City of Palos Hills – IL0312400

Consumer Confidence Report Annual Drinking Water Quality Report

Annual Water Quality Report for the period of January 1 to December 31, 2020

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Palos Hills water system to provide safe drinking water. The source of drinking water used by PALOS HILLS is Purchased Surface Water. For more information regarding this report contact: Commissioner of Public Work Nick Oeffling at 708-598-3400 ext. 1111

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled City Council meetings held on the first and third Thursday of every month at 7:00pm.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source of Drinking 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 pickup substances resulting from the presence of animals or from human activity.

Water Source Information: The City of Palos Hills received its water from the Village of Oak Lawn IL0312220. Oak Lawn receives its water from the City of Chicago. Source water for the City of Chicago is surface water from Lake Michigan.

Source Water Assessment: We want our valued customers to be informed about their water quality. If you would lke to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 708-598-3400 ext.1111. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation / recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

Source of Water: Chicago The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality.

At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Contaminants that may be present in source water include:
Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 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 at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 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 or at http://:www.epa.gov/safewater/lead.

2020 ANNUAL DRINKING WATER QUALITY REPORT

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.
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 E. coli MCL violation has occurred and /or why coliform bacteria total have been found in our water system on multiple occasions.
Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal 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. MCLG's allow for a margin of safety
Maximum Residual Disinfectant Level or MRDL: The highest level of 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 drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water
NA: not applicable. **mrem**: millirems per year (a measure of radiation absorbed by the body) **Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

City of Palos Hills - 2020 Regulated Contaminates Detected

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Total Trihalomethanes (TThm)	2020	55	24.9 – 65.3	No goal for the total	80	ppb	No	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)*	2020	24	11.3 – 25.8	No goal for the total	60	ppb	No	By-product of drinking water disinfection
Chlorine	12/31/2020	0.9	0.7– 1	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes

Coliform Bacteria Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of positive	Fecal coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E.Coli or Fecal Coliform Samples	Violations	Likely Source of Contamination
0	0 positive monthly samples	0	Naturally present in the environment - null	0	No	Naturally present in the environment

Lead and Copper	Date sampled	MCLG	Action Level (AL)	90th Percentile	# of sites over AL	Units	Violation	Likely Source of Contamination
Lead	08/21/20	0	15	0	0	ppb	Yes	Corrosion of household plumbing systems; erosion of natural deposits

Violations Table

Lead and Copper Rule The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	12/30/2020	1/14/2021	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

0316000 City of Chicago Parent Supply 2020 Water Quality Data
Detected Contaminants -Tabulated by Chicago Department of Water Management

Inorganic Contaminants

Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source Of Contaminant
Barium	0.0201	0.0198-0.0201	ppm	2	2		Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Total Nitrate- Nitrite (as nitrogen)	0.42	0.35 – 0.42	ppm	10	10		Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (As Nitrogen)	0.42	0.35 - 0.42	ppm	10	10		Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (TOC)	The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.						
State Regulated Contaminates Fluoride	0.75	0.65 – 0.75	ppm	4	4		Water additive which promotes strong teeth.

Fluoride: Fluoride is added to the water to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7mg/l with a range of 0.6mg/l to 0.8mg/l

Unregulated Contaminants – A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminations in drinking water, and whether future regulation is warranted.

Sulfate	27.8	27.5 – 27.8	ppm	NA	NA		Erosion of naturally occurring deposits
Sodium	9.55	8.73– 9.55	ppm	NA	NA		Erosion of naturally occurring deposits; used as water softeners

Sodium: There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about the level of sodium in the water.

Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Turbidity (NTU/Lowest Monthly %≤0.3 NTU)	(Lowest Monthly %) 100%	100% - 100%	NTU	NA	TT (limit: 95%≤0.3 NTU)		Soil Runoff
Turbidity (NTU Highest Single Measurement)	0.16	NA	NTU	NA	TT (1- NTU)		Soil Runoff

Radioactive Contaminants

Gross Alpha excluding radon & uranium(pCi/L)	3.1	2.8 – 3.1	pCi/l	0	15	Sampled 2/4/20	Decay of natural and man-made deposits
Combined Radium 226/228 (pCi/l)	0.95	.83 – 0.95	pCi/l	0	5	Sampled 2/4/20	Decay of natural and man-made deposits.

0316000 City of Chicago Parent Supply 2020 Water Quality Data

Continued

City of Chicago, Department of Water Management
Parent Supply
Source Water Assessment Summary
for the
2020 Consumers Confidence Report (CCR)

Source Water Location

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern area of the City and suburbs, while the South Water Purification Plant serves the southern area of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great lake by volume with 1,180 cubic miles of water and the third largest Great lake by area.

