)	4	4	0.12 ³		
Gross Alpha (pCi/L) 2018 ²	15	0	2.0 ³		
Gross Beta (pCi/L) 2018 ²	50	0	4.5 ³		
Nitrate (ppm)	10	10	0.19	0.2	0.21
Selenium (ppb) 2019 ²	50	50	ND	2.7	5.4
Styrene (ppb)	100	100	ND	0.07	0.5
Toluene (ppb)	1,000	1,000	ND	0.31	1.7
Xylenes, Total (ppb)	10,000	10,000	ND	1.9	11
MONITORED IN DISTRIBUTION SYSTEM					
Chlorine (Disinfectant) (ppm)	4.0 (MRDL)	<4.0 (MRDLG)	0.64	1.3	2.9
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: ND (not detected). All individual sample results were ND.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 2.05 ppb. Individual sample results range from <6.0 ppb (not detected) to 5.8 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb)	AL = 90% below 15 ppm	0	90% below 0 ppb. Two sample above 15 ppb.		
Copper (ppm)	AL = 90% below 1.3 ppm	1.3	90% below 0.276 ppm. No sample above 1.3 ppm.		

SECONDARY STANDARDS				
Parameter/Substance (units)	Recommended Levels (SMCL)	Detections		
		Minimum	Average	Maximum
Chloride (ppm)	250	56	57.7	59
Fluoride (ppm)	2	0.12 ³		
pH	6.5 - 8.5	7.6	7.7	7.8
Total Dissolved Solids (ppm)	500	296	302.3	306
Total Hardness as CaCO ₃ (ppm) 2019 ²	NA	168	171.5	175
Sulfate (ppm)	250	7	7.3	8
UNREGULATED CONTAMINANTS				
Parameter/Substance (units)	Dates Monitored	Minimum	Average	Maximum
Manganese (ppb)	April - October 2018	ND	0.8	0.8
Bromide (ppb)	April - October 2018	113	160	191
HAA5 (ppb)	April - October 2018	ND	0.11	0.63
HAA6Br (ppb)	April - October 2018	ND	0.31	1.09
HAA9 (ppb)	April - October 2018	ND	0.38	1.09

Notes

- 1 For background information regarding Arsenic, please refer to page 4.
- 2 Subject to reduced monitoring requirements. Detected contaminant within the past five years, in the year indicated.
- 3 Only one sample was required to be taken for this analyte in the year indicated.



Photo by Ethan Sykes

District 73 | TX1011585



Ground Water
100%



GROUND WATER SOURCE

2 Wells (Evangeline & Chicot Aquifers)
at depths greater than 750 feet



AVERAGE DAILY WATER PRODUCED

400K gallons



CUSTOMERS

5.5K

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
Barium (ppm)	2	2	0.234 ¹		
Combined Uranium (ppb)	30	0	4 ¹		
Fluoride (ppm)	4	4	0.15	0.17	0.19
Gross Alpha (pCi/L)	15	0	3 ¹		
Nitrate (ppm)	10	10	ND	0.04	0.08
Xylenes, Total (ppb)	10,000	10,000	ND	0.8	1.3
MONITORED IN DISTRIBUTION SYSTEM					
Chlorine (disinfectant)	4.0 (MRDL)	<4.0 (MRDLG)	0.76	1.5	2.05
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: 1.9 ppb. Individual sample results range from <6.0 ppb (not detected) to 1.9 ppb.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 9.6 ppb. Individual sample results range from <6.0 ppb (not detected) to 9.6 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb)	AL = 90% below 15 ppb	0	90% below 5.99 ppb. No sample above 15 ppb.		
Copper (ppm)	AL = 90% below 1.3 ppm	1.3	90% below 0.118 ppm. No sample above 1.3 ppm.		
SECONDARY STANDARDS					
Parameter/Substance (units)	Recommended Levels (SMCL)	Detections			
		Minimum	Average	Maximum	
Chloride (ppm)	250	18	19	20	
Fluoride (ppm)	2	0.15	0.17	0.19	
Iron (ppm)	0.3	0.089 ¹			
Manganese (ppm)	0.05	0.0258 ¹			
pH	6.5 - 8.5	7.7	7.8	7.9	
Sulfate (ppm)	250	4	4.5	5	
Total Dissolved Solids (ppm)	500	179	181	183	
Total Hardness as CaCO ₃ (ppm)	NA	79.3 ¹			

Notes

¹ Only one sample was required to be taken for this analyte during 2020.

