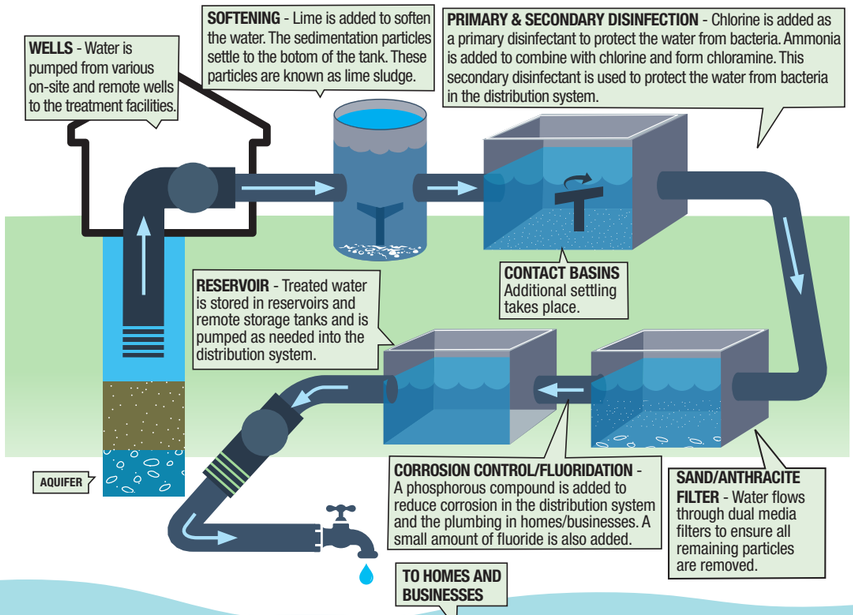
2023 Water Quality Report

Informe del 2023 sobre la Calidad de Agua del
Departamento de Agua y Alcantarillado de Miami-Dade (WASD)

WATER TREATMENT PROCESS



Did You Know that highly trained microbiologists, chemists, and water treatment specialists conduct or supervise more than 150,000 analyses of water samples each year? Water quality samples are collected throughout the county and tested regularly. Samples include untreated and treated water taken at our facilities, sample sites throughout the service areas and at customers' homes. These tests are overseen by various federal, state and local regulatory agencies

As part of the Miami-Dade Water and Sewer Department (WASD)'s outreach efforts to communicate the excellent level of our drinking water, this publication serves as an informational tool about Miami-Dade County's drinking water.

Our number one goal is to provide you and your family a safe and dependable supply of drinking water. Our more than 2,700 employees strive to deliver a quality product and protect the County's precious water resources.

To ensure the safety of your water, WASD routinely monitors for contaminants in your drinking water according to federal, state, and local laws, rules and regulations. Except where indicated otherwise, this water quality report is based on the results of WASD monitoring for the period of January 1, 2023 to December 31, 2023. Data obtained before January 1, 2023, and presented in this publication are from the most recent testing conducted in accordance with the laws, rules, and regulations.

WASD delivers drinking water to more than 2.4 million people each day.

FOR CUSTOMERS WITH SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

ABOUT OUR WATER, WHERE IT COMES FROM

Miami-Dade's source of water is groundwater from wells. The wells withdraw primarily from the Biscayne Aquifer with a limited number of wells withdrawing from the Floridan Aquifer. In 2023, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells.

There are 103 potential sources of contamination identified for this system with low to moderate susceptibility levels. The susceptibility levels describe potential contamination due to nearby activity but do not indicate contamination. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp. All the FDEP's SWAPP from 2018 to 2023 for systems in Miami-Dade County can be found at: https://proapps.dep.state.fl.us/swapp/Welcome/detailsByCounty/13.

LEGEND FOR CHART ON THE FOLLOWING PAGE

DEFINITIONS

In the tables on pages 8-9, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum residual disinfectant level or 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 or 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.

"ND" means not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or milligrams per liter (mg/L) – one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or micrograms per liter (µg/L) – one part by weight of analyte to 1 billion parts by weight of the water sample.

picoCurie per liter (pCi/L) - measure of the radioactivity in water.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water

ABBREVIATIONS

AL = Action Level

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

N/A = Not Applicable

ND = Not Detected

NE = None Established

NR = Not Required

pCi/L = picoCuries per Liter

POE = Point of Entry to the Distribution System

ppb = Parts per billion or micrograms per liter (µg/L)

ppm = Parts per million or milligrams per liter (mg/L)

ppt = Parts per trillion

( ) = Ranges (low - high) are given in parentheses where applicable

The value preceding the parentheses is the highest detected level reported for the monitoring period except for disinfection byproducts and disinfectants, where the running annual average or locational running annual average is reported.

