Supplementary Material

Table S1 (a-b): Note: Sample #s and descriptions in red pertain to all fountain samples that exceeded Fe's MCL of .3 mg/L (300 ppb). Sample #s and descriptions in blue pertain to all samples with Fe concentrations below EPA's MCL for Fe.

(a) Bedford Building (1650 Bedford Avenue, Brooklyn, NY 11225)

Sample Number	Location
9192	3rd floor woman's back bathroom faucet
7553	fountain in basement library
7978	1st floor woman's front bathroom faucet
3477	1st floor middle fountain
4040	1st floor library men's bathroom faucet
8321	1st floor library fountain
1243	2nd floor woman's bathroom faucet
9499	3rd floor men's bathroom faucet
2013	1st floor library woman's bathroom faucet
9464	2nd floor woman's middle bathroom faucet
5851	2nd floor front fountain
8743	1st floor woman's back bathroom faucet
1776	2nd floor men's middle bathroom faucet
0917	Library basement men's bathroom faucet
9473	2nd floor men's front bathroom faucet
1123	2nd floor woman's back bathroom faucet
2016	2nd floor middle fountain
3242	1st floor woman's middle bathroom faucet
4563	1st floor front fountain
9731	2nd floor woman's bathroom faucet
2021	library basement woman's bathroom faucet
9491	1st floor men's middle bathroom faucet
4345	1st floor male front bathroom faucet
3643	2nd floor men's back bathroom faucet
1439	2nd floor men's front bathroom faucet
5132	1st floor men's front bathroom faucet
1520	2nd floor woman's front bathroom faucet
0909	1st floor fountain
9174	3rd floor woman's front bathroom faucet
1994	2nd floor back fountain

(b) Carroll Building (1150 Carroll Street, Brooklyn, NY 11225)

Sample Number	Location
222	4th floor back fountain
84	mezzanine floor back fountain
123	1st floor men's bathroom faucet
9800	3rd floor middle fountain
143	basement men's bathroom faucet
1241	2nd floor men's middle bathroom
1830	1st floor men's bathroom faucet
182	3rd floor men's front bathroom faucet

229	2nd floor front fountain
57	3rd floor woman's back bathroom faucet
142	basement fountain
158	portable woman's bathroom faucet
198	4th floor woman's back bathroom faucet
51	3rd floor men's middle bathroom faucet
131	2nd floor men's front bathroom faucet
53	2nd floor men's middle bathroom faucet
121	basement woman's back bathroom faucet
155	portable men's bathroom faucet
130	2nd floor back fountain
162	1st floor fountain
176	4th floor middle fountain
33	3rd floor women's front bathroom faucet
110	3rd floor men's back bathroom faucet
145	2nd floor men's back bathroom faucet
1	3rd floor woman's middle bathroom faucet
213	2nd floor woman's front bathroom faucet
206	Mezzanine floor front fountain

(c) S-Building (1657 Bedford Avenue, Brooklyn, NY 11225)

Sample Number	Location
6446	1st floor woman's bathroom faucet
45	3rd floor fountain
3030	2nd floor men's bathroom faucet
5040	2nd floor woman's bathroom faucet
8674	2nd floor fountain
66	3rd floor men's bathroom faucet
4432	1st floor fountain

(d) AB1 (1638 Bedford Avenue, Brooklyn, NY 11225)

Sample Number	Location
33	3rd floor woman's back bathroom faucet
4568	3rd floor men's back bathroom
9560	C-level men's bathroom faucet
7184	2nd floor women's back bathroom faucet
1516	1st floor front fountain
69	3rd floor woman's bathroom faucet
2012	5th floor men's front bathroom faucet
1842	4th floor men's back bathroom faucet
30	1st floor back fountain
1993	3rd floor men's front bathroom faucet
2020	1st floor woman's front bathroom faucet
5969	5th floor woman's front bathroom faucet
1314	4th floor men's back bathroom faucet
0242	5th floor front fountain
3689	2nd floor men's front bathroom faucet
3535	5th floor woman's bathroom faucet
1639	4th floor men's front bathroom faucet
1992	3rd floor front fountain
80	C-floor woman's back bathroom faucet