District 82 | TX1011593



Ground Water
100%



GROUND WATER SOURCE

2 Wells (Evangeline and Chicot Aquifers)
at depths greater than 750 feet



AVERAGE DAILY WATER PRODUCED

80K gallons



CUSTOMERS

924

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
Barium (ppm) 2018 ¹	2	2	0.2 ²		
Nitrate (ppm)	10	10	0.17 ²		
MONITORED IN DISTRIBUTION SYSTEM					
Chlorine (disinfectant)	4.0 (MRDL)	<4.0 (MRDLG)	0.97	1.5	2
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: 2.7 ppb. Individual sample results range from <6.0 ppb (not detected) to 2.7 ppb.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 32.7 ppb. Individual sample results range from 1 to 32.7 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb) 2019 ¹	AL = 90% below 15 ppb	0	90% below 3.54 ppb. No sample above 15 ppb.		
Copper (ppm) 2019 ¹	AL = 90% below 1.3 ppm	1.3	90% below 0.116 ppm. No sample above 1.3 ppm.		
SECONDARY STANDARDS					
Parameter/Substance (units)	Recommended Levels (SMCL)	Detections			
		Minimum	Average	Maximum	
Chloride (ppm) 2018 ¹	250	15 ²			
Iron (ppm) 2018 ¹	0.3	0.02 ²			
Ph 2018 ¹	6.5 - 8.5	7.7 ²			
Sulfate (ppm) 2018 ¹	250	2 ²			
Total Dissolved Solids (ppm) 2018 ¹	500	176 ²			
Total Hardness as CaCO ₃ (ppm) 2018 ¹	NA	106 ²			

Notes

- 1 Subject to reduced monitoring requirements. Detected contaminant within the past five years, in the year indicated.
- 2 Only one sample was required to be taken for this analyte in the year indicated.

Belleauwoods | TX1011594



Purchased from City of Humble
100%

MIXED SURFACE WATER & GROUND WATER SOURCES



AVERAGE DAILY WATER PRODUCED

280K gallons



CUSTOMERS

351

Parameter/Substance (units) (sampled in 2020 unless noted)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Detections		
			Minimum	Average	Maximum
MONITORED AT WATER PLANTS					
Arsenic ¹ (ppb)	10	0	ND	1.8	7.4
Atrazine (ppb)	3	3	ND	0.06	0.24
Barium (ppm)	2	2	0.129	0.293	0.352
Combined Radium (pCi/L)	5	0	ND	1.6	3.8
Cyanide (ppb)	200	200	ND	10	50
Fluoride (ppm)	4	4	0.13	0.18	0.23
Gross Alpha (pCi/L)	15	0	3	4	5
Gross Beta (pCi/L)	50	0	ND	2.2	4.7
Nitrate (ppm)	10	10	ND	0.21	0.81
Selenium (ppb)	50	50	ND	1	4
Simazine (ppb)	4	4	ND	0.04	0.17
MONITORED IN DISTRIBUTION SYSTEM					
Chloramines (disinfectant)	4.0 (MRDL)	<4.0 (MRDLG)	0.8	1.87	3.7
Haloacetic Acids (ppb)	Yearly Average (LRAA) <60	NA	Highest LRAA: 6.5 ppb. Individual sample results range from 1.2 ppb to 8.5 ppb.		
Total Trihalomethanes (ppb)	Yearly Average (LRAA) <80	NA	Highest LRAA: 10.8 ppb. Individual sample results range from 6.3 ppb to 14.8 ppb.		
MONITORED AT CUSTOMER TAP					
Lead (ppb) 2019 ²	AL = 90% below 15 ppb	0	90% below 0 ppb. No sample above 15 ppb.		
Copper (ppm) 2019 ²	AL = 90% below 1.3 ppm	1.3	90% below 0.364 ppm. No sample above 1.3 ppm.		
SECONDARY STANDARDS					
Parameter/Substance (units)	Recommended Levels (SMCL)	Detections			
		Minimum	Average	Maximum	
Chloride (ppm)	250	31	39	49	
Copper (ppm)	1	ND	0.0023	0.0039	
Fluoride (ppm)	2	0.13	0.18	0.23	
Iron (ppm)	0.3	0.01	0.03	0.04	
Manganese (ppm)	0.05	0.0012	0.0033	0.0088	
pH	6.5 – 8.5	7.3	7.7	7.9	
Sulfate (ppm)	250	8	10.6	16	
Total Dissolved Solids (ppm)	500	189	255.6	288	
Total Hardness as CaCO ₃ (ppm)	NA	73	115	138	
Zinc (ppm)	5	ND	0.047	0.187	