TT= Treatment Technique

NOTES

(a) MCL = Maximum Contaminant Level

(b) Federal Goal (Metas Federales) = MCLG = Maximum Contaminant Level Goal

(c) Total Coliform positive samples should only be reported if there is an accompanying TT (Treatment Technique) violation. A minimum of 420 samples for total coliform bacteria testing are collected each month from the Main distribution system (55 samples from the South Dade Water Supply distribution system) in order to demonstrate compliance with regulations.

(d) A total of 32 samples for Total Trihalomethane and Haloacetic Acid testing are collected per year from the Main System (6 from the North Miami Beach System) in order to demonstrate compliance with State regulations. Compliance is based on a locational running annual average. This is the value which precedes the parentheses.

(e) A total of 16 samples for Total Trihalomethane and Haloacetic Acid testing are collected per year from the South Dade Water Supply System in order to demonstrate compliance with State regulations. Compliance is based on a locational running annual average. This is the value which precedes the parentheses.

(f) Compliance is based on a running annual average, computed quarterly from monthly samples collected during total coliform bacteria testing.

(g) 90th percentile value reported. If the 90th percentile value does not exceed the AL (i.e., less than 10% of the homes have levels above the AL), the system is in compliance and is utilizing the prescribed corrosion control measures.

(h) The data presented is from the most recent testing conducted for these parameters in accordance with regulations.

(i) Fluoride testing to demonstrate compliance with State regulations is required every three years in accordance with the State's monitoring framework.

2023 WATER QUALITY DATA

Listed below are 22 parameters detected in Miami-Dade's water during the reporting period. All are below maximum contaminant levels allowed. Not listed are many others we test for, but that were not detected. Unless otherwise noted, all parameters were tested in 2023.

