ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN WATER WORKS ASSOCIATION, *Petitioner*, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and MICHAEL S. REGAN, in his official capacity as Administrator, United States Environmental Protection Agency, *Respondents*.	No. 24-1376

MOTION OF NEWBURGH CLEAN WATER PROJECT, NATURAL RESOURCES DEFENSE COUNCIL, AND SIERRA CLUB TO INTERVENE IN SUPPORT OF RESPONDENTS

Pursuant to Federal Rule of Appellate Procedure 15(d) and D.C. Circuit Rule 15(b), Newburgh Clean Water Project, the Natural Resources Defense Council (NRDC), and Sierra Club (collectively, Movants) move to intervene in support of Respondents U.S. Environmental Protection Agency (EPA) and its Administrator, Michael S. Regan, in the above-captioned challenge to a rule titled "National Primary Drinking Water Regulations for Lead and Copper: Improvements," 89 Fed. Reg. 86,418 (Oct. 30, 2024) ("Improvements Rule" or "the Rule"). Because

Movants have significant interests in defending the Rule, existing parties may not adequately represent those interests, and this motion is timely, the Court should grant the request to intervene.

Counsel for Movants contacted counsel for Petitioner and Respondents for their positions on this motion. None of the parties indicated a present intent to oppose. Counsel for Respondents stated that they take no position. Counsel for Petitioner American Water Works Association stated that they reserve their position until they see this motion.

BACKGROUND

I. Lead in Drinking Water is a Significant Health Threat

There is no safe level of lead in drinking water. 89 Fed. Reg. at 86,445. Even low-level lead exposure causes significant harm to children and others. *See id*. at 86,429. Lead exposure is especially dangerous for fetuses, formula-fed infants, and young children; it presents serious risks to their brains and nervous systems and can cause learning disabilities, attention disorders, and low birth weight. *Id*. at 86,429-30. For adults, lead exposure may increase blood pressure and hypertension, impair kidney function, and cause death from cardiovascular diseases, including heart attacks. *Id*. at 86,419, 86,430. When a service line—the pipe that connects a home to the water main—is made of lead, the leaching of lead from the service line is the predominant source of lead in drinking water. *Id*. at

86,443. EPA estimates that 9.2 million properties in the United States are served by lead service lines; these service lines provide drinking water to an estimated 15 to 22 million people. *Lead Service Lines*, U.S. EPA, https://www.epa.gov/ground-water-and-drinking-water/lead-service-lines (last updated July 16, 2024); Lauren Rosenthal & Will Craft, *Buried Lead: How the EPA has Left Americans Exposed to Lead in Drinking Water*, American Public Media Reports (May 4, 2020), https://www.apmreports.org/story/2020/05/04/epa-lead-pipes-drinking-water. Lead can also leach into drinking water from other plumbing that contains lead. 89 Fed. Reg. at 86,443.

II. Movants

Movants are organizations dedicated to protecting their members and constituents from lead exposure through drinking water and other sources. Newburgh Clean Water Project is an organization of Newburgh, New York, residents whose mission is to advocate for Newburgh's long-term access to clean drinking water, comprehensive health resources for those who've been affected by contaminated water, and the restoration of the local watershed. Declaration of Tamsin Hollo ("Hollo Decl.") ¶¶ 3-4.

Natural Resources Defense Council is a nonprofit environmental and public health organization with nearly 500,000 members. Declaration of Gina Trujillo ("Trujillo Decl.") ¶ 4. A central part of its mission is to protect communities from

toxic chemicals in our environment, including the air we breathe and the water we drink. *Id.*

The Sierra Club is a national nonprofit organization with approximately 615,000 members. Declaration of Aaron Isherwood ("Isherwood Decl.") ¶ 4. The Sierra Club is dedicated to exploring, enjoying, and protecting the wild places of the earth; practicing and promoting the responsible use of the earth's ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives. *Id.*

III. EPA's Regulation of Lead in Drinking Water

Under the Safe Drinking Water Act, EPA must protect the public from lead in drinking water by setting standards for water systems that "prevent known or anticipated adverse effects on the health of persons to the extent feasible." 42 U.S.C. § 300g-1(b)(7)(a); *id.* § 300g-1(b)(2) (requiring regulation of lead in drinking water by reference to 48 Fed. Reg. 45,502, 45,511 (Oct. 5, 1983)).

EPA has issued two previous national primary drinking water standards for lead—the 1991 Lead and Copper Rule and the 2021 Lead and Copper Rule

Revisions. 56 Fed. Reg. 26,460 (June 7, 1991); 86 Fed. Reg. 4198 (Jan. 15, 2021).[1] Although EPA consistently concluded that there is no safe level of lead in drinking water, 56 Fed. Reg. at 26,462-63; 86 Fed. Reg. at 4259, both prior rules shared the same flawed structure. Instead of placing a limit on the amount of lead permitted in tap water, they required water systems to take certain actions to reduce lead in their drinking water—including installing or improving water treatment to reduce the corrosivity of the system's water and replacing lead service lines—only after exceeding a non-health-based lead "action level" of 15 parts per billion (ppb).[2] 56 Fed. Reg. at 26,549-50; *id.* at 26,552 (requiring annual replacement rate of 7 percent); 86 Fed. Reg. at 4283-85; *id.* at 4293 (requiring annual replacement rate of 3 percent). Water systems that exceeded the action level were also required to provide public education and outreach to their consumers about lead and its health effects. 56 Fed. Reg. at 26,502-03, 26,553; 86 Fed. Reg. at 4294. If a water system's lead levels subsequently fell below the action level and stayed there, the

[1] EPA also issued "minor revisions" to the standards in 2000 and "short-term regulatory revisions and clarifications" in 2007. *See* 65 Fed. Reg. 1950 (Jan. 12, 2000); 72 Fed. Reg. 57,782 (Oct. 10, 2007).

[2] Ppb is equal to micrograms per liter (µg/L). One ppb or one µg/L is equal to 0.001 milligrams per liter (mg/L). EPA's regulations use all three units of measurement; this brief uses ppb.

EPA's regulations required water systems to conduct limited tap water sampling. If ten percent or more of samples were above 15 ppb, the water system exceeded the action level. 56 Fed. Reg. at 26,490; 86 Fed. Reg at 4283.

water system was no longer required to replace lead service lines. 56 Fed. Reg. at 26,553, 26,556; 86 Fed. Reg. at 4293.

Both times, EPA finalized these rules despite comments from Movants urging EPA to set a more health protective standard, including by requiring water systems to replace all lead service lines.[3] Comments of NRDC, et al. at 1-4, 19, EPA Docket ID EPA-HQ-OW-2017-0299-1061 (October 17, 1988); Comments of Earthjustice, et al. at 7-10, 15-16, EPA-HQ-OW-2017-0300-1874 (Feb. 12, 2020); Comments of NRDC at 10-11, EPA-HQ-OW-2017-0300-1546 (Feb. 12, 2020). And both times, Movants petitioned for review of EPA's rules, arguing that EPA violated the Safe Drinking Water Act and acted arbitrarily by not setting a more protective standard. *Am. Water Works Ass'n v. EPA*, 40 F.3d 1266, 1268 (D.C. Cir. 1994); Env't Pet'rs' Opening Br. 32-49, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Aug. 8, 2022), ECF No. 1958365.

After Movants, along with other nonprofit and community groups and ten states, petitioned for review of the 2021 rule, EPA announced its intent to promulgate a new rule strengthening its regulation of lead in drinking water. *See* Resp'ts' Consent Mot. Voluntary Remand at 1-2, *Newburgh Clean Water Project*

[3] Movant NRDC submitted comments on and petitioned for review of the 1991 rule; all Movants commented on and petitioned for review of the 2021 rule. This motion uses the term "Movants" throughout to refer to Movants' collective past advocacy and interest in the Improvements Rule.

v. EPA, No. 21-1019 (D.C. Cir. Dec. 9, 2022), ECF No. 1977031. That rulemaking process, EPA explained, would include "reconsidering the very provisions of the [r]ule" Movants challenged, including EPA's failure to set a lower action level and failure to require water systems to replace all lead service lines.[4] *Id*.; *see* Env't Pet'rs' Opening Br. 33-39, 44-49, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Aug. 8, 2022), ECF No. 1958365.

EPA proposed the resulting Improvements Rule in December 2023. 88 Fed. Reg. 84,878 (Dec. 6, 2023). Movants submitted extensive comments on the proposed rule, again calling for EPA to set the action level as low as feasible and require all water systems to replace lead lines within 10 years. Comments of Earthjustice, NRDC, et al. (Earthjustice & NRDC Comments) at 2-4 to 2-5, 4-1 to 4-6, EPA Docket ID EPA-HQ-OW-2022-0801-0840 (Feb. 5, 2024); Comments of Alabama Rivers Alliance et al. at 2-4, EPA Docket ID EPA-HQ-OW-2022-0801-0854 (Feb. 5, 2024).

The final Improvements Rule marks EPA's most health protective regulation of lead in drinking water and the culmination of over thirty years of Movants'

[4] The Court denied EPA's motion for voluntary remand and ordered the case be held in abeyance pending further order of the court. Order Denying Mot. Voluntary Remand, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Feb. 1, 2023), ECF No. 1984197. The case remains in abeyance. *See* Order Continuing Abeyance, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Nov. 8, 2024), ECF No. 2084238.

advocacy. For the first time, it requires all water systems to proactively replace lead service lines irrespective of lead levels, within ten years of the Rule's compliance date, with a few discrete exceptions. 89 Fed. Reg. at 86,419. It also lowers the lead action level to 10 ppb and makes other health-protective changes, including improving sampling protocols to more accurately determine lead levels and requiring water systems to provide more frequent and clearer information to consumers about lead in drinking water. 89 Fed. Reg. at 86,419-20, 86,530-31.

This petition for review, if successful, could deprive tens of millions of people, including many of Movants' members, of the Improvements Rule's benefits and force a return to a standard that fails to protect public health and that would leave millions of lead service lines in the ground indefinitely. Movants seek to intervene to ensure that EPA's health-protective regulation is timely and fully implemented.

ARGUMENT

I. Movants satisfy the requirements for intervention

Intervenors seeking to join a case reviewing agency action in the court of appeals must file a motion within 30 days and provide a "concise statement" of interest and "grounds for intervention." Fed. R. App. P. 15(d). This Court has looked to district court intervention standards when evaluating motions in the court of appeals. *See Mass. Sch. of L. at Andover, Inc. v. United States*, 118 F.3d 776,

779-80 (D.C. Cir. 1997); *Bldg. & Constr. Trades Dep't v. Reich*, 40 F.3d 1275, 1282 (D.C. Cir. 1994) (noting the Supreme Court's recognition that "the policies underlying intervention [in district court] may be applicable in appellate courts") (alteration in original) (quoting *Int'l Union v. Scofield*, 382 U.S. 205, 217 n.10 (1965)). Those standards provide that a movant is entitled to intervene as of right when: (1) its motion is "timely"; (2) the movant claims an "interest" relating to the "subject of the action"; (3) disposition of the action "may as a practical matter impair or impede the movant's ability to protect its interest"; and (4) the existing parties may not "adequately represent" the movant's interest. Fed. R. Civ. P. 24(a)(2). In addition, a party may intervene permissively if its motion is timely and it has "a claim or defense" that shares a question of law or fact with the main action. Fed. R. Civ. P. 24(b)(1)(B). Movants satisfy each standard.

A. This motion is timely

This motion is timely filed within 30 days of the first petition for review. ECF No. 2089691 (filed December 13, 2024); Fed. R. App. P. 15(d).

B. Movants have interests in the Improvements Rule sufficient for intervention and to demonstrate standing

Movants have significant interests in the Rule within the meaning of Federal Rule of Appellate Procedure 15(d) and Federal Rule of Civil Procedure 24(a)(2). The Improvements Rule includes requirements Movants have been seeking for decades to reduce lead in drinking water: it lowers the lead action level and

requires water systems to proactively remove all lead service lines. Defending the Rule will advance Movants' organizational missions to protect public health and reduce their members' exposure to lead in drinking water.

Movants have advocated for better protections against lead in drinking water for over thirty years, including by seeking stronger regulations from EPA. *See* Trujillo Decl. ¶ 6; Hollo Decl. ¶¶ 5, 8-9; Isherwood Decl. ¶ 10. Movants submitted comments advocating for more health-protective measures in response to both of EPA's prior national drinking water standards for lead and challenged those standards as too weak. *See supra* pp. 6-7. Most recently, Movants' challenge to EPA's 2021 drinking water standard for lead resulted in EPA moving for a voluntary remand, in light of the agency's plans to "initiate a new rulemaking to revise and strengthen the Rule" after "reconsidering the very provisions of the [rule]" Movants challenged. Resp't's Consent Mot. Voluntary Remand, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Dec. 9, 2022), ECF No. 1977031. When EPA proposed that new rulemaking—the Improvements Rule—Movants submitted extensive comments supporting the proposal and suggesting ways EPA could set an even stronger standard. *See supra* p. 7.

As part of their broader advocacy to reduce lead in drinking water, Movants have also testified repeatedly before Congress about the need for stronger regulations of lead in drinking water, advocated for increased funding for lead

service line replacement, and participated in EPA stakeholder roundtables. Trujillo Decl. ¶¶ 5-6; Hollo Decl. ¶ 9. Movants have worked to educate their members and the public about the health threat of lead in drinking water. Trujillo Decl. ¶ 6; Hollo Decl. ¶ 5. And movant NRDC has a history of enforcing EPA's previous drinking water standards for lead against water systems that violate those standards, endangering NRDC members and the general public. *See, e.g.*, *Concerned Pastors for Soc. Action v. Khouri*, 217 F. Supp. 3d 960 (E.D. Mich. 2016), *aff'd*, 844 F.3d 546 (6th Cir. 2016).

Movants have Article III standing to intervene, should that be required,[5] which means movants "*a fortiori* ha[ve] an interest relating to the property or transaction which is the subject of the action." *Crossroads Grassroots Pol'y Strategies v. Fed. Election Comm'n*, 788 F.3d 312, 320 (D.C. Cir. 2015) (cleaned up). Standing requires a showing of injury in fact, causation, and redressability. *Id.* at 316. An intervenor defending agency action can generally prove all three elements if it "benefits from [the] agency action, the action is then challenged in

[5] The Supreme Court has called into question whether defendant-intervenors need to demonstrate standing, because they do not invoke a court's jurisdiction. *See Va. House of Delegates v. Bethune-Hill*, 139 S. Ct. 1945, 1951 (2019) (noting that a party intervening as a defendant or appellee, roles that did not invoke the court's jurisdiction, did not need to demonstrate standing). Movants explain here why they have standing, however, as the same evidence shows their interest in intervention, and this Court has continued to require defendant-intervenors to establish standing. *See, e.g.*, *Yocha Dehe Wintun Nation v. U.S. Dep't of the Interior*, 3 F.4th 427, 430 (D.C. Cir. 2021).

court, and an unfavorable decision would remove the . . . benefit." *Id.* at 317. To demonstrate associational standing, an organizational party must also show that (1) at least one of its members would have standing to intervene in their own right; (2) the interests the organization seeks to protect are germane to its purpose; and (3) the participation of individual members is not required. *Hearth, Patio & Barbecue Ass'n v. EPA*, 11 F.4th 791, 802 (D.C. Cir. 2021).

Individual members of Movants' organizations would have standing to intervene in their own right to defend the Rule. Members are exposed to lead-contaminated water: they are served by water systems with unsafe levels of lead in drinking water, receive water through lead service lines, and have found non-zero levels of lead coming out of their taps. *See, e.g.*, Declaration of Jacqueline Leavy ("Leavy Decl.") ¶ 5; Declaration of Ellyn Drathring Jung ("Jung Decl.") ¶¶ 6, 9; Declaration of Francene Grewe ("Grewe Decl.") ¶ 9; Declaration of Nicole Vandal ("Vandal Decl.") ¶ 9 tbl. 1. Some members have health conditions placing them at heightened risk from lead exposure, have family—including young children—who are particularly vulnerable to even small amounts of lead, and harbor well-founded concerns about the wide range of health harms and risks associated with lead exposure. *See, e.g.* Jung Decl. ¶ 3, Leavy Decl. ¶¶ 3, 5-7; Grewe Decl. ¶¶ 5-7, 12; Declaration of Autumn Tarleton ("Tarleton Decl.") ¶¶ 4, 6; Declaration of Elaine Doremus ("Doremus Decl.") ¶¶ 4-5; Declaration of Carla Brodie ("Brodie Decl.")

¶¶ 1, 4-5; 89 Fed. Reg. at 86,429-30. These "[a]dverse health effects," including assertions of "realistic health concerns," are sufficient "Article III injuries." *Clean Wis. v. EPA*, 964 F.3d 1145, 1156 (D.C. Cir. 2020); *see also Cal. Cmtys. Against Toxics v. EPA*, 928 F.3d 1041, 1048-49 (D.C. Cir. 2019); *NRDC v. EPA*, 755 F.3d 1010, 1016-17 (D.C. Cir. 2014).

Members also purchase water filters and bottled water and regularly flush their taps to protect themselves from lead, incurring costs that may be reduced or unnecessary once the Improvements Rule takes full effect. *See* Jung Decl. ¶ 8, Leavy Decl. ¶ 6; Tarleton Decl. ¶ 4; Doremus Decl. ¶ 5; Brodie Decl. ¶ 6. Such costs incurred to prevent likely harm qualify as injury-in-fact. *In re U.S. Office of Personnel Mgmt. Data Security Breach Litig.*, 928 F.3d 42, 59 (D.C. Cir. 2019).

The Improvements Rule addresses Movants' members' health concerns and economic injuries by providing them additional protection from lead. For Movants' members with lead service lines, the Rule will eliminate the primary source of lead in their water: it requires water systems to remove lead service lines, in most cases, within 10 years of the Rule's compliance date. 89 Fed. Reg. at 86,637-39. For Movants' members served by water systems with recent 90th percentile lead levels below the previous action level of 15 ppb but above the new action level of 10 ppb, *see, e.g.*, Vandal Decl. ¶ 9 tbl. 1, the water systems will now have to take new steps to reduce lead in members' drinking water, 89 Fed. Reg. at 86,420. And for

Movants' members served by small water systems, the Improvements Rule provides protections, including lead service line replacement, that are similar to the protections for customers of larger water systems and which had been lacking in the prior rule. *See, e.g.*, Grewe Decl. ¶ 8, 10-11; 89 Fed. Reg. at 86,426.

The Improvement Rule also provides numerous informational benefits for Movants' members. For example, some members lack information about the amount of lead in their tap water and plan to take advantage of the Rule's requirement that water systems, upon request, test the water of any customer who may be served by a lead service line and share the results with the customer. *See* Leavy Decl. ¶ 10; 89 Fed. Reg. at 86,642; *Waterkeeper All. v. EPA*, 853 F.3d 527, 533-34 (D.C. Cir. 2017) (finding informational injury where EPA action reduced public reporting and disclosure obligations). Others will benefit from the Improvements Rule's requirement that water systems provide tap sampling results after a lead action level exceedance to the water consumer even if they do not pay the water bill (as in some rental housing). *See* Brodie Decl. ¶ 10; 89 Fed. Reg. at 86,532 (requiring water systems to deliver public education materials to "consumers" rather than "customers"). Movants' members thus will benefit from the Improvements Rule and would have standing in their own right to defend it.