Notes

- 1 For background information regarding Arsenic, please refer to page 4.
- 2 Subject to reduced monitoring requirements. Detected contaminant within the past five years, in the year indicated.

CONTAMINANT SOURCES, DEFINITIONS & ABBREVIATIONS

CONTAMINANT SOURCES

2,4-D	Runoff from herbicide used on row crops
Arsenic	erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine	runoff from herbicide used on row crops
Barium	discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine & Chloramines	water additives used to control microbes
Chromium	discharge from steel and pulp mills; erosion of natural deposits
Combined Radium	erosion of natural deposits
Combined Uranium	erosion of natural deposits
Copper	corrosion of household plumbing systems; erosion of natural deposits
Cyanide	discharge from steel/metal factories; discharge from plastic and fertilizer factories
Di(2-Ethylhexyl)phthalate	Discharge from rubber and chemical factories
Ethylbenzene	Discharge from petroleum refineries
Fluoride	erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha	erosion of natural deposits
Gross Beta	decay of natural and man-made deposits
Lead	corrosion of household plumbing systems; erosion of natural deposits
Nitrate / Nitrite	runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Simazine	herbicide runoff
Styrene	Discharge from rubber and plastic factories; Leaching from landfills
Toluene	Discharge from petroleum factories
Total Haloacetic Acids (HAAs)	by-product of drinking water disinfection
Total Trihalomethanes (TTHMs)	by-product of drinking water disinfection
Turbidity	soil runoff
Xylenes	discharge from petroleum factories; discharge from chemical factories

DEFINITIONS & ABBREVIATIONS

AL	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
HAA5	dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid
HAA6Br	bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, tribromoacetic acid
HAA9	bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid
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 were found
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 Escherichia coli (E. coli) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions
LRAA	Locational Running Annual Average - average of results taken at specific monitoring location during previous four quarters
MCL	Maximum Contaminant Level - highest level of a contaminant allowed. MCLs are set as close to MCLGs using best available treatment technology
MCLG	Maximum Contaminant Level Goal - level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety
MRDL	Maximum Residual Disinfectant Level - 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
MRDLG	Maximum Residual Disinfectant Level Goal - level of drinking water disinfectant below known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants
NA	Not Applicable
ND	Not Detected
NTU	Nephelometric Turbidity Units
pCi/L	Pico Curies per liter (measure of radioactivity)
ppb	Parts Per Billion or micrograms per liter (µg/L)
ppm	Parts Per Million or milligrams per liter (mg/L)
SMCL	Secondary Maximum Contaminant Limit - National Secondary Drinking Water Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects in drinking water. The EPA recommends secondary standards but does not require systems to comply with limits
TT	Treatment Technique - required process intended to reduce the level of a contaminant in drinking water

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