PARAMETER	FEDERAL MCL (a)	FEDERAL GOAL (b)	STATE MCL	YEAR TESTED	MAIN SYSTEM	MCL VIOL Y/N	SOUTH DADE WATER SUPPLY SYSTEM	MCL VIOL Y/N	NMB Water	MCL VIOL Y/N	REDAVO	MCL VIOL Y/N	MAJOR SOURCES
MICROBIOLOGICAL CONTAMINANTS													
Total Coliform Bacteria (C)	TT	0	TT	23 (h)	0	NO	0	NO	ND	NO	0	NO	Naturally present in the environment
DISINFECTION BYPRODUCTS													
Total Trihalomethanes (ppb)(d)(e)	80	N/A	80	23 (h)	57 (11-58)	NO	48 (12-60)	NO	11 (3 - 27)	NO	61 (54-74)	NO	Byproduct of drinking water chlorination
Haloacetic Acids (ppb)(d)(e)	60	N/A	60	23 (h)	44 (18-52)	NO	22 (2-43)	NO	19 (3 - 34)	NO	25 (12-49)	NO	Byproduct of drinking water chlorination
DISINFECTANTS													
Chloramines (ppm) (f)	MRDL=4	MRDLG=4	MRDL=4	23 (h)	2.6 (ND-5.9)	NO	N/A	N/A	3.7 (0.6 - 4.2)	NO	N/A	N/A	Water additive used to control microbes
Chlorine (ppm) (f)	MRDL=4	MRDLG=4	MRDL=4	23 (h)	N/A	N/A	1.4 (0.3-2.3)	NO	N/A	N/A	1.2 (0.2-1.6)	NO	Water additive used to control microbes
INORGANIC CONTAMINANTS													
Arsenic (ppb)	10	0	10	23 (h)	1 (ND-1)	NO	2 (ND-2)	NO	ND	NO	0.287 (0.23 - 0.287)	NO	Erosion of natural deposits
Barium (ppm)	2	2	2	23 (h)	0.02 (0.006-0.02)	NO	0.02 (0.01-0.02)	NO	ND	NO	0.602 (0.434 - 0.602)	NO	Erosion of natural deposits
Chromium (ppb)	100	100	100	23 (h)	0.7 (ND-0.7)	NO	0.3 (0.2-0.3)	NO	ND	NO	0.0123 (0.0119 - 0.0123)	NO	Erosion of natural deposits
Copper (ppm) (g) (at tap)	AL = 1.3	1.3	AL = 1.3	21'23 (h)	0.07, 0 homes out of 102 (0%) exceeded AL	NO	1.0, 2 homes out of 37 (5%) exceeded AL	NO	0.07, 0 homes out of 54 (0%) exceeded AL[1]	NO	1.4, 4 homes out of 34 (12%) exceeded AL	NO*	Corrosion of household plumbing systems
Fluoride (ppm) (i)	4	4	4	23 (h)	0.9 (0.1-0.9)	NO	0.1	NO	0.7	NO	0.8 (0.13 - 0.8)	NO	Erosion of natural deposits; water additive which promotes strong teeth
Lead (ppb) (g) (at tap)	AL = 15	0	AL = 15	21'23 (h)	3.2, 1 home out of 102 (1%) exceeded AL	NO	1.1, 0 homes out of 37 (0%) exceeded AL	NO	3.4, 3 homes out of 54 (5.6%) exceeded AL[1]	NO	0.8, 0 homes out of 34 (0%) exceeded AL	NO	Corrosion of household plumbing systems
Nitrate (as N) (ppm)	10	10	10	23 (h)	0.4 (0.01-0.4)	NO	9.1 (1.3-9.1)	NO	.16	NO	2.50 (1.99 - 2.50)	NO	Erosion of natural deposits; Runoff from fertilizer use
Nitrite (as N) (ppm)	1	1	1	23 (h)	0.02 (ND-0.02)	NO	ND	NO	ND	NO	ND	NO	Erosion of natural deposits; Runoff from fertilizer use
Selenium (ppb)	50	50	50	23 (h)	1 (ND-1)	NO	1 (ND-1)	NO	ND	NO	0.458 (0.364 - 0.458)	NO	Erosion of natural deposits
Sodium (ppm)	NE	N/A	160	23 (h)	51 (25-51)	NO	29 (19-29)	NO	31	NO	30 (26 - 30)	NO	Erosion of natural deposits and sea water
Thallium	2	0.5	2	23 (h)	0.009 (ND-0.009)	NO	ND	NO	ND	NO	0.0010 (0.0003 - 0.0010)	NO	Leaching from ore-processing sites; discharge from electronics, glass, and/or drug factories
SYNTHETIC ORGANIC CONTAMINANTS													
RADIOACTIVE CONTAMINANTS													
Alpha Emitters (pCi/L)	15	0	15	23 (h)	ND	NO	9 (ND-9)	NO		NO	2.2 (2.1 - 2.2)	NO	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	5	23 (h)	0.2 (ND-0.2)	NO	1 (ND-1)	NO		NO	0.8 (ND - 0.8)	NO	Erosion of natural deposits
Uranium (µg/L)	30	0	30	23 (h)	1 (ND-1)	NO	9 (0.8-9)	NO		NO	1.9 (1.15 - 1.9)	NO	Erosion of natural deposits
Radon (pCi/L)	NE	NE	NE	23 (h)	229 (ND-229)		220 (75-220)				NR		

2023 ADDITIONAL CONTAMINANTS MONITORING**

PARAMETER	FEDERAL MCL (a)	FEDERAL GOAL(b)	STATE MCL	YEAR TESTED	MAIN SYSTEM	MCL VIOL Y/N	SOUTH DADE WATER SUPPLY SYSTEM	MCL VIOL Y/N	NMB WATER	MCL VIOL Y/N	REDAVO	MCL VIOL Y/N	MAJOR SOURCES
Perfluorooctane sulfonate (ppt)	N/A	N/A	N/A	23 (h)	38 (ND-38)	N/A	34 (1-34)	N/A	NR	N/A	35 (19 - 35)	N/A	Disharge/runoff from manmade products
Perfluorooctanoic acid (ppt)	N/A	N/A	N/A	23 (h)	30 (ND-30)	N/A	29 (ND-29)	N/A	NR	N/A	1.6 (0.5 - 1.6)	N/A	Disharge/runoff from manmade products

**We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. This includes monitoring for copper at customers' taps. In December 2023, 4 out of 34 homes in Redavo had copper levels that exceeded the action level (AL) of 1.3 ppm. Because the 90th percentile results exceeded the AL in the Redavo area system, the system exceeded the AL. The AL exceeded was not a violation, but a trigger for additional steps a system must take. Our system complied with, or is in the process of complying with, all required follow-up to this exceedance, which includes the application of a corrosion control system.*

*** This separate table contains contaminants which WASD tested voluntarily and which are not currently regulated.*