Source Water Assessment Summary

The Illinois EPA Implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply.

Susceptibility to Contamination

This Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment of all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Further information on our community water supply's Source Water Assessment Program is available by calling DWM at 312-742-2406 or by going online at http://dataservices.epa.illinois.gov/swap/factsheet.aspx

THE FOURTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR 4)

In compliance with UCMR 4, samples were collected a Chicago Water System's entry points to the distribution system (EPTDS), also known as finished water, and analyzed for all contaminant groups except for Haloacetic Acids (HAAs), which were sampled from the distribution system. All the contaminant groups tested in finished water were below the minimum reporting levels specified in the test method under UCMR 4. Samples for HAA indicators (Total Organic Carbon and Bromide) were collected at two source water influent points for the system. For Bromide, test results ranged from 28.2 to 35.3 ppb, and for TOC, test results ranged from 1.79 to 1.80 ppm.

ILLINOIS EPA's SAMPLING OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

The Illinois EPA collected finished water samples from Chicago's Water System on 10/29/2020 and analyzed the samples for a total of 18PFAS contaminants. In its notification to Chicago, the Illinois EPA stated that these contaminants were not present in Chicago's drinking water at concentrations greater than or equal to the minimum reporting levels.

2020 Voluntary Monitoring

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the drinking water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system in greatly reduced.

In 2020, CDWM has also continued monitoring for hexavalent chromium, also known and chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any question or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City website which can be accessed at the following address below:

http//www.cityofchicago.org/city/en/depts./water/supp_info/water_quality resultsandreports/city_ of_ chicago_ emergincontaminantstudy.html

For more information, please contact
Andrea Cheng, Acting Commissioner
At 312-744-8190

Chicago Department of Water Management
Bureau of Water Supply
1000 East Ohio Street
Chicago, Il 60611
Attn: Andrea Cheng

Make your home the Solution to Stormwater Pollution

As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal shoreline. Anything that enters the storm sewer system is discharged untreated into the water bodies we use for swimming, fishing, and for providing drinking water. Polluted storm water runoff is the nation's greatest risk to clean drinking water.

By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings and automotive fluids off the ground and out of stormwater drainage systems. Adopt these healthy household habits and help protect lakes, streams, rivers, wetlands, and coastal waters.

Health Household Habits for Clean Water

Vehicles and Garage Habits

- Use a commercial car wash or biodegradable, non-poisonous detergent to minimum soapy water from flowing into the storm sewer system and local waters.
- Check your car, truck, boat, motorcycle and other machinery for leaks and spills. Make repairs as soon as possible. Clean up spills or leaks with absorbent materials like kitty litter and sand. Don't rinse oil, gas or chemical spills into the stormwater drainage system.
- Recycle used motor oils and other automotive fluids at participating oil change service locations.

Lawn and Garden Habits

- Use pesticides and fertilizers sparingly. When using these chemicals, use the recommended amounts. Avoid application if the forecast calls for rain, chemicals will be washed into the storm sewer system and local waters.
- Select native landscaping plants and grasses. Native plants require less water, fertilizer and pesticides.
- Sweep up yard debris from hard surfaces rather than hosing the debris off theses area. Recycle yard waste through your garbage waste hauler.
- Don't overwater your lawn. Water during the cool times of the day. Avoid letting water run off your yard and into the storm sewer drainage system.
- Cover piles of dirt and mulch being used in landscaping projects to prevent these products from blowing and washing off your yard into the storm sewer systems and waterways. Grow grass in the bare spots of your lawn to prevent erosion.

Home Repair and Improvements Habits

- Before beginning an outdoor project, locate and protect any storm sewers on your property to prevent debris from washing into the storm sewers.
- Sweep up and properly dispose of construction debris such as concrete and mortar.
- Use hazardous substances like paint, solvents and cleaners in the smallest amounts possible. Clean up spills immediately and dispose of the waste according to the product label.
- Purchase nontoxic, biodegradable recycled and recyclable products whenever possible.
- Use a rain barrel or consider redirecting downspouts away from paved surfaces and onto your lawn to increase infiltration into the earth and to reduce stormwater runoff.

Pet Waste Habits

- Remember to always pick up your pet waste and dispose of it properly. Leaving pet waste on the ground increases public health risk by allowing harmful bacteria and nutrients to wash into the storm sewer drainage system and eventually into local waterways.

Swimming Pools and Spa Habits

- Whenever possible drain your pool or spa into the sanitary sewer of your home. This prevents chemicals from entering the water ways before proper treatment.