Movants' defense does not require the participation of individual members. Petitioners' arguments are questions of law or fact that will be resolved on the

administrative record and will not require any consideration of members' individual circumstances. *See Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 597-98 (D.C. Cir. 2015).

A successful defense of the Improvements Rule will obtain for Movants' members the full and timely benefits of the removal of their lead service lines and significant reductions of lead in their drinking water, and of receiving key information about lead contamination in their drinking water. Movants satisfy the requirements for Article III standing. These interests are more than sufficient to support defensive intervention.

C. Movants' interests would be threatened by an adverse ruling

An order weakening or vacating the Improvements Rule would harm Movants, risk their members' health and welfare, and undo decades of Movants' advocacy work related to lead in drinking water. *See supra* pp. 10-11, 13-14.

Movants' ability to protect their broader interests in the regulation of drinking water contaminants may also "as a practical matter [be] impair[ed] or impede[d]" by an adverse judgment because this litigation concerns questions of law under the Safe Drinking Water Act. *See* Fed. R. Civ. P 24(a)(2); *Peters v. District of Columbia*, 873 F. Supp. 2d 158, 218 (D.D.C. 2012) ("Impairment exists when the decision in a pending matter would foreclose or adversely affect the rights of the proposed intervenor in a subsequent proceeding."). In addition to their

litigation challenging EPA's prior drinking water standards for lead, Movants also regularly litigate issues under the Safe Drinking Water Act to protect their members' health from risks posed by other drinking water contaminants. For example, NRDC and Newburgh Clean Water Project are defendant-intervenors in a pending case regarding EPA's drinking water standards for per- and polyfluoroalkyl (commonly known as "PFAS") substances. *See* Order Granting Mots. to Intervene, *Am. Water Works Ass'n v. EPA*, No. 24-1188 (D.C. Cir. July 23, 2024), ECF No. 2066003. In addition, NRDC recently prevailed in litigation regarding EPA's determination to regulate perchlorate in drinking water, *NRDC v. Regan*, 67 F.4th 397 (D.C. Cir. 2023), and is party to an ongoing consent decree that requires EPA to issue a perchlorate standard by 2027, *see* Stip. to Modify Consent Decree, *NRDC v. U.S. EPA*, No. 16-cv-1251 (S.D.N.Y. Jan 5, 2024), ECF Nos. 105, 105-1. The resolution of Safe Drinking Water Act and other legal issues in this litigation may affect Movants' ability to protect their interests in these or other future cases.

D. Movants' interests may not be adequately represented by EPA

Movants readily meet the "minimal" burden of establishing that EPA "may" not adequately represent their interests. *Trbovich v. United Mine Workers*, 404 U.S. 528, 538 n.10 (1972). This burden is satisfied by showing a "potential" conflict, *see Dimond v. District of Columbia*, 792 F.2d 179, 193 (D.C. Cir. 1986),

or the "possibility of disparate interests," even where one "cannot predict now the specific instances" in which conflicts will arise, *NRDC v. Costle*, 561 F.2d 904, 912 (D.C. Cir. 1977).

Movants more than meet this lenient standard. While EPA must balance multiple stakeholder perspectives to represent the broader public interest, Movants have a unique and narrower interest in protecting the health and welfare of their members from lead in drinking water. *See* Trujillo Decl. ¶¶ 4, 9-10, Hollo Decl. ¶ 5, Isherwood Decl. ¶ 6, *Safari Club Int'l v. Salazar*, 281 F.R.D. 32, 42 (D.D.C. 2012) ("[P]roposed intervenors' interests may be 'more narrow and parochial' than that of Federal Defendants . . . .") (quoting *Fund for Animals v. Norton*, 322 F.3d 728, 737 (D.C. Cir. 2003)). Recognizing that government and intervenors' interests frequently differ, this Court "look[s] skeptically on government entities serving as adequate advocates for private parties," *Crossroads*, 788 F.3d at 321, and "ha[s] often concluded that governmental entities do not adequately represent the interests of aspiring intervenors," *Fund for Animals*, 322 at 736.[6]

[6] Movants have repeatedly been respondent-intervenors in other parties' challenges to EPA drinking water standards, despite sharing EPA's overall goal of defending these rules or portions of them. *See, e.g.*, Order Granting Mots. to Intervene, *Am. Water Works Ass'n v. EPA*, No. 24-1188 (D.C. Cir. July 23, 2024), ECF No. 2066003 (NRDC and Newburgh Clean Water Project are respondent-intervenors in challenge to per- and polyfluoroalkyl substances standard); *Chlorine Chemistry Council v. EPA*, 206 F.3d 1286 (D.C. Cir. 2000) (NRDC was respondent-intervenor in challenge to chloroform standard); *NRDC v. EPA*, 824 F.2d 1211

Indeed, Movants and EPA have a long history of adversarial positions regarding EPA's regulation of lead in drinking water. The Improvements Rule followed decades of regulatory comments, litigation, and other advocacy by Movants seeking the very health-protective provisions EPA included in its rule—a lower action level and mandatory lead service line replacement by all water systems. *See supra* pp. 6-7. EPA initiated the Improvements Rule rulemaking only after lawsuits from Movants and others. *See id*. And, in public comments, Movants advocated for an even more health-protective regulation than EPA ultimately adopted. *Compare, e.g.*, Earthjustice & NRDC Comments at 2-11 to 2-14 (urging EPA to require all water systems to replace lead lines within ten years, with no automatic extensions for any water systems) *with* 89 Fed. Reg. at 86,467 (automatically extending the deadline for systems with particularly high proportions of lead lines); Earthjustice & NRDC Comments at 4-1 to 4-4 (urging EPA to lower the lead action level to no higher than 5 ppb) *with* 89 Fed. Reg. at 86,420 (setting a lead action level of 10 ppb).

Movants also have historically disagreed with EPA about the agency's regulation of other drinking water contaminants. For example, in recent years, NRDC has successfully challenged EPA's failure to promulgate a national primary

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(D.C. Cir. 1987) (NRDC was both a petitioner and respondent-intervenor in consolidated challenges to the volatile organic compounds standard).

drinking water standard for perchlorate. *See NRDC v. Regan*, 67 F.4th at 398, 400-01. NRDC's over three-decade history of Safe Drinking Water Act litigation shows a consistent pattern of taking positions that differ from EPA's positions. *See, e.g.*, *NRDC v. EPA*, 812 F.2d 721 (D.C. Cir. 1987) (challenge to drinking water standard for fluoride); *NRDC v. EPA*, 824 F.2d 1211 (D.C. Cir. 1987) (challenge to drinking water standard for volatile organic compounds).

In light of this history, Movants' and EPA's interests very well "might diverge during the course of litigation." *Fund for Animals*, 322 F.3d at 736. The potential for divergence is amplified by the upcoming presidential transition, given the higher chance of agencies shifting position during times of transition between administrations. *See, e.g.*, *W. Energy All. v. Zinke*, 877 F.3d 1157, 1169 (10th Cir. 2017) ("[T]he change in the Administration raises 'the possibility of divergence of interest' or a 'shift' during litigation." (quoting *WildEarth Guardians v. U.S. Forest Serv.*, 573 F.3d 992, 996 (10th Cir. 2009)); *see also Kleissler v. U.S. Forest Serv.*, 157 F.3d 964, 974 (3d Cir. 1998) (finding inadequacy of representation in part because "it is not realistic to assume that the agency's programs will remain static or unaffected by unanticipated policy shifts"). Here, recent history strongly suggests that the incoming administration will not adequately represent Movants' interests in the Improvements Rule. The first Trump Administration issued the 2021 rule that failed to include many of the Improvements Rule's health-protective

provisions, prompting Movants to challenge that inadequate rule in a case that is still pending. Opening Br. of Env't Pet'rs, *Newburgh Clean Water Project v. EPA*, No. 21-1019 (D.C. Cir. Aug. 8, 2022), ECF No. 1958365.

Based on Movants' unique interest in defending the Rule and history of disagreement and litigation with EPA over standards for lead and other drinking water contaminants, Movants' interests in this case may not be adequately represented by EPA. *See Crossroads*, 788 F.3d at 321 (noting the government and intervenor's sufficiently different interests where they disagreed about the extent of the government's regulatory power, among other things); *Fund for Animals*, 322 F.3d at 737 ("Although there may be a partial congruence of interests, that does not guarantee the adequacy of representation."). "Without calling the good faith of EPA into question in any way," there is ample evidence that, in this action, Movants "may well have honest disagreements with EPA on legal and factual matters." *Costle*, 561 F.2d at 912.

Movants will also "serve as a vigorous and helpful supplement to EPA's defense." *Id.* at 912-13. Movants offer a distinct perspective: they are nonprofit and community organizations with extensive experience advocating on lead in drinking water issues, and their members experience first-hand the persistent, serious effects from lead exposure. As such, Movants would complement EPA's defense in any additional briefing of the claims presented. *See id*. Consistent with this Circuit's

rules, Movants will "focus on points not made or adequately elaborated upon in the [government's] brief, although relevant to the issues before this court." D.C. Cir. R. 28(d)(2).

E. Movants also satisfy the standard for permissive intervention

Federal Rule of Civil Procedure 24 also grants the district courts discretion to allow "permissive" intervention when an applicant "has a claim or defense that shares with the main action a common question of law or fact," if it will not "unduly delay or prejudice the adjudication of the original parties' rights." Fed. R. Civ. P. 24(b)(1)(B), 24(b)(3); *see also Int'l Union*, 382 U.S. at 217 n.10 (citing both Rule 24(a) and (b) in noting that district court intervention policies may be applicable in appellate courts). Movants meets these requirements as well.

Potential intervenors' interest in defending an agency's action, as Movants maintain here, is sufficient to establish a "common . . . defense" in a challenge to agency action. *See Sault Ste. Marie Tribe of Chippewa Indians v. Bernhardt*, 331 F.R.D. 5, 14 (D.D.C. 2019). Here, Movants intend to offer arguments defending the Improvements Rule, which will share questions of law and fact with—indeed, will directly respond to—the underlying challenges. EPA's, Petitioners', and Movants' arguments are all anticipated to be grounded in the administrative record, the Safe Drinking Water Act, and the Administrative Procedure Act. Movants also will not "unduly delay or prejudice" the adjudication of Petitioners' claims. *See*

Fed. R. Civ. P. 24(b)(3). Movants' motion is timely, Movants will adhere to set briefing schedules and, as noted above, Movants will avoid repetition of facts or arguments made in the principal respondents' briefs, focusing on relevant points that were inadequately developed or not addressed. *See* D.C. Cir. R. 28(d)(2).

CONCLUSION

For the foregoing reasons, this Court should grant Movants leave to intervene in support of Respondents.

Dated: December 20, 2024

Respectfully submitted,

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Counsel for Petitioner Natural Resources Defense Council

CIRCUIT RULE 26.1 DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and Circuit Rule 26.1, Movants Newburgh Clean Water Project, Sierra Club, and Natural Resources Defense Council state that each is a non-governmental corporation with no parent corporation and no publicly held company holding 10 percent or more of its stock.

Newburgh Clean Water Project is a grassroots community organization dedicated to ensuring that residents of Newburgh, New York have access to drinking water free from PFAS, lead, and other contaminants.

Sierra Club is a national nonprofit organization dedicated to the protection and enjoyment of the environment.

The Natural Resources Defense Council is a nonprofit organization dedicated to improving human health and the quality of the human environment and to protecting the nation's endangered natural resources.

Dated: December 20, 2024

Respectfully submitted,

/s/ Suzanne Novak
Suzanne Novak
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CERTIFICATE OF PARTIES

Pursuant to D.C. Circuit Rules 27(a)(4) and 28(a)(1)(A), I certify that the parties to this case are set forth below:

Petitioners: American Water Works Association

Respondents: United States Environmental Protection Agency and Michael S. Regan, Administrator.

Intervenors and Amici: There are no intervenors or amici curiae as of the time of this filing.

DATED: December 20, 2024

/s/ Adeline S. Rolnick

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT

I hereby certify that the foregoing Motion to Intervene contains 4,988 words, excluding the items listed in Fed. R. App. P. 32(f), and was composed in Times New Roman font, 14-point. The motion complies with applicable type-volume and typeface requirements. Fed. R. App. P. 32(a)(5)-(6); Fed. R. App. P. 27(d)(2).

DATED: December 20, 2024

/s/ Adeline S. Rolnick

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CERTIFICATE OF SERVICE

I certify that on this 20th day of December, 2024, the foregoing Motion to Intervene and attachments was filed with the electronic case filing (ECF) system of the U.S. Court of Appeals for the D.C. Circuit, which will provide electronic notice to all counsel of record.

DATED: December 20, 2024

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IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN WATER WORKS ASSOCIATION, *Petitioners*, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et. al*., *Respondents*.	No. 24-1376

APPENDIX TO MOTION OF NEWBURGH CLEAN WATER PROJECT, NATURAL RESOURCES DEFENSE COUNCIL, AND SIERRA CLUB TO INTERVENE IN SUPPORT OF RESPONDENTS

Dated: December 20, 2024

Respectfully submitted,

/s/ Suzanne Novak
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Counsel for Petitioner Natural Resources Defense Council

TABLE OF CONTENTS

I, CARLA BRODIE, declare and state as follows:

1. I am a resident of Newburgh, New York and am served by the Newburgh water system. I have lived in my current residence for 3 years with my 9-year-old daughter.

2. I am a member of the Newburgh Clean Water Project ("NCWP"). I was a steering committee member of NCWP years ago around when it was first founded, and I've stayed involved with NCWP even after leaving the board.

3. I have thought about Newburgh's lead in drinking water issues for a while and I discuss these issues frequently with friends and neighbors—especially those with children. Newburgh has had ongoing issues with lead in drinking water since 2016 when the City's water source changed, and I first became aware of the problem about a year later.

4. I rent the house I live in, which was built in the 1890s. I do not know what material my service line is made of. Given the age of the home, I know there is a strong possibility that I have a lead service line. I also know that the city of Newburgh has not replaced the service line since I moved in.

5. The likely presence of lead in my drinking water concerns me because I know that even low levels of lead exposure can cause harmful health effects on both me and my child.

6. In the past 3 years that I've lived in this home I have purchased all my drinking water because of my concerns over the quality and safety of the tap water. My daughter and I drink only bottled water. Bottled water is very expensive and I'm concerned about the plastic pollution from the bottles. We go through about six cases of bottled water a month, so I'm adding a lot of bottles to the recycling stream and spending about $50 per month on water. Complete replacement of Newburgh's lead service lines would make me more likely to drink tap water in any home I rented in Newburgh.

7. I've lived in the historic district of Newburgh ever since I moved here, and I haven't drunk the tap water since I first moved here and learned about Newburgh's water issues. My daughter has never drunk water that comes out of a tap. Replacing all lead service lines in Newburgh over a ten-year period would ensure that future generations would not grow up fearing lead exposure from water and would more readily drink tap water.

8. I do political canvassing and community organizing, and in that work I've seen many kids with lead poisoning. This experience convinced

me that we need to stamp out lead poisoning at the sources, including by replacing lead service lines to reduce exposure from drinking water.

9. I am aware that EPA's Lead and Copper Rule Improvements Rule requires the proactive replacement of lead service lines within ten years of its compliance date. This mandate protects myself, my family, and my neighbors, and without the rule, there's no guarantee that Newburgh will replace all of its lead service lines. Not doing proactive replacement on a ten-year timeframe will harm us by continuing dangerous generational lead exposure.

10. I am also aware that the Lead and Copper Rule Improvements Rule requires water systems to notify renters of their tap water sampling results even if they aren't the ones who pay the water bill. As a renter, receiving these results myself rather than having them sent only to my landlord would ensure that I will see those results and allow me to assess the lead exposure risks from my tap water.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.

Carla Brodie

Date

Declaration of Elaine Doremus

I, Elaine Doremus, declare as follows:

1. My name is Elaine Doremus. I have personal knowledge of the matters stated herein.

2. I am a member of NRDC and have been for about 3 years. I support NRDC because I think it's important to address environmental issues, including the rampant pollution problems we are facing.

3. I live in Albany, New York. My condo was built in the 1980s and in 1999 I moved in.

4. I try to stay up to date on current events through various outlets including my local news station WTEN and reading sites such as Huffington Post. I also read various articles linked on social media. For example, I have been following news reports on the lead problem in Troy, a city bordering Albany that has detected extremely high lead levels but been very slow to address the issue. This info makes me concerned about lead in Albany's drinking water, too.

5. I initially began filtering my drinking water about 5 years ago because friends of mine explained that it makes the tap water taste better. In addition to the taste, I want to make sure I am drinking the healthiest water that I can. Because of this I use a Brita Elite pitcher filter. I know lead is unsafe, so I specifically buy the more expensive filter inserts that remove lead from my drinking water. I am worried about exposure to lead from unfiltered water. Despite this, I am limited

with my money, and therefore I can't afford to filter all the water that enters my house, so I brush my teeth, bathe, and cook with unfiltered water.

6. While Albany says that the water is fine, I have always been skeptical about it, especially because of the taste. When I heard about EPA's new lead in drinking water rule, I immediately felt that this is an improvement. With the new rule I can be more confident in the quality of my drinking water.

7. I recently learned that water systems are required to put out annual water quality reports. But as I tried to read the most recent one for Albany I was lost. Most people have a lot going on in their lives that makes it hard to find time to read and take in all the complicated information in these reports. Even though I am retired it still took a lot of effort and time out of my day to begin to understand whether there is an unsafe level of lead in my drinking water. I think it would be better if these reports were changed to make them easier to understand without a science background.

8. I support NRDC's efforts to defend EPA's new rule because I think it's better to have more stringent regulations on toxic lead. It is imperative to put the health of people first, especially when it comes to drinking water.

I declare under penalty of perjury that the foregoing is true and correct.

Elaine Doremus

Elaine Doremus

12-14-24

Date

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN WATER WORKS ASSOCIATION, *Petitioner*, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*, *Respondents*.	Case No. 24-1376

DECLARATION OF FRANCENE GREWE

I, FRANCENE GREWE, declare and state as follows:

1. I am a resident of Beaverton, Oregon, just outside of Portland.

2. I am a member of the Sierra Club, which I joined over twenty years ago.

3. I have lived at my residence for over ten years, and the Raleigh Water District serves my home with water. My home was built in the 1950s.

4. I grew up in a rural area, where my family and I drank well water and maintained our own septic system. Growing up without these public services made me aware of how important it is to maintain clean water access, which has stayed with me throughout my life.

5. I often care for my two grandsons at my home, who are eight and two years old. I watch them at least once a week, and they occasionally stay overnight. My grandchildren, my husband, and I all drink the tap water at our home.

6. It is important to me that my family and I have safe drinking water. Safe drinking water is a long-standing concern for me; I've toured the local Bull Run watershed and looked into water sanitation in the Portland area. I also spend about one month a year in Rockaway Beach, about a 90-minute drive from my home in Beaverton. There is a lot of clear cutting in that area, and the water tastes different in the areas with clear cutting, which is a concern for me.

7. I know that there is no safe level of lead, and that any level of lead my grandson, my husband, and I are exposed to presents a risk to our health.

8. I am aware that Raleigh Water District is considered a "small water system" under the federal Lead and Copper Rule Improvements ("LCRI") Rule.

9. In 2021, I learned for the first time that Raleigh Water District had a "lead action level exceedance" of 21 ppb in Fall 2021. I did not previously know that high levels of lead had been found in my water system.