38	C-floor back fountain
47	1st floor men's front bathroom faucet
7476	2nd floor front fountain
8493	4th floor woman's back bathroom faucet
40	C-floor woman's front bathroom faucet
7684	3rd floor back fountain
0911	4th floor fountain
1911	2nd floor men's front bathroom faucet
4341	5th floor back fountain
6403	4th floor woman's front bathroom faucet
4646	3rd floor front fountain
97	C-floor woman's back bathroom
2019	4th floor back fountain

National Primary EPA Water Drinking Standards

https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-141

Table S2. Detection Limits for Inorganic Contaminants

Contaminant	MCL (mg/l)	Methodology	Detection limit (mg/l)
Antimony	0.006	Atomic Absorption; Furnace	0.003
		Atomic Absorption; Platform	0.0008[5]
		ICP-Mass Spectrometry	0.0004
		Hydride-Atomic Absorption	0.001
Arsenic	0.010[6]	Atomic Absorption; Furnace	0.001
		Atomic Absorption; Platform—Stabilized Temperature	0.0005[7]
		Atomic Absorption; Gaseous Hydride	0.001
		ICP-Mass Spectrometry	0.0014[8]
Asbestos	7 MFL[1]	Transmission Electron Microscopy	0.01 MFL
Barium	2	Atomic Absorption; furnace technique	0.002
		Atomic Absorption; direct aspiration	0.1
		Inductively Coupled Plasma	0.002 (0.001)
Beryllium	0.004	Atomic Absorption; Furnace	0.0002
		Atomic Absorption; Platform	0.00002[5]
		Inductively Coupled Plasma[2]	0.0003

Contaminant	MCL (mg/l)	Methodology	Detection limit (mg/l)
		ICP-Mass Spectrometry	0.0003
Cadmium	0.005	Atomic Absorption; furnace technique	0.0001
		Inductively Coupled Plasma	0.001
Chromium	0.1	Atomic Absorption; furnace technique	0.001
		Inductively Coupled Plasma	0.007 (0.001)
Cyanide	0.2	Distillation, Spectrophotometric[3]	0.02
		Distillation, Automated, Spectrophotometric[3]	0.005
		Distillation, Amenable, Spectrophotometric[4]	0.02
		Distillation, Selective Electrode[3 4]	0.05
		UV, Distillation, Spectrophotometric[9]	0.0005
		Micro Distillation, Flow Injection, Spectrophotometric[3]	0.0006
		Ligand Exchange with Amperometry[4]	0.0005
Mercury	0.002	Manual Cold Vapor Technique	0.0002
		Automated Cold Vapor Technique	0.0002
Nickel	xl	Atomic Absorption; Furnace	0.001
		Atomic Absorption; Platform	0.0006[5]
		Inductively Coupled Plasma[2]	0.005
		ICP-Mass Spectrometry	0.0005
Nitrate	10 (as N)	Manual Cadmium Reduction	0.01
		Automated Hydrazine Reduction	0.01
		Automated Cadmium Reduction	0.05
		Ion Selective Electrode	1
		Ion Chromatography	0.01
		Capillary Ion Electrophoresis	0.076
Nitrite	1 (as N)	Spectrophotometric	0.01
		Automated Cadmium Reduction	0.05
		Manual Cadmium Reduction	0.01
		Ion Chromatography	0.004
		Capillary Ion Electrophoresis	0.103
Selenium	0.05	Atomic Absorption; furnace	0.002

Contaminant	MCL (mg/l)	Methodology	Detection limit (mg/l)
		Atomic Absorption; gaseous hydride	0.002
Thallium	0.002	Atomic Absorption; Furnace	0.001
		Atomic Absorption; Platform	0.0007[5]
		ICP-Mass Spectrometry	0.0003