10. Under the Lead and Copper Rule Revisions ("LCRR") Rule, which was promulgated prior to the LCRI, small water systems were never required to replace lead service lines, even if they repeatedly exceeded the lead action level. I think it's terrifying to think about serving young children water with such high levels of lead. It was shocking to me that small water systems did not have to do as much to protect human health from lead as large water systems. I have also been frustrated

that there are not better reporting requirements, and that it has been so difficult to know what the lead levels were at each household.

11. The changes in the LCRI, especially the ones particular to the small systems, will benefit me, my family, and my community. For example, the requirement that all water systems, including small systems, replace lead service lines will ensure that dangerous lead service lines will not remain in use in the near future. The requirement that small water systems notify consumers when a tap water sample at a specific location exceeds the lead action level within one business day is also an improvement over the LCRR, which required notification within three days. Other changes in the rule that apply to all water systems will also benefit me, such as lowering the lead action level from 15 to 10 ppb, and updating sampling protocols to require both first and fifth liter testing. These changes give me peace of mind that higher levels of lead will more accurately be detected and, as a result, my exposure to lead will be reduced. They also make me feel assured that I will be notified more quickly of such levels.

12. I am also concerned for my neighbors. Many families with young children have moved into the neighborhood in the last few years, and I'm fairly sure that they don't know their children are likely being exposed to high levels of lead in their drinking water. It has seemed wrong to me that the water system is not required to remediate lead exposure on an individual level. It eases my mind to know that the LCRI requires water systems to protect individuals by replacing lead service lines, and notify my neighbors quickly when a lead action level exceedance occurs.

13. The LCRI provides more protections for consumers like me who are served by small systems than the LCRR did. I am relieved that the LCRR will no longer go into effect.

14. My family, my community and I need the LCRI to protect individuals and to require small water systems not to regress on protecting public health.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.

Francene Grewe

Francene Grewe

Dec 17, 2024

Date

DECLARATION OF TAMSIN HOLLO

I, TAMSIN HOLLO, declare and state as follows:

1. I am a Steering Committee Member of Newburgh Clean Water Project. Newburgh Clean Water Project is a grassroots community organization dedicated to ensuring that residents of Newburgh, New York have access to drinking water free from lead, PFAS, and other contaminants.

2. I am familiar with Newburgh Clean Water Project's organization, policies and practices.

3. Established in 2016, Newburgh Clean Water Project is made up of Newburgh residents who have been affected by water contamination such as lead and PFAS and are concerned about the health of the local community and clean water security.

4. Newburgh Clean Water Project's mission is to advocate for Newburgh's long-term access to clean drinking water, comprehensive health resources for those who've been affected by contaminated water, and the restoration of the local watershed.

5. One way we further our mission is by advocating for federal and state regulations that will improve and protect our water quality, performing outreach to policymakers, and disseminating information regarding drinking water contamination, including from lead, and its health impacts to our

members and the local community. We also further it by educating residents and engaging in community discussion to empower self-advocacy and cultivate effective participation within and for the community.

6. Newburgh Clean Water Project has a four-person steering committee that runs the organization. The organization engages with many more community members in meetings, on social media, and at in person events.

7. While Newburgh Clean Water Project was formed in response to PFAS issues in Newburgh, members' interest drove our decision to get involved in the lead crisis. We often hear first-hand stories about lead exposure and receive questions about lead in drinking water. We therefore began acting on lead in drinking water in 2020.

8. As part of our advocacy around lead in drinking water, Newburgh Clean Water Project submitted comments on the proposed-Lead and Copper Rule Revisions rule, criticizing that rule and calling for, among other things, proactive replacement of all lead service lines. When the 2021 final rule did not meaningfully change from the proposal, we filed a lawsuit challenging the rule in court.

9. After the new administration took office, we continued to advocate for a stronger Lead and Copper Rule, including by successfully

applying for EPA to hold a roundtable with Newburgh Clean Water Project, and submitting comments on the Lead and Copper Rule Improvements rule (LCRI). In those comments we applauded the inclusion of the mandate to replace lead service lines in ten years, but also asked EPA to strengthen the rule in a variety of ways to better protect public health and prioritize historically underserved communities.

10. Newburgh has historically had a lot of lead service lines because the housing stock was mainly built before lead service lines were banned. Lead leaches from these lines and gets into drinking water. I first realized my home had a lead service line four years ago and spent thousands of dollars to have my lead service lines replaced at that time.

11. Lead levels in Newburgh's water have fluctuated over the last few years due to changes in source water and changed corrosion control. Newburgh's water has had lead levels as high as 21 ppb.

12. Constant recalibration of corrosion control techniques is not sufficient to protect Newburgh residents from lead exposure, particularly in light of the fact that we switch between water sources a few times per year. That is why Newburgh Clean Water Project advocates for complete replacement of all of the City's lead service lines to protect public health.

13. Newburgh received three rounds of state grant money to replace its lead service lines, but that hasn't been enough to replace all of the lead service lines in Newburgh. Additionally, some of that money was used to figure out service line material, rather than just replace lead service lines.

14. Newburgh did its lead service line replacements on a "first-come, first-served" basis that did not prioritize low-wealth residents or residents with low English proficiency. The City of Newburgh's population includes over 50% who speak Spanish as their first language. There was no Spanish language information available about the lead line replacement program when we checked with the Water Department. Additionally, many of those community members live in Newburgh's historic district, where there are lead service lines, and so they are the ones who likely still have lead service lines delivering their drinking water.

15. To the best of my knowledge, Newburgh's water department is doing very few lead service line replacements now that it has spent all the grant money. The water department won't ramp up lead service line replacements unless it is required to ramp up its replacement rate by law or somehow receives $10-15 million more.

16. Newburgh Clean Water Project is very concerned about renters. We recently held an event distributing water filters, and at least ninety percent of the people who came to the event were renters.

17. Our members who are renters tell me that they don't have access to their water line to check its material or information about lead in their water. Renters pass on warnings against drinking tap water to their children and grandchildren who also rent, and they buy bottled water because they believe the risk of drinking their tap water is too great. This is an expense they should not have to bear.

18. I am aware that in 2024, EPA finalized the Lead and Copper Rule Improvements rule (LCRI) and that this rule makes welcome, health-protective changes from the Lead and Copper Rule Revisions rule we challenged. For example, the LCRI includes a mandate that water systems replace all lead service lines they control within ten years. It also lowers the lead action level from 15 parts per billion to 10 and requires water systems to provide public education materials to consumers of the water, including renters, rather than only the "customers" who pay the water bills. This will give our members who are renters information about their water that they've never had before. And the ten-year mandate holds Newburgh responsible for replacing all residents' lead service lines.

19. With the LCRI in place, once the lead service line replacements are completed, Newburgh Clean Water Project will be able to tell community members that the largest source of lead in drinking water is no longer an issue in their water, which may allow them to drink their tap water rather than purchase bottled water.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.

Tamsin Hollo Date: 12/16/2024

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN WATER WORKS ASSOCIATION, *Petitioner*, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*, *Respondents*.	)	Case No. 24-1376

DECLARATION OF AARON ISHERWOOD

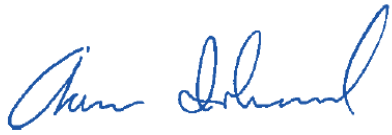
I, AARON ISHERWOOD, declare and state as follows:

1. I am the Philip S. Berry Managing Attorney at the Sierra Club Environmental Law Program. In this role I supervise Sierra Club litigation and help develop legal strategies to advance the Sierra Club's organizational priorities. I have worked as an attorney for the Sierra Club since 1999.
2. I am familiar with the Sierra Club's policies, practices, membership, and programs. I have particular expertise and knowledge concerning the Environmental Law Program and environmental litigation docket of the Sierra Club for the entire United States in federal and state courts.

3. The Sierra Club is a 501(c)(4) non-profit organization founded in 1892 and headquartered at 2101 Webster Street, Suite 1300, Oakland, California. As a Managing Attorney, I work out of the Sierra Club's Oakland headquarters.
4. The Sierra Club is a national nonprofit organization with approximately 615,000 members. The Sierra Club is dedicated to exploring, enjoying, and protecting the wild places of the earth; practicing and promoting the responsible use of the earth's ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives.
5. The Sierra Club's members pay annual dues that help to finance the programs and activities of the organization. Members also have voting rights to elect Sierra Club's Board of Directors.
6. Among other things, the Sierra Club has dedicated itself to protecting public health and its members from toxic contaminants, including in drinking water. The Sierra Club's mission includes protecting its members' health and their ability to breathe, eat, drink, live in their homes, and enjoy being outdoors without experiencing exposure to lead consumption.
7. There is no safe level of lead. EPA acknowledges that lead is a major public health issue.

8. The Sierra Club has many members located in lead-affected communities. The Sierra Club has many members who live, work, and recreate in neighborhoods served by water systems with lead-contaminated water.
9. The Lead and Copper Rule Improvement ("LCRI") Final Rule provides important protections for the Sierra Club's members. These protections include the requirement that all lead service lines in all water systems be replaced within ten years (with some limited exceptions), lowering the lead action level from 15 to 10 ppb, and strengthening public notification requirements, among other changes. These improvements provide Sierra Club's members with significant protections that did not exist prior to the LCRI's promulgation.
10. The LCRI also furthers Sierra Club's longstanding advocacy for the removal of lead from drinking water. Sierra Club has an interest in maintaining the improvements in the LCRI for the benefit of its members.
11. The Sierra Club's members are concretely injured by lead service lines, and will benefit from the LCRI's protections, including mandatory lead service line replacement, the lowering of the lead action level, and closing the loophole for replacement of lead service lines in small water systems. Any vacatur, stay, or delay in implementation of the Rule would cause injury to the Sierra Club and its members.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.



12/16/24

Aaron Isherwood

Date

Philip S. Berry Managing Attorney
Sierra Club
2101 Webster St., Suite 1300
Oakland, CA 94612

Declaration of Ellyn Drathring Jung

I, Ellyn Drathring Jung, declare as follows:

1. My name is Ellyn Drathring Jung. I have personal knowledge of the matters stated herein.

2. I have been a member of NRDC since 2017. I live in the Sauganash neighborhood of Chicago with my partner and son who is four years old. We have lived in our current house for about two and a half years. Our home was built in 1961.

3. I understand that any level of lead can cause neurodevelopmental problems in children and am concerned about the potential effects of lead exposure on my child. I am also concerned for my health because I have a thyroid condition. One of the preventative measures I must take to avoid developing thyroid cancer is reducing my exposure to heavy metals, like lead. I don't want to get cancer. These things combined make me particularly wary of lead in drinking water.

4. I first became aware of the lead problems in Chicago about a year ago from an article NRDC published. It's horrible. Ten years ago we all heard about Flint, it was a national crisis and there was understandable outrage. Now that I know lead is everywhere, I question why we haven't been taking this issue seriously when it comes to Chicago's drinking water.

5. I am aware that the lead service line replacement program in Chicago was previously going to take around 50 years, but with the new rule Chicago has 20

years. This is for sure an improvement. However, the fact that Chicago is given an additional 10 years in comparison to other cities frustrates me. Lead in drinking water is a health risk for everyone including people in Chicago; if there is no safe level of lead then I don't understand why it's okay for some people to be exposed to lead risks for decades and not others.

6. We checked our service line at the point of connection in our home and previously assumed the private side is not made of lead because the material is magnetic. However, according to the City of Chicago's service line inventory, my service line is lead on both the public and private side. This information is confusing, alarming, and frustrating.

7. I have looked into replacing our service line to reduce the level of lead in our drinking water. There is a program in Chicago to assist low-income residents with replacing their service lines but we do not qualify for it, so we would have to pay the full cost of replacing the line. I am grateful that the program exists for low-income families but it is also not feasible for us to spend thousands of dollars we don't have to replace our service line.

8. In the meantime, we use a Brita Elite filter for our drinking water. Once I have the means to do so, I plan to get an under-sink attachment and a hose attachment because I garden vegetables. Even then, I recognize the filtration won't cover all of our water access points. We have looked into getting a whole home filtration system but those are too expensive.

9. In the spring, I had my water tested for lead and it was 3.7 ppb. Although I was relieved it wasn't higher, I am still very concerned about the impact of lead in our water. My son brushes his teeth with unfiltered tap water and like any 4-year-old he drinks some of this water without understanding the health risks. Although he hasn't yet tested positive for lead poisoning I still worry. A little bit of lead for him is a big deal.

10. I support NRDC's involvement in litigation to defend EPA's new rule because it will require my water system to replace my lead service line and to take other protective actions at lower system-wide lead levels than before. I appreciate that the new rule will help more people than the rule from before. I would be really upset to know that EPA's old rule came back and there was no requirement for my water system to replace my home's service line. EPA should do everything it can to get all of the lead lines out as soon as possible.

I declare under penalty of perjury that the foregoing is true and correct.

Ellyn Drathring Jung

12/10/2024
Date

Declaration of Jacqueline Leavy

I, Jacqueline Leavy, declare as follows:

1. My name is Jacqueline Leavy. I have personal knowledge of the matters stated herein.

2. I am a member of NRDC and have been for about 20 years.

3. I live in the Village of Oak Park, Illinois, a municipality just west of Chicago. I am currently retired, but was a career community organizer in Chicago for nearly 35 years. I served for a time as a consultant to a nonprofit community organization in Chicago (the Westside Health Authority) on their childhood lead poisoning prevention project. I advised their staff on the creation and dissemination of educational materials for parents in local public schools about lead poisoning in children. I learned that lead can severely affect children's cognitive development and cause learning disabilities and behavioral issues and even heart disease.

4. I understand that there are many potential lead exposure pathways, including lead in drinking water, paint in aging housing stock, and contaminated soil. Land near expressways often have high lead content deposited from vehicle emissions in the era before leaded gasoline was taken off the market. Despite some important and effective efforts to address and remove the dangers from lead paint, I worry that we have not seen the same amount of attention paid to the issue of lead in drinking water.

5. I have lived in my home for 40 years. It was built before 1912. My water is supplied by the Village of Oak Park Public Works. On October 1, 2024, the

Village sent me a letter stating that my water service line is made of lead. I have heard of cases of lead poisoning in Oak Park: a family friend's adult daughter and infant granddaughter tested positive for lead poisoning about two years ago.

6. I know there is no safe level of lead in drinking water. Because I suspected that my aging infrastructure could be lead, I always let my water run for a while before I use it, to flush out lead particles that may have settled in my pipes overnight. Now that the Village has officially notified me that my water service line is lead, I am considering filtering my water, and I am anxious to learn how and when Oak Park plans to replace the lead line.

7. I want my lead line replaced not only for my own health but for the health of my two grandchildren (ages 6 and 8), who also live in Oak Park and visit me often. I also believe it is extremely important to replace the lead line for the health of any family that will move into my house in the future.

8. Despite what I believe is an urgent problem, Oak Park did not provide me with information on who will pay for the replacement, and was vague on the timeline for when it will happen. Replacing the lead line with likely cost me thousands of dollars out of pocket. Since my only income is Social Security, I would be hard-pressed to replace the line myself. At a minimum, I hope that my municipality offers a cost-sharing approach. Since this is a nation-wide public health problem, and Illinois is one of the most heavily impacted states, the government should help.

9. The EPA rule requiring all lead service lines to be replaced in ten years is a step in the right direction. These replacements should be pursued with urgency. It should not take 10 years of my grandchildren's formative years. It is really scandalous that Chicago has 20 years to replace all of its lead service lines. Children are drinking water with lead contamination. No one's child should be at risk of developing learning disabilities or other health problems due to lead in drinking water. I believe that action should be taken on an urgent basis.

10. I am now thinking about getting my tap water tested. While our Public Works Department issues an annual report on water quality, in the past I had not studied the reports. Now that I know I have a lead service line, I would like additional information about the lead level in my water. I support the EPA's new rule's requirement for water systems to offer to sample for lead in the tap water of any person served by a lead service line who requests it.

11. In general, I think there needs to be more publicity of this problem and stronger federal regulation to leverage urgent action on lead in water. Even though more work needs to be done, I think the courts should uphold EPA's new rule, which is an important step in the right direction.

12. I strongly support NRDC's lawsuit to defend the new EPA rule. It would be a terrible outcome for my family and community if we went back to the old rule, because then lead lines would be replaced at an even slower rate or not at all; and other treatment actions would not happen except in even more severe cases of system-wide lead contamination. Since there is no safe level of lead exposure, we

should escalate rather than roll back efforts to get the lead out of our drinking water.

I declare under penalty of perjury that the foregoing is true and correct.

Jacqueline Leavy
Jacqueline Leavy

December 11, 2024
Date

Declaration of Autumn Tarleton

I, Autumn Tarleton, declare as follows:

1. My name is Autumn Tarleton. I have personal knowledge of the matters stated herein.

2. I have been a member of NRDC since 2019. In addition to NRDC, I am very active with a variety of environmental groups both nationally and locally, like Sierra Club and New York Renews.

3. I currently live in Brooklyn, NY with my partner and our daughter who is 8 years old. Our apartment building was built around World War I and we have been living in our loft for many years.

4. When our daughter was around 1 year old, her blood panel came back with a 1 μg/dL on her lead levels. The doctor gave me some paperwork on the effects of lead poisoning in children, and that caused me to go down a huge rabbit hole trying to remove any possible sources of lead from our apartment. We completely changed the way that we live. First, we immediately got a lead test for our water from the city. The results said that lead was not detectable, but out of an abundance of caution we still bought some highfalutin water filtration system for our drinking water called Aquaspace, because I know that lead in drinking water can vary over time. We now don't drink anything other than filtered water.

5. In addition to ensuring our water was safe, we worried about lead paint in our building, and we worried about any possible lead that we were tracking into the apartment. I even reached out to my daughter's school which was in an old

brownstone building to make sure they tested their water. This experience took a huge financial and emotional toll on our family.

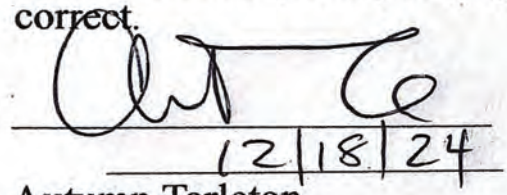
6. Having gone down this rabbit hole, I learned a lot about the negative health effects of lead in drinking water for both children and adults. The biggest worry for me was that lead poisoning can cause neurological differences.

7. I like that EPA is bringing the lead action level down. Lead levels in water should be at a completely sustainable and healthy level. Because I know there is no safe level of lead, I think the lowered level is helpful progress.

8. Also, I really want the lead pipe replacements to happen for the sake of other families. Despite this, I have some reservations about what the lead pipe replacement process will look like in New York City. I think it is a huge undertaking and honestly the rule sounds too good to be true. Real estate is king in New York, and unless water systems are legally required to do the replacements, they'll never get done because landlords won't bother to arrange for or pay for them, even if it means children continue to drink poisoned water.

9. Water is a basic human need, and we must do everything we can to ensure it is safe. I completely support NRDC's involvement in defending the EPA's new rule.

I declare under penalty of perjury that the foregoing is true and correct.



12/18/24

Autumn Tarleton

Date

Declaration of Gina Trujillo

I, Gina Trujillo, declare as follows:

1. I am the Director of Membership at the Natural Resources Defense Council, Inc. (NRDC). I have been in that position since January 1, 2015, and I have worked at NRDC in the membership department for more than 30 years.

2. My duties include supervising the preparation of materials that NRDC distributes to members and prospective members. Those materials describe NRDC and identify its mission.

3. NRDC is a membership organization incorporated under the laws of New York. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code. NRDC's headquarters are located at 40 West 20th Street, New York, NY 10011.

4. NRDC's mission statement declares that "The Natural Resources Defense Council's purpose is to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends." NRDC works to ensure the rights of all people to clean air, clean water, and healthy communities. NRDC'S mission includes protecting the health and safety of NRDC's members by reducing and

preventing exposure to toxic chemicals, including lead, and by ensuring the safety of drinking water.

5. NRDC is committed to ensuring that all communities have access to clean and affordable drinking water. NRDC has encouraged EPA to adopt strict limits on chemicals in drinking water, advocated for improvements to drinking water infrastructure nationwide, and brought suit to enforce existing drinking water regulations.

6. Over more than 30 years, NRDC has called on EPA to adopt stronger regulations for lead in drinking water. For example, NRDC has delivered testimony to Congress multiple times about the dangers of lead in drinking water and the need for stronger standards,[1] as well as

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[1] *See, e.g.*, Impacts of Lead Poisoning on Low-Income and Minority Communities: Hearing on H.R. 2840 Before the Subcomm. on Health and the Envt. of the H. Comm. on Energy and Commerce, 102d Cong. 21-33 (1992) (statement of John H. Adams, Executive Director, NRDC); Hearing on S. 1316 Before the S. Comm. on Envt. and Pub. Works, 104th Cong. 50-52, 97-101 (1995) (statement of Erik Olson, Senior Attorney, NRDC); Hearing on H.R. 2771, to Amend the Safe Drinking Water Act to Reauthorize the New York City Watershed Protection Program, Before the Subcomm. on Envt. and Hazardous Materials of the H. Comm. on Energy and Commerce, 108th Cong. 32-33, 37-38 (2004) (statement of Erik Olson, Senior Attorney, NRDC); Detection of Lead in the DC Drinking Water System: Hearing Before the Subcomm. on Fisheries, Wildlife, and Water of the S. Comm. on Envt. and Pub.

the need for increased federal funding for service line replacements.[2] NRDC has also produced multiple reports on lead in drinking water lead service lines, along with policy recommendations.[3] In addition, NRDC educates its members and the general public about lead in drinking water.[4]

Works, 108th Cong. 303-310 (2004) (statement of Erik Olson, Senior Attorney, NRDC).

[2] *See, e.g.*, Testimony of Erik Olson, Senior Strategic Director, Health and Food, NRDC, Before the Subcomm. of Envt. & Climate Change of the H. Comm. on Energy and Commerce, https://www.congress.gov/117/meeting/house/114537/witnesses/HHRG-117-IF18-Wstate-OlsonE-20220329.pdf (March 29, 2022).

[3] *See, e.g.*, Evelyn A. Mauss, et al., The Lead Contamination Control Act: A Study in Non-Compliance (June 1991), https://www.nrdc.org/sites/default/files/lead-contamination-control-act-study-non-compliance-report.pdf; Erik Olson & Kristi Pullen Fedinick, *What's in Your Water? Flint and Beyond* (June 2016), https://www.nrdc.org/sites/default/files/whats-in-your-water-flint-beyond-report.pdf; Kristi Pullen Fedinick et al., *Watered Down Justice* (Sept. 2019), https://www.nrdc.org/sites/default/files/watered-down-justice-report.pdf.

[4] *See, e.g.*, Courtney Lindwall, *How to Protect Yourself from Lead-Contaminated Water*, NRDC (Oct. 19, 2023), https://www.nrdc.org/stories/how-protect-yourself-lead-contaminated-water; Chakena D. Perry, *What the EPA's New Federal Water Rule Means for Chicagoans*, NRDC (Oct. 10, 2024), https://www.nrdc.org/bio/chakena-d-perry/what-epas-new-federal-water-rule-means-chicagoans.

7. Protecting human health by ensuring that EPA's Lead and Copper Rule: Improvements is implemented without delay is a paradigmatic example of NRDC's efforts to safeguard drinking water.

8. When an individual becomes a member of NRDC, his or her current residential address is recorded in NRDC's membership database. When a member renews his or her membership or otherwise makes a contribution to NRDC, the database entry reflecting the member's residential address is verified or updated.

9. NRDC currently has approximately 494,030 members. There are NRDC members residing in each of the fifty United States and in the District of Columbia and Puerto Rico. NRDC has members who live in places where lead has been detected in drinking water and who receive their drinking water through lead service lines.

10. When an individual becomes a member of NRDC, they authorize NRDC to take legal action on their behalf to promote the member's environmental and public health interests, including their interests in protecting public health from toxic chemicals in water.

I declare under penalty of perjury that the foregoing is true and correct.

Gina Trujillo
Gina Trujillo

12/18/24
Date

Declaration of Nicole Vandal

I, Nicole Vandal, declare as follows:

1. I am a Litigation Paralegal at the Natural Resources Defense Council, Inc. (NRDC).

2. I am aware that the U.S. Environmental Protection Agency (EPA) promulgated the Lead and Copper Rule: Improvements which was published in the Federal Register at 89 Fed. Reg. 86,418 (October 10, 2024).

3. I am aware that EPA sets an "action level" for lead, and that if ten percent of a water system's tap samples exceed this level, the water system must take additional actions to reduce the level of lead in its drinking water and perform specific public education activities. I am further aware that EPA's new rule has lowered the action level for lead from 15 parts per billion (ppb) to 10 ppb.

4. I was asked to compile and summarize recently available data on the 90th percentile concentrations for lead (i.e., the number used to determine whether a water system has exceeded the lead action level) that have been reported to the general public by the water systems serving the NRDC members who are submitting declarations

in this matter. To do so, I downloaded the two most recent Consumer Confidence Reports from each water system.

5. Attached as Exhibit A are true and correct copies of the 2023 and 2022 Water Quality Reports for the City of Albany, NY, PWS ID # NY0100189, which I downloaded from https://www.albanyny.gov/DocumentCenter/View/10853/Albanys-Annual-Water-Quality-Report-2023 and https://www.albanyny.gov/ArchiveCenter/ViewFile/Item/276. To the best of my knowledge and belief, these are the most recent publicly available Consumer Confidence Reports for the water system that serves NRDC member Elaine Doremus.

6. Attached as Exhibit B are true and correct copies of the 2023 and 2022 Water Quality Reports for the City of Chicago, PWS ID # IL0316000, which I downloaded from https://chicagoccr.org/docs/2023_WaterQualityReport.pdf and https://www.chicago.gov/content/dam/city/depts/water/ConsumerConfidenceReports/2022_WaterQualityReport.pdf. To the best of my knowledge and belief, these are the most recent publicly available Consumer

Confidence Reports for the water system that serves NRDC member Ellyn Jung.

7. Attached as Exhibit C are true and correct copies of the 2024 and 2023 Water Quality Reports for the Village of Oak Park, IL, PWS ID # IL0312250, which I downloaded from https://www.oak-park.us/sites/default/files/public-works/water-quality-reports/2024_water_quality_report.pdf and https://www.oak-park.us/sites/default/files/public-works/water-quality-reports/2023_water_quality_report_online_final.pdf. To the best of my knowledge and belief, these are the most recent publicly available Consumer Confidence Reports for the water system that serves NRDC member Jacqueline Leavy.

8. Attached as Exhibit D are true and correct copies of the 2023 and 2022 Water Quality Reports for New York City, NY, PWS ID # NY7003493, which I downloaded from https://www.nyc.gov/assets/dep/downloads/pdf/water/drinking-water/drinking-water-supply-quality-report/2023-drinking-water-supply-quality-report.pdf and https://www.nyc.gov/assets/dep/downloads/pdf/water/drinking-

water/drinking-water-supply-quality-report/2022-drinking-water-supply-quality-report.pdf. To the best of my knowledge and belief, these are the most recent publicly available Consumer Confidence Reports for the water system that serves NRDC member Autumn Tarleton.

9. In Table 1 below, I compiled the 90th percentile concentrations for lead that are reported in the water system Consumer Confidence Reports described in paragraphs 5 through 8 above.

Table 1. Summary of the 90th percentile concentrations reported in Consumer Confidence Reports for selected public water systems serving NRDC members.

PWS Name & ID No.	**Most recent 90th Percentile Lead Concentrations (ppb)**	**Previous Year 90th Percentile Lead Concentrations (ppb)**
City of Albany Water System (NY0100189)	16.6	13.13
City of Chicago Water System (IL0316000)	7.2	6.8
Village of Oak Park Water System (IL0312250)	3.14	3.14
New York City Water System (NY7003493)	11	11

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed on December 18, 2024.

Nicole Vandal

Exhibit A

Annual 2023 WQR

Water Quality Report

- Supply
- Purity
- Delivery
- @Home
- Data

ALBANY
NEW YORK | EST. 1686

DEPARTMENT OF WATER
THE CITY OF ALBANY, NEW YORK

May 1, 2024

Alcove Reservoir

Nature's Best, Locally Delivered.

Water from our watershed is treated to state & federal standards.

The Feura Bush filtration plant

Loudonville Reservoir

Introduction

The Albany Water Board issues an annual report describing the quality of your drinking water to comply with state regulations. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. The City of Albany Department of Water and Water Supply (NYS Water System ID # NY0100189) found elevated levels of lead in drinking water in some homes and buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water. This report provides an overview of last year's water quality, and includes details about where your water comes from, what it contains, and how it compares to State standards. We are pleased to provide you with this information because informed customers are our best customers.

If you have any questions about this report or concerning your drinking water, please contact the City of Albany, Department of Water and Water Supply @ 518-434-5300. If you want to learn more, please attend any of our regularly scheduled Albany Water Board meetings. The meetings are normally held the fourth Friday of each month at 9:00 A.M. at the 10 North Enterprise Drive of ces of the Albany Water Department. The schedule of Water Board meetings may be found @ our website; https://www.albanyny.gov/561/Albany-Water-Board

Message from the Commissioner

As your Water Commissioner I am entrusted with a duty that transcends words—a commitment to deliver high quality safe drinking water, reliability to your homes.

Water is life's essence, a resource we can't compromise on. At the City of Albany Department of Water & Water Supply, our mission is clear: exceed safety standards, providing you with affordable, high-quality water every moment, every day.

Our team of professionals works relentlessly, utilizing advanced technology to monitor and maintain our water supply. Yet, our commitment extends further—we are stewards of the environment, architects of sustainability and resilience, ensuring not just today's needs are met, but tomorrow's challenges are anticipated.

Join us in this journey; explore this report showcasing our dedication to excellence. Let's collectively ensure clean, safe water is not just a privilege but a promise—to you, our community, and generations to come.

Thank you for your trust and partnership.

Warm regards,

Joseph R. Coffey Jr. P.E.
Commissioner
City of Albany Department of Water & Water Supply

DEPARTMENT OF
WATER
THE CITY OF ALBANY, NEW YORK

View This Report Online
albanyny.gov/765/Water-Quality-Report

Sharing This Report

Please share this report with all people who drink our city's water, especially those who may not have received this report directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this link in a public place or distributing copies by hand and mail.

To receive a printed copy of this report, please email us: water@albanyny.gov

People with Special Health Concerns

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, and some elderly people and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

U.S. Environmental Protection Agency (EPA)/Centers for Disease Control CDC guidelines on appropriate means to lessen the risk of drinking water contaminants are available from the Safe Drinking Water Hotline (800) 426-4791

Table of Contents

How this document is organized

This story follows our water quality work from **source** and **treatment** through **delivery** to your **home**.

Supply

Albany's primary water source is the Alcove Reservoir and what we do to keep your drinking water safe

Pgs: 6 - 7

Purification

Purifying Albany's source water supply through multiple means.

Pgs: 8 - 9

Delivery

Delivering Albany's filtered water through 362 miles of pipeline to your home.

Pgs: 10 - 11

@Home

Educating the community on the importance of your property's plumbing and the key role it takes for keeping your water safe.

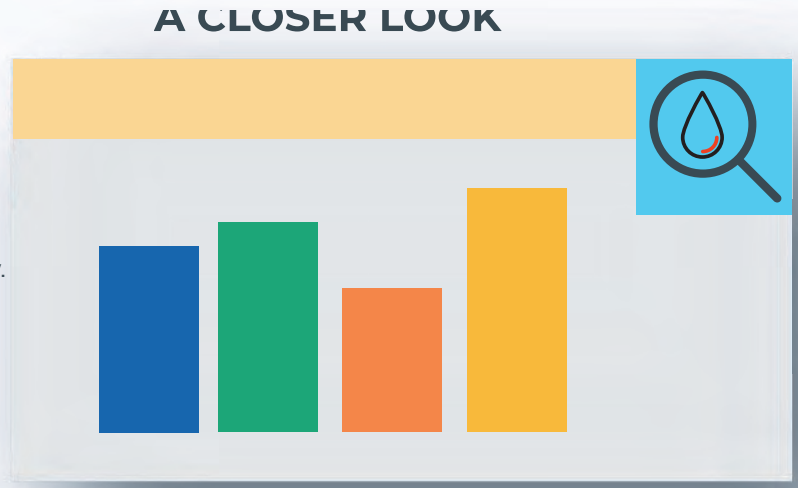
Pgs: 12 - 13

Data & More

Tables and Charts highlighting technical lab data and activities adhering to EPA standards.

Pgs: 14-24

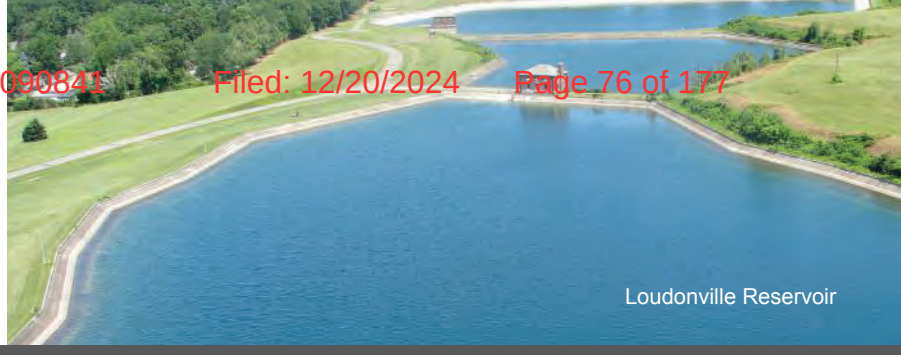
Look for these quick guides throughout the report



Charts and graphs let you see the data in a new way.

Handwritten notes explain how and why we do these tests.

Source & Treatment


Loudonville Reservoir

Your water begins in freshwater streams.

In general, 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 can pick up substances resulting from the presence of animals or from human activities. Atmospheric sources of contamination enter our water sources through rain and snowfall. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Health Department and FDA regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is the Alcove Reservoir, which is surface water and is located on the Hannacroix Creek in the Town of Coeymans. This reservoir has a capacity of 13.5 billion gallons, an average depth of 25 feet and a maximum depth of 75 feet. The Basic Creek Reservoir, in the town of Westerlo, is a secondary source that may be used to augment flow into the Alcove Reservoir to maintain the Alcove elevation. During 2023, our system did not experience any restriction of your water usage due to lack of source water or any other reason.

The water source receives treatment including pre-oxidation, disinfection, coagulation, sedimentation, filtration and pH and alkalinity adjustment for corrosion control at the Feura Bush Filtration Facility. Chlorine is added as a residual disinfectant to maintain microbiological quality throughout the distribution system. Ultraviolet light disinfection is a supplemental disinfectant used at the Loudonville Reservoir.

Protection starts @ the source

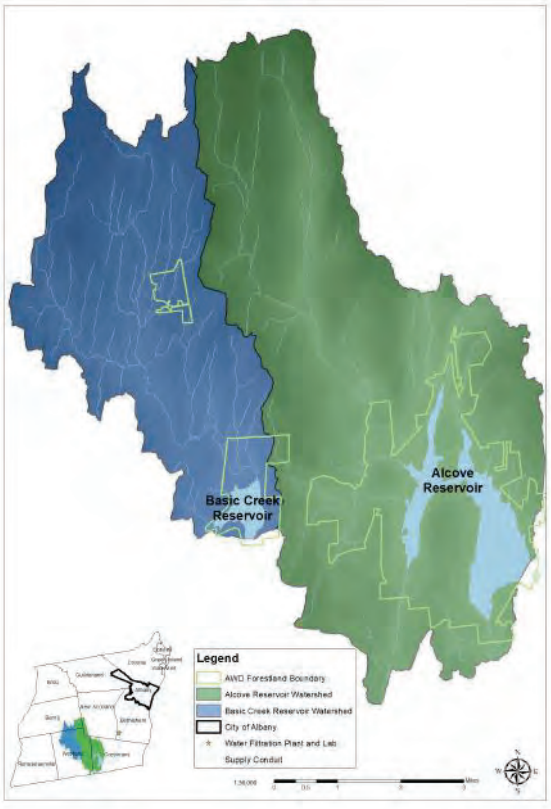
We take a holistic approach, beginning with Albany's water supply. We monitor our waterways across the watershed and look for potential sources of contamination. We keep track of water availability and flow.

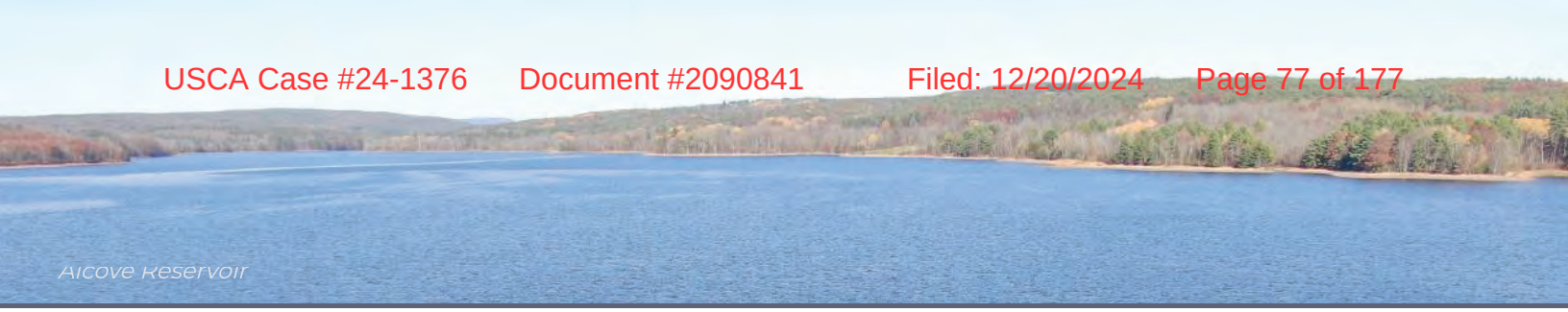

A. Asnby - Watersned Forester

Albany Source Watershed

Basic Creek Watershed.....

Alcove Reservoir Watershed.....





Our wide range of tools for protecting your water source includes:

Monitoring:
- Water quality sampling to understand current and long-term trends.
- Phytoplankton identification and counts to help predict taste and odor issues & potential harmful algae blooms.
- Routine watershed sanitation inspections to identify sources of contamination.