Inorganic Chemicals

Chemical Contaminant Rules Summary

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Long-Term Exposure Above the MCL (unless specified as short-term)	Sources of Contaminant in Drinking Water
Antimony	0.006	0.006	Increase in blood cholesterol; decrease in blood sugar	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic • Quick reference guide • Consumer fact sheet	0	0.010 as of 01/23/06	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Asbestos (fiber > 10 micrometers)	7 million fibers per liter (MFL)	7 MFL	Increased risk of developing benign intestinal polyps	Decay of asbestos cement in water mains; erosion of natural deposits
Barium	2	2	Increase in blood pressure	Discharge of drilling wastes;

Contaminant	MCL (mg/l)	Methodology		Detection limit (mg/l)
				discharge from metal refineries; erosion of natural deposits
Beryllium	0.004	0.004	Intestinal lesions	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	0.005	0.005	Kidney damage	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (total)	0.1	0.1	Allergic dermatitis	Discharge from steel and pulp mills; erosion of natural deposits
Copper	1.3	TT[z]; Action Level=1.3	Short term exposure: Gastrointestinal distress Long term exposure: Liver	Corrosion of household plumbing systems; erosion of natural deposits

Contaminant	MCL (mg/l)	Methodology		Detection limit (mg/l)
			or kidney damage People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	
Cyanide (as free cyanide)	0.2	0.2	Nerve damage or thyroid problems	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	4.0	4.0	Bone disease (pain and tenderness of the bones); Children may get mottled teeth	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Lead • Quick reference guide • Rule information	zero	TT[z]; Action Level=0.015	Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities	Corrosion of household plumbing systems; erosion of natural deposits

Contaminant	MCL (mg/l)	Methodology		Detection limit (mg/l)
			Adults: Kidney problems; high blood pressure	
Mercury (inorganic)	0.002	0.002	Kidney damage	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands
Nitrate (measured as Nitrogen)	10	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	1	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits

Contaminant	MCL (mg/l)	Methodology		Detection limit (mg/l)
			breath and blue-baby syndrome.	
Selenium	0.05	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines
Thallium	0.0005	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems	Leaching from ore-processing sites; discharge from electronics, glass, and drug factorie

National Secondary EPA Water Drinking Standards

https://www.epa.gov/sdwa/drinking-water-regulations-and-contaminants

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-143/subpart-A

§ 143.3 Secondary maximum contaminant levels.

The secondary maximum contaminant levels for public water systems are as follows (Table S3):

Contaminant	Level
Aluminum	0.05 to 0.2 mg/l.
Chloride	250 mg/l.
Color	15 color units.
Copper	1.0 mg/l.
Corrosivity	Non-corrosive.
Fluoride	2.0 mg/l.
Foaming agents	0.5 mg/l.
Iron	0.3 mg/l.
Manganese	0.05 mg/l.
Odor	3 threshold odor number.
pH	6.5–8.5.
Silver	0.1 mg/l.
Sulfate	250 mg/l.
Total dissolved solids (TDS)	500 mg/l.
Zinc	5 mg/l.

These levels represent reasonable goals for drinking water quality. The States may establish higher or lower levels which may be appropriate dependent upon local conditions such as unavailability of alternate source waters or other compelling factors, provided that public health and welfare are not adversely affected.

List of National Secondary Drinking Water Regulations

Contaminant Secondary Standard
Aluminum 0.05 to 0.2 mg/L
Chloride 250 mg/L
Color 15 (color units)
Copper 1.0 mg/L
Corrosivity noncorrosive
Fluoride 2.0 mg/L
Foaming Agents 0.5 mg/L
Iron 0.3 mg/L
Manganese 0.05 mg/L
Odor 3 threshold odor number

pH	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L