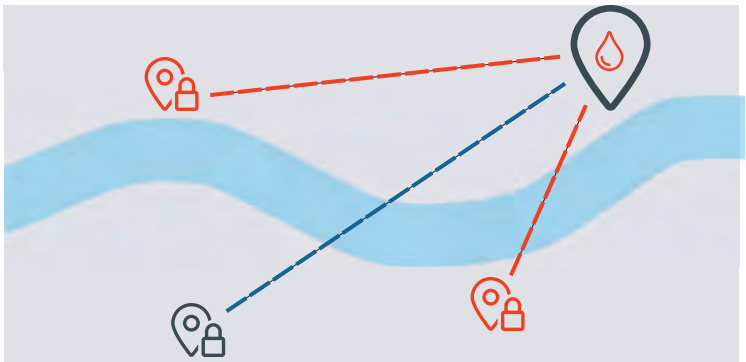
Field Projects:
- Annual stream macroinvertebrate surveys
- Watershed culvert assessments & replacements
- Invasive species monitoring & management
- Native tree planting

Partnerships:
- Sustainable forest management
- release of bio-control agents to combat the hemlock woolly adelgid invasion with Cornell University

INVASIVE SPECIES MANAGEMENT CAPITAL REGION

CORNELL UNIVERSITY FOUNDED A.D. 1865

Did You Know:
that our watershed surface area is over 1,600 acres? Which is almost twice the size of Central Park in New York City!



SECURITY SPOTLIGHT:

The Albany Water Department deploys a robust security staff to monitor and patrol our water source and supply system. This includes 17 miles of shoreline of the Alcove Reservoir which contains 13.5 billion gallons of raw drinking water and 4,316 acres of watershed forest land. Security staff also protect the filtration plant and the finished water reservoir in Loudonville, along with 20 miles of transmission pipeline right of way.

Drinking Water Treatment Plant:

An important early step in water's journey.

Feura Bush Filtration Plant opened:
November 10th 1932

Plant Operations Staff (L to R)

J. Ryseaorpn (Chief Operator), J. DeGiovine (Facilities Manager), R. Hussain (Lab Director), E. Hurley (Sr. Operator), T. Shaver (Maintenance Supervisor), R. Smith (Asst. Chief Operator)

Feura Bush Water Filtration Plant

Water from the Alcove Reservoir is delivered to the City of Albany via the 48-inch diameter cast iron pipe known as the Supply Conduit. The water travels about eight miles to a filtration plant located between the villages of Feura Bush and South Bethlehem. The treatment process includes aeration, chemical treatment with Sodium Permanganate and Polyaluminum chloride, settling basins, chlorine addition, and filtration through eight rapid sand filters, ultimately ensuring the delivery of pure water to the city.

Our treatment process:

These are some of the stages water goes through during normal operating condition.

How long does it take for the water to get from the reservoir to the city?

Aeration
225 aeration nozzles to break apart contaminants coming from the reservoir.

Mixing
Mixing basins to distribute PCH-180 to form floc so heavy organic & inorganic matter settles .

Settling
Settling Basins to allow H20 to rest and allow floc to settle for 4-5 hours.

Filtration
Filtration through 8 rapid sand filters, with the capacity to filter 32 million gallons per day.

Additives
Chlorine, hydrated lime & other additives to ensure disinfection & corrosion control through passage to & throughout the system.

Storage
Two-million gallon clearwell to release water to the 48 inch water main that supplies the city.

Delivery
382 miles of pipeline delivering H20 to your homes, businesses, schools and everything in-between.

Testing, Testing, Testing

The City of Albany's Department of Water and Water supply consistently meets regulatory standards by conducting over 100 total coliform samples each month. Each sample includes tests for chlorine residuals and turbidity and pH at various locations. On average, we collect between 110 to 140 samples per month. We also monitor 4 days a week water samples from our Loudonville Reservoir.

Additionally we collect City Tap samples from 1-2 locations daily for other chemical parameters like Alkalinity, Chloride, hardness and organic carbons etc. to ensure best water quality for our customers.

Final Touches

Chlorine

Added to filtered water to kill any bacteria, especially of the "coliform type" which may have passed through the filters.

Corrosion Control

Added to prevent pipes from corroding and releasing metals or chemicals into the water, which can affect water quality and pose health risks. This is especially important for lead water service pipes.

Ultraviolet Disinfection

Added at our Loudonville Reservoir to kill or inactivate harmful microorganisms, like bacteria and viruses, in water by exposing it to UV light.

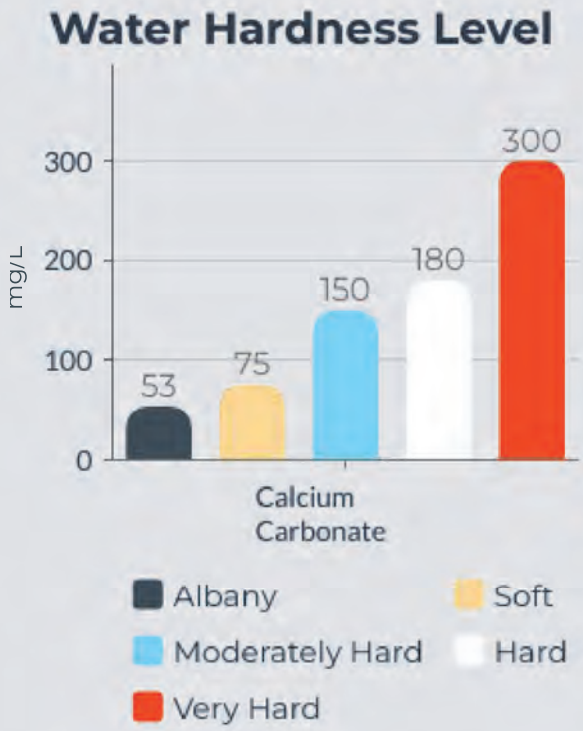
A closer look

Hardness

The hardness of water is determined by the minerals naturally dissolved in it.

Hardness can vary based on natural conditions - for example, a drought can impact hardness.

Hardness matters if you use your water for an activity, such as brewing beer or keeping a home aquarium. Customers often ask about hardness when researching appliances like dishwashers.



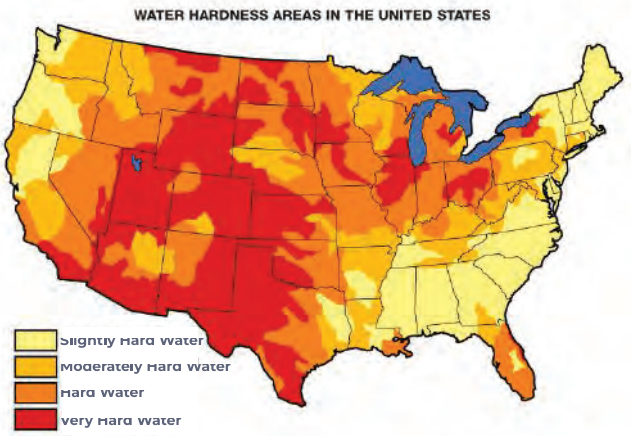
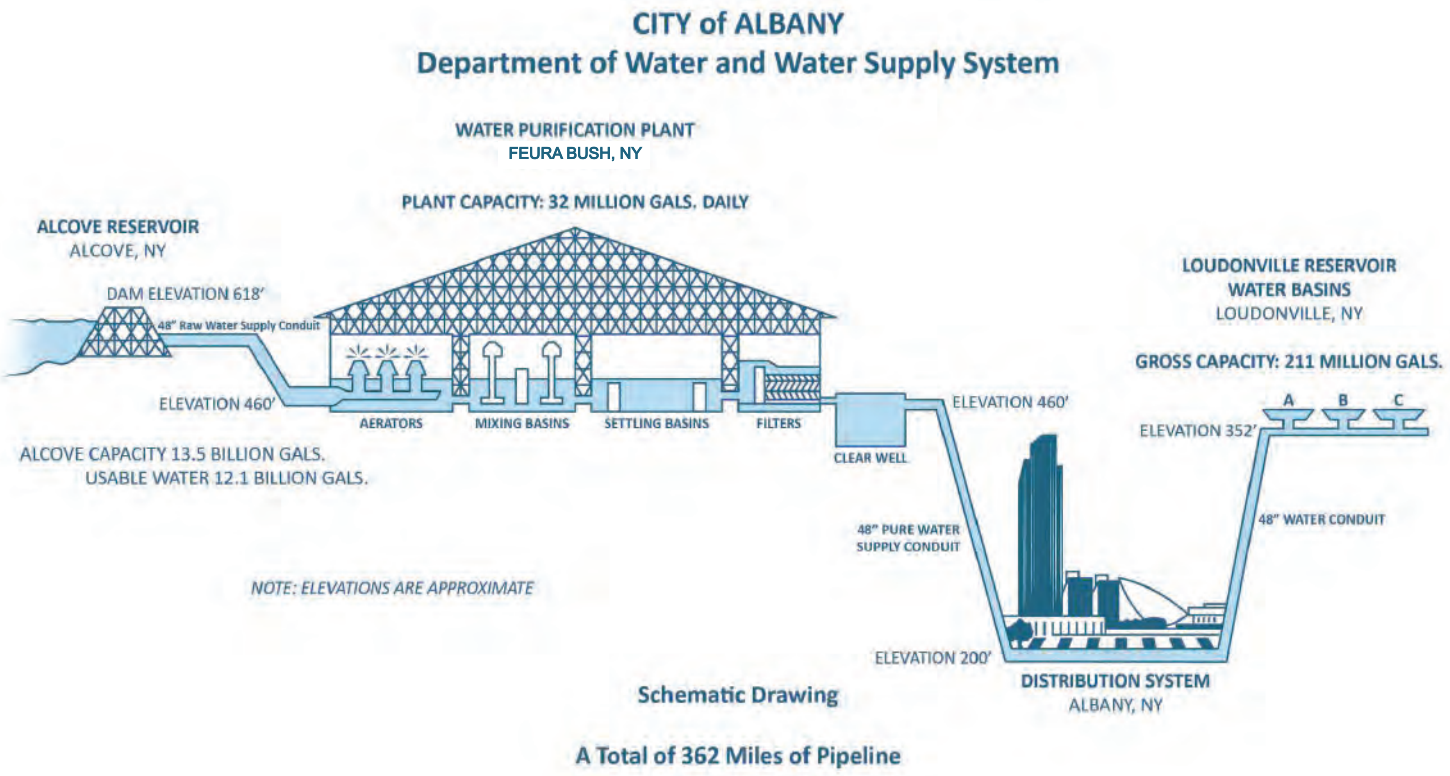


Table adapted from and prepared by the United States Geological Survey

Delivery



1926:
The Board of Water Supply was established which recommended a gravity supply system utilizing Hannacroix, Basic, and Catskill Creeks. Reservoirs on Hannacroix Creek (Alcove Reservoir) and Basic Creek (Basic Creek Reservoir) were built with a Filtration Plant in Feura Bush.

1932:
The present system of supply was completed, and on November 10, 1932, the new gravity fed water supply was placed in service. The filter plant and it's functions have essentially remained unchanged to this day with upgrades in facilities improvements and technology monitoring.

If you would like info on School Field Trips and Adult Tours please visit:
http://albanyny.go/2264/Tours-Field-Trips

Delivery Continued

A safe path through the system

Upon completion of the treatment process, the water is now ready for the trip to your home.

From the Water Filtration Plant, traveling roughly 22 miles, the water supply conduit travels to the Town of Bethlehem through the Normanskill Creek eventually entering the city just south of Whitehall Road. The conduit next travels northernly across the City of Albany through Tivoli Hollow to Loudonville Reservoir.

Other large water mains are fed from the supply conduit before it reaches Loudonville. These mains are known as feeder mains, and in the City of Albany system, are 16", 20", 24" and 30" in diameter. The purpose of the feeder mains is to carry large quantities of water to various parts of the city.

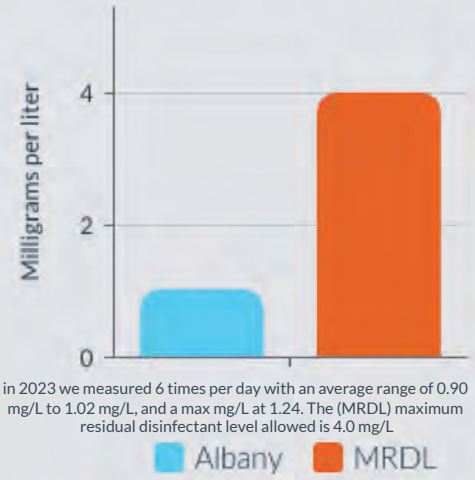
The feeder system then branches into a smaller system of watermains known as distribution mains. It's these smaller mains, 6", 8" and 12" in diameter, which actually carry the water to the individual homes and businesses.


Pine Bush Distribution System

A closer look

Residual Chlorine

This test is done throughout the system. It checks that the chlorine added at the Feura Bush Filtration Plant remains at levels that keep water fresh and safe while staying within regulations.



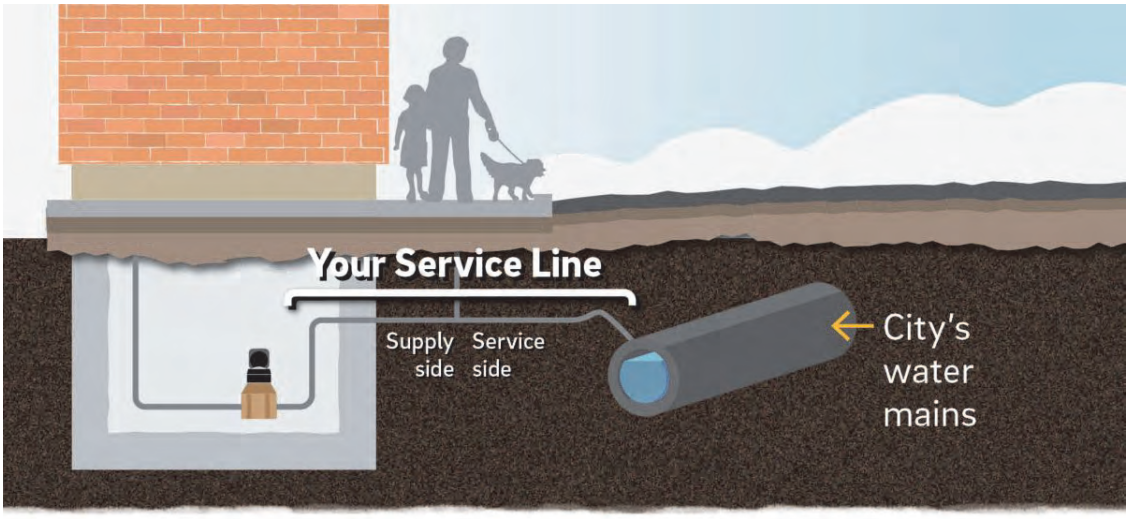
What this means for you

We travel the city to collect samples of drinking water from fire and police stations, pumping stations and more.

We do between 100 - 150 of these tests every month!

Meet your service line

You and your property's plumbing play a role in keeping water safe.



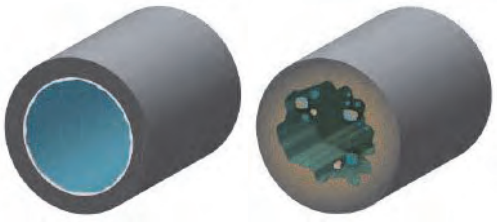
The service line is a pipe that carries clean water from the city's water mains into your home. It's a part of your property's plumbing.

The service line is the property owner's responsibility

Corrosion Control

Reducing risks from lead in a property's plumbing

We use special treatment methods to stop lead from seeping into our water through old pipes, a technique known as **corrosion control**. Testing in homes with lead plumbing confirms that this method effectively keeps lead levels within safe limits set by state and federal guidelines.



With corrosion control

Without corrosion control

What do we mean by "Flushing your pipes?"

Flushing pushes the water that is sitting in pipes out and down your drain until fresh water comes through the tap. When pipes are disturbed during construction or repairs, they might require flushing.

Fresh water starts at our water mains

Running the tap gets rid of water sitting in pipes

Healthy home habits

If you haven't used water for 6 hours or more: Run your cold water for 2-3 minutes. This will flush out water that's been sitting in your pipes ensuring that any sediment settles out.

It only costs a penny or two to ensure top-quality and can really improve the quality and taste.

A water household can conserve water by:

- Fix leaky faucets and running toilets
- Turn off faucets when brushing teeth
- Store water in clean and covered containers
- Install water-saving devices such as low-flow showerheads and aerators on faucets
- Insulate hot water pipes to reduce heat loss from the hot water heater.
- Use a timer on sprinklers
- Upgrade to water-efficient appliances, such as toilets with dual flush options and EnergyStar rated washing machines

Talking about tap water

Albany's tap water, is a source of pride for the Albany Water Department. Renowned for quality and cost-effectiveness, using tap water curbs plastic pollution. In Albany neighborhoods, safe drinking water is a priority. Residents, surprised by its affordability, turn on the tap and say no to plastic. Albany's tap water is superior in quality and we pride ourselves on being eco-friendly, and fostering a greener, healthier community.

If lead is detected in drinking water, it comes from a property's plumbing.

A home's older fixtures & valves:

It could be in fixtures, valves, and solder.
Lead was prohibited from plumbing materials in 1986

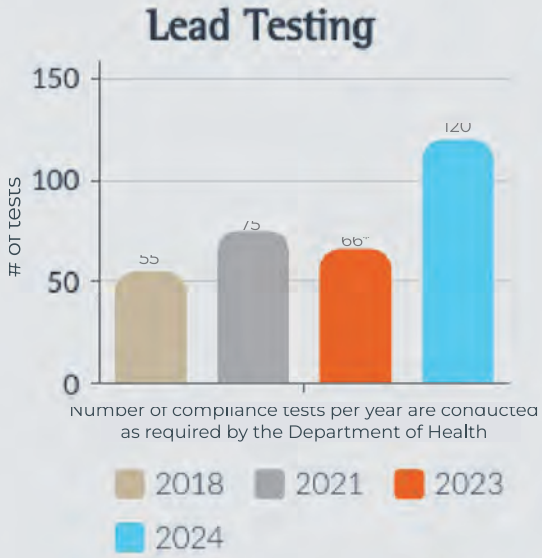
Service Line:

This pipe connects a property's plumbing to the water main in the street.
Homes built from 1960 or earlier may still have lead in sections of the service line.

Let's take a peek

Health Effects of Lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.



Number of compliance tests per year are conducted as required by the Department of Health

*tested in 2023 from July-Dec. due to rule changes

What this means for you

The EPA is updating guidelines for sampling. This will impact future results. We support this effort to make sure sampling is accurate, and to help identify homes with lead plumbing issues.

US EPA Guidelines

The EPA requires public water providers like the City of Albany Department of Water & Water Supply to monitor drinking water for lead at customer taps. If lead levels are higher than 15parts per billion (ppb) in more than 10% of taps sampled, water providers must inform customers and take steps to reduce lead in water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lean in drinking water is primarily from material and components with service lines and home plumbing.

The City of Albany Water Department and Water Supply is responsible for providing safe drinking water but cannot control the variety of material used in plumbing components. If you haven't turned on your tap for several hours, you can minimize the potential for lead exposure by flushing your tap before using water for drinking and 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 at: https://albanyny.gov/444/Lead-Drinking-Water

Lead Line Replacement Grants Available

Grant funding available up to $2000, to learn more go to **albanyny.gov/lead**

14 - 16 N. Enterprise Dr. Albany NY 12204

What we test for and how

Public drinking water systems monitor their treated drinking water for approximately 100 regulated contaminants. These regulatory parameters are defined within federal rules such as the Revised Total Coliform Rule, Surface Water Treatment Rule, Disinfectants and Disinfection Byproducts Rules, Lead and Copper Rule, and the Radionuclides Rule.

We monitor for the regulated parameters listed below.

Any contaminants found are noted in the tables on the following pages: 17 - 22

Microbiological Contaminants:

Total Coliform
Combined Filter - Effluent Turbidity
Distribution Turbidity

Inorganic Contaminants:

Alkalinity
Total Hardness
Calcium Hardness as CaC03
Chloride
Sodium
Sulfate
Arsenic
Barium
Chromium
Nickle
Thallium
Calcium
Copper
Lead
Dalapon
Pentachlorophenol

Disinfection Byproducts:

Total Trihalomethane
Haloacetic Acids
Total Organic Carbon
Chlorine Residual

Radionuclides

Alpha particles
Beta particles

Other factors that can impact drinking water Appealing

We work to ensure your water **looks,** tastes and smells the way it should.

To meet all water quality **taste and odor** guidelines, we test for the following: alkalinity, aluminum, chloride, color, hardness, iron, manganese, odor, pH, silver, sodium, sulfate, surfactants, total dissolved solids, turbidity, and zinc.

Temperature and Cloudiness
The temperature of the Alcove Reservoir varied seasonally in 2023 from approximately 34°–88° Fahrenheit. PWD does not treat the water for temperature.

Cloudiness in tap water most commonly happens when the cold water **from the water main is warmed up quickly in household plumbing.** Cold water and water under pressure can hold more air than warmer water and water open to the atmosphere.

When cold water comes out of your tap, it's simultaneously warming up and being relieved of the pressure it was under inside the water main and your plumbing. The milky white color is actually just tiny air bubbles. If you allow the glass to sit undisturbed for a short period, you will see it clear up.

City of Albany Population: **101,866**

Number of Service Connections: 25,000

2023 residential customers charged $3.11 per 100 cubic feet

$4.16 per 1000 Gallons

Facts & Figures

3,699,933,292
Billion **Gallons Metered in 2023**

2,423,708,915
Billion **Gallons unmetered in 2023**

16,959,456 million gallons
Average Daily Production

20,536,000
MAX Daily Production in gallons

39.1
% of the total amount produced

Are there contaminants in our drinking water?

As State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, metals including lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds and radioactive materials like Uranium and Radium. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently, though most of our data represented here is from 2023 analysis.

It should be noted that all drinking water, including bottled drinking water, should be reasonably 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 Safe Drinking Water Hotline at 800-426-4791 or the Albany County Health Department at 518-447-4620.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg.) (Range)	Unit of Measure	MCLG/ MRDLG	Regulatory Limit (MCL, MRDL,TT or AL)	Likely Source of Contamination
Microbiological Contaminants:							
Total Coliform[1]	No	3/13/2023 &9/13/2023	Two Positive sample	N/A	0	MCL 5% or more Positive of sites sampled per month	Naturally present in the environment.
Combined Filter Effluent Turbidity[2]	No	Five days per week	0.05 (0.03 – 0.13)	Yearly Avg. (Min-Max) NTU	N/A	TT < 1.0 NTU	Soil runoff.
	No	Six times daily	100 % <0.3	NTU	N/A	TT 95% of samples <0.30	Soil runoff.
Distribution Turbidity[3]	No	6/5/2023	0.38 (0.07 -2.94)	Yearly Avg. (Min-Max) NTU	NA	MCL 5 NTU	Soil run off
Inorganic Contaminants:							
Color	No	Five days per week	3.03 (1.0-7.0)	Color units	N/A	15.0 Color units	Natural metallic ions, humic and fulvic acids, dissolved plant components and treatment chemicals.
Odor	No	Five days per week	1.84 (1-3)	Threshold units	N/A	3 Threshold units	Decaying vegetation and metabolites of microbiota and disinfectants.
Alkalinity	No	Five days per week	44.3 (38.6-53.0)	mg/L of CaCO3	N/A	N/A	Naturally occurring
*Total Hardness	No	Five days per week	50.3 (44.2-58.8)	mg/L of CaCO3	N/A	N/A	Sedimentary rocks (lime stone) seepage, runoff from soil and treatment process.
Chloride	No	Five days per week	27.7 (23.8-29.8)	mg/L	N/A	MCL 250 mg/L	Soils, road salt.
Sodium[4]	No	11/28/2023	14.8	mg/L	NA	20.0 mg/L 270 mg/L	Occurs naturally in almost all waters.
Sulfate	No	Monthly	6.38 (5.24-7.28)	mg/L	N/A	MCL 250 mg/L	Occurs naturally in almost all waters.
Nitrate-Nitrogen (as N)	No	11/28/2023	0.109	mg/L	10 mg/L	10mg/L	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Barium	No	11/28/2023	0.0034	mg/L	2	2 mg/L	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Calcium	No	11/28/24	18.7	mg/L	N/A	N/A	
Copper[5]	No	2023	29.1 (1.05- 62.4)	µg/L	ND	AL 1300 µg/L	Corrosion of household plumbing systems; Erosion of natural deposits

Lead[6]	No	2023	16.6 (0.02-196)	µg/L	0	AL 15 µg/L	Corrosion of household plumbing systems; Erosion of natural deposits
Dalapon	No	12/05/2022	0.30 J	µg/L	NA	200 µg/L	Runoff from herbicide use in crop application
Pentachlorophenol	No	12/05/2022	0.0041 J	µg/L	NA	1.0 µg/L	Runoff from pesticide use
Disinfection Byproducts:							
Total Trihalomethane	No	Quarterly	58.5 (35.4-58.5)	µg/L	N/A	MCL 80 µg/L LRAA[7]	By-product of drinking water chlorination.
Total Haloacetic Acids	No	Quarterly	18.4 (13.2-18.4)	µg/L	N/A	MCL 60 µg/L LRAA	By-product of drinking water chlorination
Haloacetic Acids HAA5	No	2019-2020	19.5 (13.9-34.0)	µg/L	N/A	Not Regulated	UCMR4[9] Disinfection by-products,
Haloacetic Acids HAA6	No	2019-2020	2.20 (1.15-34.0)	µg/L	N/A	Not Regulated	UCMR4 Disinfection by-products,
Haloacetic Acids HAA9	No	2019-2020	21.7 (15.4-37.1)	µg/L	N/A	Not Regulated	UCMR4 Disinfection by-products,
Total Organic Carbon	No	2-3 days per week	1.74 (1.39-2.2.16)	mg/L	N/A	TT	Naturally present in the environment
Chlorine Residual Entry Point	No	Six times daily	1.02[10] (0.90-1.24)	mg/L	N/A	4.0 (MRDL)	Added to drinking water to inhibit microbial growth.
Radionuclides:							
Alpha particles	No	Weekly	0.42 (ND-1.2)	pCi/L	NA	15 pCi/L	Erosion of natural deposits.
Beta particles	No	Weekly	0.97 (ND-2.3)	pCi/L	NA	50 pCi/L[8]	Erosion of natural deposits.

Notes:

[1] Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Total coliforms were detected only in two samples in 2023, one sample on March 13th 1 out of 120 routine samples, less than 1.0% of the total samples for that month, and the second sample on September 13th, one out of 118 routine sample, less than 1% of the total samples for that month. Additional samples were subsequently collected and total coliforms were not detected in any of those repeat samples. Since total coliforms were detected in less than 5% of the samples collected during the month, the system did not have a MCL violation. It should be noted that *E. coli*, associated with human and animal fecal waste, was not detected in any of the samples collected.

[2] Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest turbidity measurement 0.13 NTU occurred on 9/25/23 with annual average 0.07 NTU (min 0.03 – max 0.13NTU). State regulations require that 95% of the turbidity samples collected have measurements below 0.30 NTU.

[3] Distribution turbidity is a measure of the cloudiness of the water found in the distribution system. We monitor it as high turbidity can hinder the effectiveness of disinfectants and it is a good indicator of water quality. A distribution system turbidity violation occurs when the monthly average of the results of all distribution samples collected in any calendar month exceeds the MCL. Our single highest distribution turbidity measurement detected was 2.94 NTU on June 5th 2023 with monthly average 0.95 NTU, which was far below the state maximum contaminant level.

[4] Water containing more than 20 mg/L of sodium should not be used for drinking water by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

[5] The level presented represents the 90th percentile of the 66 sites tested in 2023. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 66 samples were collected at your water system and the 90th percentile value was 29.1µg/L with the highest detected value of 62.4µg /L. The action level (1300µg/L) for copper was not exceeded at any of the sites tested.

Notes Continued:

[6] The level presented 16.6µg /L represents the 90[tn] percentile of the 66 samples collected July-December in 2023. The action level (15µg/L) for lead was exceeded at seven (7) of the 66 sites tested. The highest level detected was 196 µg/L.
[7] Locational Running Annual Averages for total Trihalomethane and Haloaceteic acid.
[8] The State considers 50 pCi/L to be the level of concern for beta particles.
[9] Unregulated contaminants Monitoring Rule 4
[10]Compliance is based on a running arithmetic average, computed quarterly, of monthly averages of all samples collected by the system. If the running annual average exceeds the MRDL, the system is in violation and must notify the public.
[11] J. Notifies estimated concentration above the method detection limit but below the reporting limit.
[12] Unregulated Perfluoroalkyl Substances.
[*] Not certified

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible.

Maximum Contaminant Level Goal (MCLG):
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety.

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

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. MRDLG's do not reflect the benefits of the use of disinfectants for control of microbial contaminants.

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

Non-Detects (ND): Laboratory analysis indicates that the constituent is below detection level or not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per Liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million (ppm)).

Micrograms per Liter (µg/L): Corresponds to one part of liquid in one billion parts of liquid (parts per billion (ppb)).

Nanograms per liter (ng/l): corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picocuries per Liter (pCi/L): A measure of radioactivity in water.

Non-Detected Contaminants

According to State regulations, the Albany Water Board routinely monitors your drinking water for various contaminants.

Contaminants that were analyzed for but were found to be below detection limits are not included in this report, however, all required testing was completed according to Local, State, and Federal laws. {A list of non-detected contaminants can be found on City of Albany, Department of Water and Water Supply Website.}

The contaminants that were detected in your drinking water are included in the Table of Detected Contaminants. Additionally, your water is tested from various locations in the distribution system for coliform bacteria four days per week along with free chlorine residuals and turbidities.

What does this information mean?

As you can see in the table, our system had no violations in the reporting year 2023. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

The City of Albany Water Department has implemented a program to minimize lead levels in your drinking water. This program includes: 1) adjusting pH and alkalinity levels to minimize corrosion; 20 the replacement of lead service lines as distribution lines are replaced; and, 3) public education. The water department conducted lead and copper testing on select 66 residences in 2023. Most of the residences for 2023 testing were included from the 2021 lead and copper compliance list and remainder locations were picked after a survey to include houses from all wards in the City of Albany and were confirmed with Lead present at their meters. The 90th percentile of the samples collected was 16.6 µg /L for lead, exceeded the action level of (15µg/L) with total seven (7) locations above action level of the 66 sites tested. The highest level detected was 196 µg/L at one location due to not properly following the sampling instructions.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems. If you are concerned about lead in your water and wish to have your water tested contact the City of Albany Water Quality Laboratory Director @ 518-635-4408. Information on lead drinking water, testing methods, and steps you can take to minimize exposure is available @ ***http://www.epa.gov/safewater/lead***

According to EPA and NYS Regulations the City of Albany, being a large water system, requires standard monitoring of lead and copper from 60 single-family homes with LSLs twice a year starting in July 2023. This effort will provide the Water Department with information to help us direct our lead service replacement program most effectively.

In 2023, **350** lead water services were replaced, and Albany Water Board provided **205** grants totaling **$322,800** to property owners replacing lead water lines. The remaining were performed with ARPA grand funding or by AWD staff. Inventory efforts continue, and the public-facing inventory map of water service line materials was published in 2023. The Albany Water Board continues to pursue state and federal grant funding to enhance both inventory and replacement programming in 2024.

Is our water system meeting other rules that govern operations?

We are required to continually monitor your drinking water daily, monthly, quarterly, annually, or after multiple years for different contaminants and report to Local, State, and Federal authorities. During 2023, our system complied with applicable operating, monitoring, and reporting requirements for drinking water regulations.

In 2020 NYS adopted new Mazimum Contaminant Levels (MCLs) for Perfluorooctanoic acid (PFOA), Perfluorooctane Sulfonate (PFOS), and 1,4-Dioxane. Initially, we were required to monitor your drinking water for these contaminants quarterly for one year. All the results for this initial monitoring were below detection limits for all three contaminants and are an indicator that your drinking water meets all health standards.

Information on Unregulated Contaminants

The Safe Drinking Water Act (SDWA) establishes periodic monitoring (almost every 5 years) through the Unregulated Contaminants Monitoring Rule (UCMR) to assess the occurrence of select constituents from the Contaminant Candidate list for potential regulatory consideration. UCMR4 the 4th cycle of UCMR monitoring, in 2019-2020 we were required to collect and analyze drinking water samples for 30 unregulated contaminants. Most of the contaminants were below detection level except some of the new Brominated Haloacetic acids which were monitored for 4 quarters from 8 different distribution locations the averages with Minimum and Maximum values are listed in the detected contaminants table. If you are interested and want to learn more you may contact Laboratory Director Dr. Rifat Hussain @ 518-635-4408.

In 2022 our system also performed additional monitoring (outside of EPA's UCMR program) for unregulated Perfluoroalkyl and Polyfluoroalkyl Substances requested by the State. Unregulated perfluoroalkyl substances that were detected as part of POFA/PFAS sampling are reported in the table below.

Unregulated Perfluoroalkyl Substances

Contaminants	Violation Yes/No	Date of Sample	Level Detected (Avg.) (Range)	Unit Measurement	MCLG/ MRDLG	Regulatory Limit (MCL, MRDL,TT or AL)	Likely Source of Contamination
Perfluorohexanoic acid	No	12/08/2022	0.46 J[1]	ng/L	NA	Not Regulated	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanoic acid	No	12/08/2022	0.68 J	ng/L	NA	Not Regulated	
Perfluoropentanoic acid	No	12/08/2022	0.32 J	ng/L	NA	Not Regulated	
Perfluorooctanoic acid	No	12/08/2022	0.68 J	ng/L	NA	Not Regulated	

1 J: Notifies estimated concentration above the method detection limit but below the reporting limit.

Starting in September 2023, the Albany Water system is monitoring a new set of unregulated 29 PFAs and a metal lithium under UCMR5 for four (4) quarters to determine if any FPAS are present and at what level in your water. So far in 2 / 4 quarters monitoring have been completed and none of the unregulated PFAs or Lithium has been detected in your drinking water.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded State and Federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone or an 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Why Save Water & How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life.
- Saving water lessens the strain on the water system during a dry spell or drought helping to avoid severe water use restrictions so that essential firefighting needs are met.
- You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:
- Run only full loads in dishwashers and washing machines.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you may save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons per year
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, it moved, you have a leak.

2023 System Improvements

Supply Reservoirs

Construction was completed on a new office building and garage buildings for watershed staff. Design work proceeded for dam safety improvements at the Basic Creek Reservoir and Rensselaer Lake.

Feura Bush Filtration Plant

Construction began for replacement of filter valves and actuators. This work will be proceeding in 2024. Projects now under design include rehabilitation of the Aeration Building, rehabilitation of the Mixing Basins, replacement of the Hydrated Lime feed system, and a new Maintenance Building.

Distribution System

Water mains were replaced on Krumkill Rd.

Loudonville Reservoir

The new UV equipment was purchased and an installation contract was let. The completion of all installation has occurred in 2024

Water Pumping Station Tanks

New equipment was purchased to replace the pumps and piping at the Upper Service Pump Station. The equipment was installed in 2023.

35 Erie Boulevard

Major improvements have been completed at 35 Erie Boulevard. The old office buildings and sheds were demolished and new buildings and sheds have been constructed. This location is where we store pipe, backfill material, blacktop, precast materials, and castings. This work was completed in 2023.

Grants & Financing

The Department has made applications for funding to New York State EFC (Environmental Facilities Corporation), and has been awarded grants for upcoming projects amounting to 75% of project costs with zero percent interest.
Applications have been made for grants and financing for Lead Service Line Replacement.

References:

- Water Hardness Map: Table adapted from h2odistributors.com *Water Treatment Fundamentals*, prepared and distributed by the https://www.h2odistributors.com/info/hard-water-map/
- https://www.usgs.gov/special-topics/water-science-school/science/hardness-water | https://wqa.org/learn-about-water/#What%20is%20hard%20water?
- Average Residual Chlorine Levels: Water Quality Association; https://wqa.org/wp-content/uploads/2022/09/2014_Chloramine.pdf
- Front Cover Photo of Alcove Reservoir Courtesy of LightHawk

Closing

Thank you for allowing us to continue to provide you and your family with quality drinking water with no water quality violation in year 2023. We continually undertaking measures to maintain and improve our water quality through our treatment and monitoring processes. We ask that all of our customers help us protect our water sources, which are the heart of our community. Please call our office at **(518) 434-5300** if you have questions concerning your drinking water. Should you have any other questions concerning your water quality, you can contact the **Albany County Health Department at (518) 447-4620**

ALBANY
NEW YORK | EST. 1686

DEPARTMENT OF

WATER

THE CITY OF ALBANY, NEW YORK

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518-434-5300
water@albanyny.gov

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DEPARTMENT OF WATER & WATER SUPPLY
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ALBANY, NEW YORK 12204
TELEPHONE (518) 434-5300
FAX (518) 434-5332

KATHY M. SHEEHAN
MAYOR

JOSEPH E. COFFEY, JR, P.E.
COMMISSIONER

Annual Drinking Water Quality Report for 2022

CITY OF ALBANY
10 NORTH ENTERPRISE DRIVE
(Public Water Supply ID # NY 0100 189)

Dear Customer,

We are pleased to provide you with our 2022 Annual Drinking Water Quality Report. We are proud to report that Albany water continues to meet all State and Federal water quality standards. The City of Albany has one of the finest and most reliable water supply systems in the nation.

Sustainability is a Core Value of the Albany Water Board and the Department of Water & Water Supply, and we take our responsibility as stewards of the City's water resources very seriously. In 2022, we continued to benefit from a permanent Conservation Easement with The Mohawk Hudson Land Conservancy to ensure long-term conservation of our valuable watershed properties. Our "Working Woodlands" and Carbon Development and Marketing programs has generated $502,000 in revenue to date that we reinvest in watershed management and protection programs.

An element of Sustainability is the wise use of our water. While our system is fortunate to have an adequate amount of water to meet our present and future demands, it is prudent for all of us to lead by example and practice water conservation. You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Our annual report includes tips and recommendations for water conservation practices.

Since 2014, we have invested over $126 million in improvements to our infrastructure. In 2022, the Albany Water Board made over $23 million capital improvements in all facets of our water and sewer systems. These projects were financed through the New York State Drinking Water Revolving Fund, including $1.9 million in grant funds.

Among the projects completed in 2022:

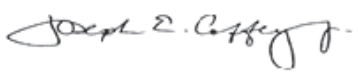
- The new Alcove Sodium Permanganate Facility was completed and placed into operation. Sodium permanganate is added for taste and odor control, to oxidize iron and manganese and to reduce TOC (Total Organic Carbon). Feeding permanganate at the source provides a greater benefit to water quality.
- A major upgrade of Feura Bush Electrical Systems was completed.
- Water mains were replaced on Crescent Drive, Lancaster Street, South Pearl Street, and Commerce Avenue.
- Lead services were replaced as part of water main and sewer main replacement projects. ARPA funds were awarded to allow additional lead services to be replaced. In 2022, 478 full lead water services were replaced, and the Albany Water Board provided 215 grants totaling $322,000 to property owners replacing lead water services.
- Major improvements were completed at 35 Erie Boulevard. The old office buildings and sheds were demolished and new buildings and sheds were constructed. This location is where we store pipe, backfill material, blacktop, precast materials, and castings. The new facilities will also be used for training activities.

We continued to develop an inventory of lead water services. In 2023, we will publish on our website, an interactive map of all properties in the city noting the materials of the water service from the main to the shut off to the meter.

The Albany Water Board is committed to replacing every lead water service in the City of Albany. We continue to expand our public education and outreach to customers emphasizing lead in drinking water.

We are fortunate to have a water system planned and designed by visionary predecessors, and we remain committed to doing the best job possible so that future generations will be able to rely upon the pure and abundant waters of Albany's Alcove Reservoir.

Respectfully,



Joseph E. Coffey, Jr., P.E.
Commissioner

ALBANY
NEW YORK | EST. 1686

Annual Drinking Water Quality Report for 2022

CITY OF ALBANY
DEPARTMENT OF WATER & WATER SUPPLY
10 NORTH ENTERPRISE DRIVE
(Public Water Supply ID# NY 0100 189)

Introduction

The Albany Water Board issues an annual report describing the quality of your drinking water to comply with state regulations. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. We are proud to report that in 2022 your water met all state drinking water health standards and our system had no violations of maximum contaminant levels. This report provides an overview of last year's water quality, and includes details about where your water comes from, what it contains, and how it compares to State standards. We are pleased to provide you with this information because informed customers are our best customers.

If you have any questions about this report or concerning your drinking water, please contact the City of Albany, Department of Water and Water Supply at 518-434-5300. If you want to learn more, please attend any of our regularly scheduled Albany Water Board meetings. The meetings are normally held the fourth Friday of each month at 9:00 A.M. at the 10 North Enterprise Drive offices of the Albany Water Department. The schedule of Water Board meetings may be found at our website; www.albanyny.gov/waterquality.

Where does our water come from?

In general, 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 can pick up substances resulting from the presence of animals or from human activities. Atmospheric sources of contamination enter our water sources through rain and snowfall. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Health Department and FDA regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is the Alcove Reservoir, which is surface water and is located on the Hannacroix Creek in the Town of Coeymans. This reservoir has a capacity of 13.5 billion gallons, an average depth of 25 feet and a maximum depth of 75 feet. The Basic Creek Reservoir, in the town of Westerlo, is a secondary source that may be used to augment flow into the Alcove Reservoir to maintain the Alcove elevation. During 2022, our system did not experience any restriction of your water usage due to lack of source water or any other

reason.

The water source receives treatment including pre-oxidation, disinfection, coagulation, sedimentation, filtration and pH and alkalinity adjustment for corrosion control at the Feura Bush Filtration Facility. Chlorine is added as a residual disinfectant to maintain microbiological quality throughout the distribution system. Ultraviolet light disinfection is a supplemental disinfectant used at the Loudonville Reservoir.

Facts and Figures

Our water system serves over 98,000 City residents, commercial, institutional and industrial accounts through approximately 25,000 service connections, and the Towns of Bethlehem and Guilderland through purchase water agreements. The daily water production averaged 17,575,874 gallons, with maximum daily production of 22,926,000 gallons. This year the amount of water delivered to the system was 6,338,754,328 gallons. The amount of water metered at customer connections was 4,155,287, 447 gallons (34.5% of the total amount produced). This leaves an unaccounted for total of 2,183,466,900 gallons. Unaccounted for includes water was used for fighting fires, leakage and inaccuracies in metering. In 2023 the meters at the Feura Bush Filtration Plant will be replaced which will increase the accuracy for water produced.

In 2022, residential water customers were charged $2.96 per 100 cubic feet of water, which equals $3.96 per 1000 gallons.

Are there contaminants in our drinking water?

As State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, metals including lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds and radioactive materials like Uranium and Radium. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently, though most of our data represented here is from 2022 analysis.

It should be noted that all drinking water, including bottled drinking water, should be reasonably 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 Safe Drinking Water Hotline at 800-426-4791 or the Albany County Health Department at 518-447-4620.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg.) (Range)	Unit of Measure	MCLG/ MRDLG	Regulatory Limit (MCL, MRDL,TT or AL)	Likely Source of Contamination
Microbiological Contaminants:							
Total Coliform[1]	No	7/11/22	One Positive sample	N/A	0	MCL 5% or more Positive of sites sampled per month	Naturally present in the environment.
Combined Filter Effluent Turbidity[2]	No	Five days per week	0.05 (0.03 – 0.12)	Yearly Avg. (Min-Max) NTU	N/A	TT < 1.0 NTU	Soil runoff.
	No	Six times daily	100 % <0.3	NTU	N/A	TT 95% of samples <0.30	Soil runoff.
Distribution Turbidity[3]	No	10/20/2021	0.23 (0.06 -0.92)	Yearly Avg. (Min-Max) NTU	NA	MCL 5 NTU	Soil run off
Inorganic Contaminants:							
Color	No	Five days per week	3.21 (1.0 - 5.0)	Color units	N/A	15.0 Color units	Natural metallic ions, humic and fulvic acids, dissolved plant components and treatment chemicals.
Odor	No	Five days per week	1.85 (1-3)	Threshold units	N/A	3 Threshold units	Decaying vegetation and metabolites of microbiota and disinfectants.
Alkalinity	No	Five days per week	46.6 (43.2-53.0)	mg/L of CaCO3	N/A	N/A	Naturally occurring
Total Hardness	No	12/05/2022	53.0	mg/L of CaCO3	N/A	N/A	Sedimentary rocks (lime stone) seepage, runoff from soil and treatment process.
Calcium Hardness as CaCO3	No	12/05/2022	43.9	mg/L of CaCo3	N/A	N/A	Sedimentary rocks (lime stone) seepage, runoff from soil and treatment process
Chloride	No	Five days per week	27.3 (24.8-30.2)	mg/L	N/A	MCL 250 mg/L	Soils, road salt.
Sodium[4]	No	12/05/2022	16.7	mg/L	NA	20.0 mg/L 270 mg/L	Occurs naturally in almost all waters.
Sulfate	No	Monthly	6.15 (5.01-6.67)	mg/L	N/A	MCL 250 mg/L	Occurs naturally in almost all waters.
Arsenic	No	12/05/2022	0.36 J[11]	µg/L	N/A	10.0 µg/l	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	No	12/05/2022	0.0033	mg/L	2	2 mg/L	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Chromium	No	12/05/22	0.69 J	µg/L	N/A	100 µg/l	Discharge from steel and pulp mills; Erosion of natural deposits
Nickle	No	12/05/22	0.00024 J	mg/L	N/A	0.1mg/L	Metal pipes in contact
Thallium	No	12/05/2022	0.035 J	µg/L	0.0005	2.0 µg/l	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
Calcium	No	12/05/2022	17.60	mg/L	N/A	N/A	
Manganese	No	12/05/2022	0.0037	mg/L	0.3	0.3mg/L	NaMnO4 added to drinking water to Improve Water Quality
Copper[5]	No	2021	40.04 (ND-108.0)	µg/L	ND	AL 1300 µg/L	Corrosion of household plumbing systems; Erosion of natural deposits
Lead[6]	No	2021	13.13 (ND-31.5)	µg/L	0	AL 15 µg/L	Corrosion of household plumbing systems; Erosion of natural deposits
Dalapon	No	12/05/22	0.30 J	µg/L	NA	200 µg/L	Runoff from herbicide use in crop application
Pentachlorophenol	No	12/05/2022	0.0041 J	µg/L	NA	1.0 µg/L	Runoff from pesticide use
Disinfection Byproducts:							
Total Trihalomethane	No	Quarterly	54.3 (27.0-63.6)	µg/L	N/A	MCL 80 µg/L LRAA[7]	By-product of drinking water chlorination.
Haloacetic Acids	No	Quarterly	21.9 (11.9-30.7)	µg/L	N/A	MCL 60 µg/L LRAA	By-product of drinking water chlorination
Haloacetic Acids HAA5	No	2019-2020	19.5 (13.9-34.0)	µg/L	N/A	Not Regulated	UCMR4[9] Disinfection by-products,
Haloacetic Acids HAA6	No	2019-2020	2.20 (1.15-34.0)	µg/L	N/A	Not Regulated	UCMR4 Disinfection by-products,
Haloacetic Acids HAA9	No	2019-2020	21.7 (15.4-37.1)	µg/L	N/A	Not Regulated	UCMR4 Disinfection by-products,
Total Organic Carbon	No	2-3 days per week	1.74 (1.41-2.08)	mg/L	N/A	TT	Naturally present in the environment
Chlorine Residual Entry Point	No	Six times daily	1.03[10] (0.77-1.45)	mg/L	N/A	4.0 (MRDL)	Added to drinking water to inhibit microbial growth.
Radionuclides:							
Alpha particles	No	Weekly	0.48 (ND-1.3	pCi/L	NA	15 pCi/L	Erosion of natural deposits.
Beta particles	No	Weekly	1.01 (ND-5.0	pCi/L	NA	50 pCi/L[8]	Erosion of natural deposits.

NOTES:

[1] Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Total coliforms were detected only in one sample in 2022, on July, 11th, 1 out of 125 routine samples, less than 1.0% of the total samples for that month. Additional samples were subsequently collected and total coliforms were not

detected in any of those repeat samples. Since total coliforms were detected in less than 5% of the samples collected during the month, the system did not have a MCL violation. It should be noted that *E. coli*, associated with human and animal fecal waste, was not detected in any of the samples collected.

[2] Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest turbidity measurement 0.17 NTU occurred on 6/2/2022 and 11/26/2022 with annual average is 0.06 NTU (min 0.02 - max0 0.17 NTU). State regulations require that 95% of the turbidity samples collected have measurements below 0.30 NTU.

[3] Distribution turbidity is a measure of the cloudiness of the water found in the distribution system. We monitor it as high turbidity can hinder the effectiveness of disinfectants and it is a good indicator of water quality. A distribution system turbidity violation occurs when the monthly average of the results of all distribution samples collected in any calendar month exceeds the MCL. Our single highest distribution turbidity measurement detected was 0.92 NTU on August, 4th 2022 with monthly average 0.42 NTU, which was far below the state maximum contaminant level.

[4] Water containing more than 20 mg/L of sodium should not be used for drinking water by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

[5] The level presented represents the 90th percentile of the 75 sites tested in 2021. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 75 samples were collected at your water system and the 90th percentile value was 40.04µg/L with the highest detected value of 108 µg /L. The action level (1300µg/L) for copper was not exceeded at any of the sites tested.

[6] The level presented 13.13µg /L represents the 90th percentile of the 75 samples collected. The action level (15µg/L) for lead was exceeded at seven (7) of the 75 sites tested. The highest level detected was 31.5 µg/L.

[7] Locational Running Annual Averages for total Trihalomethane and Haloaceteic acid.

[8] The State considers 50 pCi/L to be the level of concern for beta particles.

[9] Unregulated contaminants Monitoring Rule 4

[10] Compliance is based on a running arithmetic average, computed quarterly, of monthly averages of all samples collected by the system. If the running annual average exceeds the MRDL, the system is in violation and must notify the public.

[11] J. Notifies estimated concentration above the method detection limit but below the reporting limit.

[12] Unregulated Perfluoroalkyl Substances

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety.

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

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. MRDLG's do not reflect the benefits of the use of disinfectants for control of microbial contaminants.

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

Non-Detects (ND): Laboratory analysis indicates that the constituent is below detection level or not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per Liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million (ppm)).

Micrograms per Liter (µg/L): Corresponds to one part of liquid in one billion parts of liquid (parts per billion (ppb)).

Nanograms per liter (ng/l) corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picocuries per Liter (pCi/L): A measure of radioactivity in water.

Non-Detected Contaminants

According to State regulations, the Albany Water Board routinely monitors your drinking water for various contaminants.

Contaminants that were analyzed for but were found to be below detection limits are not included in this report, however, all required testing was completed according to Local, State, and Federal laws. {A list of

non-detected contaminants can be found on City of Albany, Department of Water and Water Supply Website.}

The contaminants that were detected in your drinking water are included in the Table of Detected Contaminants. Additionally, your water is tested from various locations in the distribution system for coliform bacteria four days per week along with free chlorine residuals and turbidities.

What does this information mean?

As you can see the table, our system had no violations in the reporting year 2022. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

The City of Albany Water Department has implemented a program to minimize lead levels in your drinking water. This program includes: 1) the adjustment of pH and alkalinity levels to minimize corrosion; 2) the replacement of lead service lines as distribution lines are replaced; and, 3) public education. The water department conducted lead and copper testing on select 75 residences in 2021. Most of the residences for 2021 testing were included from the 2018 list and remainder were picked after a survey to include houses from all wards in the City of Albany and were confirmed with Lead present at their meters. The 90th percentile of the samples collected was 13.13µg /L for lead. The action level (15µg/L) for lead was exceeded at seven (7) of the 75 sites tested. The highest level detected was 31.5 µg/L at only one location.

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. City of Albany is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standard Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested contact City of Albany Water Quality Laboratory Director at 518-635-4408. Information on lead drinking water, testing methods, and steps you can take to minimize exposure is available at
http://www.epa.gov/safewater/lead

According to EPA and NYS Regulations City of Albany being a large water system requires standard monitoring of lead and copper from 60 single family homes with LSLs twice a year starting July 2023. This effort will provide the Water Department with information to help us direct our lead service replacement program in the most effective manner.

Lead services were replaced as part of water main and sewer main replacement projects. ARPA funds were awarded to allow additional lead services to be replaced. In 2022, 478 full lead water services were replaced, and the Albany Water Board provided 215 grants totaling $322,000 to property owners replacing lead water services.

We continued to develop an inventory of lead water services. In 2023, we will publish on our website, an interactive map of all properties in the city noting the materials of the water service from the main to the shut off to the meter.
replacement.

Is our water system meeting other rules that govern operations?

We are required to continually monitor your drinking water daily, monthly, quarterly, annually or after multiple years for different contaminants and report to Local, State and Federal authorities. During 2022, our system was in compliance with applicable operating, monitoring and reporting requirements for drinking water regulations.

In 2020 NYS adopted new Maximum Contaminant levels (MCLs) for Perfluorooctanoic acid (PFOA), Perfluorooctane Sulfonate (PFOS) and 1,4-Dioxane. Initially we were required to monitor your drinking water for these contaminants on quarterly basis for one year. All the results of this initial monitoring were below detection limits for all three contaminants and are an indicator that your drinking water meets all health standards.

The USEPA Region 2 performed an audit of the City of Albany and the Albany Water Board in 2022 and as a result is required to provide you with the following information:

1. Information on detected unregulated contaminants, as required in 40 C.F.R. §141.153(d)(7). The table must contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring unregulated contaminants.
2. The lead informational statement, in accordance with 40 C.F.R. §141.154(d). Please note, Respondents may utilize NYSDOH LCR public informational template language to satisfy this requirement.
3. The definitions of MRDL and MRDLG, in accordance with 40 C.F.R. §141.153(c)(3), and 10 NYCRR §5-1.72(f)(2).

The City of Albany and the Albany Water Board were also required to report the following violations identified by EPA:

1. Failed to include the definitions of MRDL and MRDLG in, at least, their 2020 CCR, in violation of 40 C.F.R. §141.153(c)(3), and 10 NYCRR §5-1.72(f)(2).
2. Failed to include the average and range of the detected Brominated Haloacetic Acids in their 2020 CCR, in violation of 40 C.F.R. §141.153(d)(7). Respondent's PWS monitored for Brominated Haloacetic acids under the fourth Unregulated Contaminant Monitoring Rule ("UCMR4").
3. Failed to maintain individual filter effluent ("IFE") turbidity records for at least 3 years, in violation of 40 C.F.R. §§141.174 and 141.175(b), and 10 NYCRR §5-1.52 (Table 10A). IFE turbidity data collected prior to July 2021 was not available.
4. Failed to report to the State the daily lowest residual disinfectant concentration of the water entering the distribution system that is being continuously monitored, in violation of 40 C.F.R. §§141.74(c)(2) and 141.75(b)(2)(i), and 10 NYCRR §5-1.52 (Table 15).
5. Failed to provide a sampling plan for the monitoring and control of disinfection byproducts precursors (total organic carbon, TOC), in violation of 40 C.F.R. §141.132(f)

and 10 NYCRR §5-1.51(c).

6. Failed to report to NYSDOH the number, location, date, and results of each paired sample (source and treated water) collected and analyzed for TOC and its associated alkalinity, in violation of 40 C.F.R. §141.134(d) and 10 NYCRR §1.72(c)(6).
7. Included results for lead and copper tap samples that were collected outside the sampling period (June – September) in their 90th percentile calculation, in violation of 40 C.F.R. §141.86(d)(4)(iv) and 10 NYCRR §5-1.42(c)(3).
8. Is conducting reduced tap monitoring (sampling frequency and number of tap samples) for lead and copper. However, as the range/minimum of WQPs has not been designated, Respondents' system does not meet the criteria for reduced lead and copper tap monitoring. Respondents are, therefore, in violation of 40 C.F.R. §141.86(c)(4) and 10 NYCRR §5-1.42(c)(2).
9. Failed to provide written documentation supporting that, at least 3 samples collected during the 2021 lead and copper tap monitoring event were properly invalidated. The samples were not included in the 90th percentile calculation, in violation of 40 C.F.R. §141.86(f) and 10 NYCRR §5-1.42(e).
10. Failed to include in the 2021 lead consumer notices the following information: the MCLG for lead and the definitions for action level and MCLG, in violation of 40 C.F.R. §141.85(d). In addition, Respondents failed to provide the notice of the individual lead tap results to the persons served by the water system at the specific sampling site from which the sample was taken within 30 days after the system learned of the tap monitoring results, in violation of 40 C.F.R. §141.85(d).
11. Failed to include the required language for the lead informational statement in, at least, the 2020 CCR, in violation of 40 C.F.R. §141.154(d)(1).

Because of the EPA audit, the City of Albany and the Albany Water Board will be performing standard six-month lead and copper monitoring starting in July 2023. Previously the system was on a reduced monitoring program. During the monitoring periods July 1 – December 31, 2023 and January 1 –June 30, 2024 we will be conducting monitoring to determine the optimum corrosion control treatment, so that the State can designate the minimum/range of WQPs (Water Quality Parameters).

Information on Unregulated Contaminants

The Safe Drinking Water Act (SDWA) establishes periodic monitoring (almost every 5 years) through the Unregulated Contaminants Monitoring Rule (*UCMR*) to assess occurrence of select constituents from the Contaminant Candidate list for potential regulatory consideration. UCMR4 the 4th cycle of UCMR monitoring, in 2019-2020 we were required to collect and analyze drinking water samples for 30 unregulated contaminants. Most of the contaminants were below detection level except some of the new Brominated Haloacetic acids which were monitored for 4 quarters from 8 different distribution locations the averages with Minimum and Maximum values are listed in the detected contaminants table. If you are interested and want to learn more you may contact Laboratory Director Dr. Rifat Hussain at 518-635-4408.

In 2022 our system also performed additional monitoring (outside of EPA's UCMR program) for unregulated Perfluoroalkyl and Polyfluoroalkyl Substances requested by the State. Unregulated perfluoroalkyl substances that were detected as part of PFOA/PFAS sampling are reported in the table below.

Unregulated Perfluoroalkyl Substances

Contaminants	Violation Yes/No	Date of Sample	Level Detected (Avg.) (Range)	Unit Measurement	MCLG/ MRDLG	Regulatory Limit (MCL, MRDL,TT or AL)	Likely Source of Contamination
Perfluorohexanoic acid	No	12/08/2022	0.46 J[1]	ng/L	NA	Not Regulated	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanoic acid	No	12/08/2022	0.68 J	ng/L	NA	Not Regulated	
Perfluoropentanoic acid	No	12/08/2022	0.32 J	ng/L	NA	Not Regulated	
Perfluorooctanoic acid	No	12/08/2022	0.68 J	ng/L	NA	Not Regulated	

[1] J. Notifies estimated concentration above the method detection limit but below the reporting limit.

Starting September 2023, the Albany water system will start monitoring a new set of unregulated contaminants UCMR5 for one year to determine if any PFAS are present and at what level in your water.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded State and Federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life.
- Saving water lessens the strain on the water system during a dry spell or drought helping to avoid severe water use restrictions so that essential firefighting needs are met.
- You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:
- Run only full loads in dishwashers and washing machines.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you may save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons per year
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, it moved, you have a leak.

2022 System Improvements:

Supply Reservoirs

The new Alcove Sodium Permanganate Facility was completed and placed into operation. Sodium permanganate is added for taste and odor, to oxidize iron and manganese and to reduced TOC (Total Organic Carbon). Previously, potassium permanganate was added at the Feura Bush Filtration Plant. Feeding permanganate at the source provides a greater benefit to water quality.
Construction began on a new office building and garage buildings for watershed staff. These buildings will be completed in 2023.
Design work proceeded for dam safety improvements at the Basic Creek Reservoir and Rensselaer Lake.

Supply Conduit

In 2022 a specialty contractor inspected, exercised, and reported on the conditions of major valves in vaults. This will lead to capital improvements in 2023.

Feura Bush Filtration Plant

A major upgrade of Feura Bush Electrical Systems was completed. Design was completed for replacement of filter valves and actuators, bids were taken, and a contract awarded. This work will be proceeding in 2023.
Projects now under design include rehabilitation of the Aeration Building, rehabilitation of the Mixing Basins, replacement of the Hydrated Lime feed system, and rehabilitation of the Wash Water Tanks.

Distribution System

Water mains were replaced on Crescent Drive, Lancaster Street, South Pearl Street, and Commerce Avenue. Lead services were replaced as part of water main and sewer main replacement projects. ARPA funds were awarded to allow additional lead services to be replaced.

Loudonville Reservoir

New UV disinfection equipment was ordered, to replace equipment installed in 2003. This equipment will be delivered and installed in 2023.

Water Pumping Stations and Tanks

New equipment was purchased to replace the pumps and piping at the Upper Service Pump Station. They will be installed in 2023. Repairs were made to the riser of the Upper Service Tank.

35 Erie Boulevard

Major improvements have been completed at 35 Erie Boulevard. The old office buildings and sheds were demolished and new buildings and sheds have been constructed. This location is where we store pipe, backfill material, blacktop, precast materials, and castings.

Grants and Financing

The Department has made applications for funding to New York State EFC (Environmental Facilities Corporation), and has been awarded grants for upcoming projects amounting to 75% of project costs with zero percent interest.

Applications have been made for grants and financing for Lead Service Line Replacement.

Closing

Thank you for allowing us to continue to provide you and your family with quality drinking water with no water quality violation in year 2022. We continually undertaking measures to maintain and improve our water quality through our treatment and monitoring processes. We ask that all of our customers help us protect our water sources, which are the heart of our community. Please call our office at 518-434-5300 if you have questions concerning your drinking water.

Exhibit B

CHICAGO

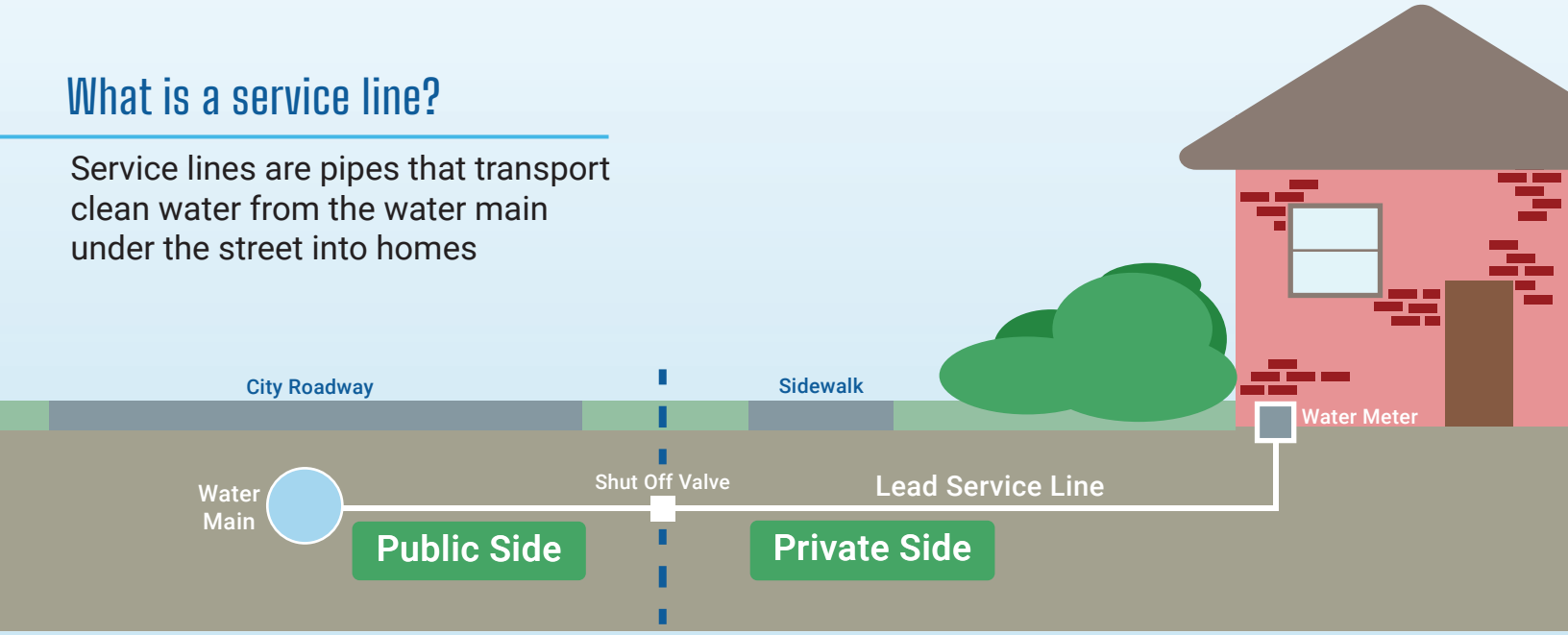
City Of Chicago 2023

WATER QUALITY REPORT

Chicago is replacing lead service lines

What is a service line?

Service lines are pipes that transport clean water from the water main under the street into homes



Is my service line lead?

If you live in a house or two-flat built before 1986, there is a high likelihood that your water service line is lead

To look up your home on our citywide Service Line Inventory visit: **SLI.ChicagoWaterQuality.org**

What is the City doing to replace lead service lines?

The City is offering several replacement programs that replace both the public and private side of the lines- for Free! More information inside...

DWM
Department Of
Water Management

Commissioner Randy Conner

Mayor Brandon Johnson's
"A Better, Stronger, Safer Chicago"

Lead Service Line Replacement Programs (LSLR)

Equity LSLR

Program:

FREE LSLR and new water meters for income-qualified residents

Requirements:

- Live in a house / two-flat which you own
- Have a household income below 80% of the area median income (see table to the right)

To Apply:

Submit documentation of household income and home ownership to qualify at: **chicagowaterquality.org/LSLREquity**

Household size (People)	80% of Area Median Income
1	$62,800
2	$71,800
3	$80,750
4	$89,700
5	$96,900
6	$104,100
7	$111,250
8	$118,450

Leaks and Breaks

Program:

FREE LSLR and new water meter for properties with leaking or broken lead services

Requirements:

You have a leak or break on the lead water service line to your property. Any building type is eligible

To Apply:

- Call 311 to report a break or leak on your service line
- A DWM investigator will identify if the leak or break is on the public or private side of the service line
- DWM will complete the repair on the public side and the property own is responsible for repairs on the private side
- A DWM or a contractor will discuss and schedule the LSLR with the property owner

Block-Long LSLR

Program:

FREE LSLR and new water meters for properties affected by water main or sewer main replacement work

Requirements:

DWM will perform block-level LSLR for all properties located along water main and sewer main construction work. This includes owner occupied, rental, and commercial properties.

To Apply:

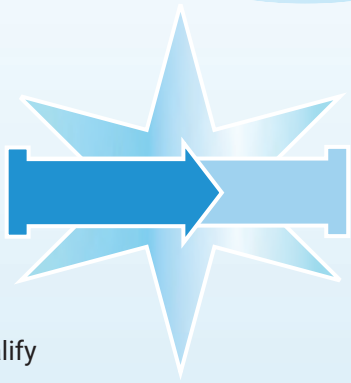
DWM will notify residents of their eligibility and next steps to complete the full LSLR

Questions?

Visit: Leadsafechicago.org
Email: Lead.safe@cityofchicago.org
Call: 312-742-2406

Lead Service Line Replacement Programs (LSLR)

Daycare LSLR



Program:

FREE LSLR and new water meters for licensed daycares.

Requirements:

- A state-licensed daycare, both centers and in-home. If the daycare is renting, property owner consent is required.

To Apply:

Daycares are on a prioritized list, DWM will proactively contact daycares when they qualify

Homeowner-Initiated LSLR

Program:

Waives the standard permit fees of up to **$5000** for any property owner who decides to replace their full lead service line. This is the one of the City's programs that is not free to residents.

Requirements:

- All properties with LSLs including rentals, owner-occupied, and commercial properties are eligible to participate
- Property owner must be willing to pay for the full LSLR

To Apply:

- Verify service line, material using: **ChicagoWaterQuality.org/LSLIdentification**
- Hire a licensed plumbing contractor to replace the lead service line. Visit LeadSafeChicago.org for a list of plumbing contractors licensed in Chicago, steps for lead service line replacement, and the permit fees that will qualify for fee waivers.
- Your contractor will notify Department of Buildings that this is a LSLR project eligible for permit fee waivers, and will apply for the permit by going to **https://chicagowaterquality.org/LSLRpermit**

DWM is switching to stronger lead protection!

DWM adds corrosion control in the distribution system to help prevent lead and other contaminants from leaching into the clean drinking water. While we know that the blended phosphate formula we have been using is effective, our research has determined that orthophosphate is significantly better at reducing lead levels at the homeowner's tap.

Orthophosphate is a colorless, tasteless, and odorless food-grade additive and is approved by the U.S. Environmental Protection Agency and the U.S. Food and Drug Administration. It is used by approximately 50% of the water systems across the United States for lead control. The Illinois Environmental Protection Agency agreed with our research and has approved our corrosion control transition to orthophosphate.

New chemical feed facilities are being constructed at both of our plants (Jardine and Sawyer Water Purification Facilities) to add orthophosphate to the water distribution system. DWM plans to begin to switch from blended phosphate to orthophosphate in the Fall of 2024. During this transition period, DWM will continue to monitor water quality in the distribution system.

Questions?

Visit: Leadsafechicago.org
Email: Lead.safe@cityofchicago.org
Call: 312-742-2406

Educational Statements Regarding Commonly Found Drinking Water Contaminants

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 healthcare providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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.

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 at least 5 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 Drink Water Hotline or at **www.epa.gov/safewater/lead**

Possible contaminants consist of:

- **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 may 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 may also come from gas stations, urban storm water runoff and septic systems.
- **Radioactive contaminants**, which may be naturally occurring or be the result of oil and gas production and mining activities.

2023 Water Quality Data: Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range Of Detections	Violation	Date of Sample
MICROBIAL CONTAMINANTS						
TOTAL COLIFORM BACTERIA (% pos/mo)	0	5%	0.4%	N/A	N	
Naturally present in the environment						
FECAL COLIFORM AND E. COLI (# pos/mo)	0	0	0	N/A	N	
Human and animal fecal waste			(Lowest Monthly %)			
TURBIDITY (NTU/Lowest Monthly % ≤ 0.3 NTU)	N/A	TT	100%	100%-100%	N	
Soil runoff			(Limit: 95% ≤ 0.3 NTU)			
TURBIDITY (NTU/Highest Single Measurement)	N/A	TT	0.25	N/A	N	
Soil runoff			(Limit: 1 NTU max)			
INORGANIC CONTAMINANTS						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0195	0.0192 -0.0195	N	
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives	1.3	AL = 1.3	0.079 (90th percentile)	0 sites exceeding AL	N	6/1/23-9/30/23
LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits	0	AL= 15	7.2 (90th percentile)	0 sites exceeding AL	N	6/1/23-9/30/23
NITRATE (AS NITROGEN) (ppm)	10	10	0.33	0.29 – 0.33	N	
Runoff from fertilizer use; Leaching from septic tanks, sewage: Erosion of natural deposits						
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm)	10	10	0.33	0.29 – 0.33	N	
DISINFECTANTS \ DISINFECTION BY-PRODUCTS						
TTHM [TOTAL TRIHALOMETHANES] (ppb) *	N/A	80	32.6	15.9 – 51.0	N	
By-product of drinking water disinfection						
HAA5 [HALOACETIC ACIDS] (ppb) *	N/A	60	16.4	6.0 – 26.9	N	
By-product of drinking water disinfection						
CHLORINE (as Cl_2) (ppm) Drinking water disinfectant	4.0	4.0	1	0 – 1	N	
TOC [TOTAL ORGANIC CARBON]						
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.						
UNREGULATED CONTAMINANTS						
SULFATE (ppm)	N/A	N/A	27.8	25.0 – 27.8		
Erosion of naturally occurring deposits						
SODIUM (ppm)	N/A	N/A	8.71	8.43 – 8.71		
Erosion of naturally occurring deposits; Used as water softener						
STATE REGULATED CONTAMINANTS						
FLUORIDE (ppm)	4	4	0.74	0.66 – 0.74	N	
Water additive which promotes strong teeth						
RADIOACTIVE CONTAMINANTS						
COMBINED RADIUM 226/228 (pCi/L) ** Decay of natural and man-made deposits	0	5	0.95	0.83 – 0.95	N	2/04/2020
GROSS ALPHA excluding Radon & Uranium (pCi/L) **	0	15	3.1	2.8 – 3.1	N	2/04/2020
Decay of natural and man-made deposits						

Definition of Terms

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 allow for a margin of safety.

Maximum Contaminant Level (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 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2023, except where a specific date is indicated.

Range of Detections: This column represents a range of individual sample results, from lowest to highest, that were collected during the Consumer Confidence Report (CCR) calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during Consumer Confidence Report (CCR) calendar year.

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

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

ND: Not detectable at testing limits; **N/A:** Not applicable

Locational Running Annual Average (LRAA): The average of 4 consecutive quarterly results at each monitored sample location. The LRAA should not exceed 80 µg/L for TTHM and 60 µg/L for HAAS.

Water Quality Data Table Footnotes

TURBIDITY

Turbidity is a measure 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.

UNREGULATED CONTAMINANTS

A 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 contaminants in drinking water, and whether future regulation is warranted.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health has recommended an optimal fluoride level of 0.7 mg/L, with a range of 0.6 to 0.8 mg/L.

SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns 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.

Unit of Measurement

- ppm - Parts per million, or milligrams per liter (mg/L)
- ppb - Parts per billion, or micrograms per liter (µg/L)
- NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
- % ≤0.3 NTU - Percent of samples less than or equal to 0.3 NTU
- pCi/L - Picocuries per liter, used to measure radioactivity.
- mrem: millirems per year, a measure of radiation absorbed by the body

Note: TTHM, HAAS, and Chlorine are for the Chicago Distribution System.

* Data expressed as LRAA - Locational Running Annual Average (See Definition of Terms for Details)

** The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled during the CCR calendar year. If any of these contaminants were detected the last time they were sampled, they are included in the table along with the date that the detection occurred.

Radiochemical contaminant monitoring is conducted every 6 years.

Source Water Assessment Summary

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 SWAP for our supply. Further information on our community water supply's SWAP is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

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 areas of the City and suburbs, while the Sawyer Water Purification Plant serves the southern areas 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 third largest by area.

SUSCEPTIBILITY TO CONTAMINATION

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 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 the City of Chicago, Department of Water Management at 312-744-6635.

2023 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. No Cryptosporidium or Giardia was detected in source water samples collected in 2023. 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 water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced.

In 2023, DWM has also continued monitoring for hexavalent chromium, also known as 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 questions or concerns to DWM's Water Quality Division at 312-744-8190. Data reports on the monitoring program for chromium-6, PFAS/PFOS, and other emerging contaminants are posted on the City's website which can be accessed at the following address below:

www.chicago.gov/city/en/depts/water/supp_info/water_quality_resultsandreports.html

Cross-Connection Control

The Chicago Department of Water Management is required by the Illinois EPA to routinely survey all water services connected to our public drinking water supply to help us identify and correct "cross-connections", which are unprotected or improper connections to the public drinking water system that may cause contamination or pollution to enter the system. Please fill out the survey online at: www.chicagoccr.org

Free Water Lead Testing For Chicago Residents

Request Water Lead Testing

- Call 311
- Visit Chicagowaterquality.org
- Scan to connect with us:

This document contains important health information for Chicago residents.

Please share this packet with anyone who uses Chicago water systems, especially those are high risk or may not have direct access to this document (e.g. nursing home residents, pregnant people, schools, etc.)
You may post this information in public places, distribute copies by mail or by hand.

This message is being sent to you by the City of Chicago, Department of Water Management.
Water System ID #IL0316000

City Resources:

Visit Our Website
www.chicago.gov/water
E-Mail DWM
WaterManagement@cityofchicago.org
Water Bill Questions
Call (312) 744-4426
Flooded Basement or Street
Call 311
Water Quality Information
Call (312) 744-8190

EPA Resources:

EPA's Information Line
Call (312) 353-2000
EPA's Safe Drinking Water Hotline
Call (800) 426-4791
Illinois EPA Regoinal Office
Call (847) 608-3131

City of Chicago
Department of Water Management
Bureau of Water Supply
1000 East Ohio Street, Chicago IL 60611
Attn: Commissioner Randy Conner

DWM
Department Of Water Management

Commissioner Randy Conner
Mayor Brandon Johnson's
"A Better, Stronger, Safer Chicago"

CHICAGO
MAYOR LORI E. LIGHTFOOT

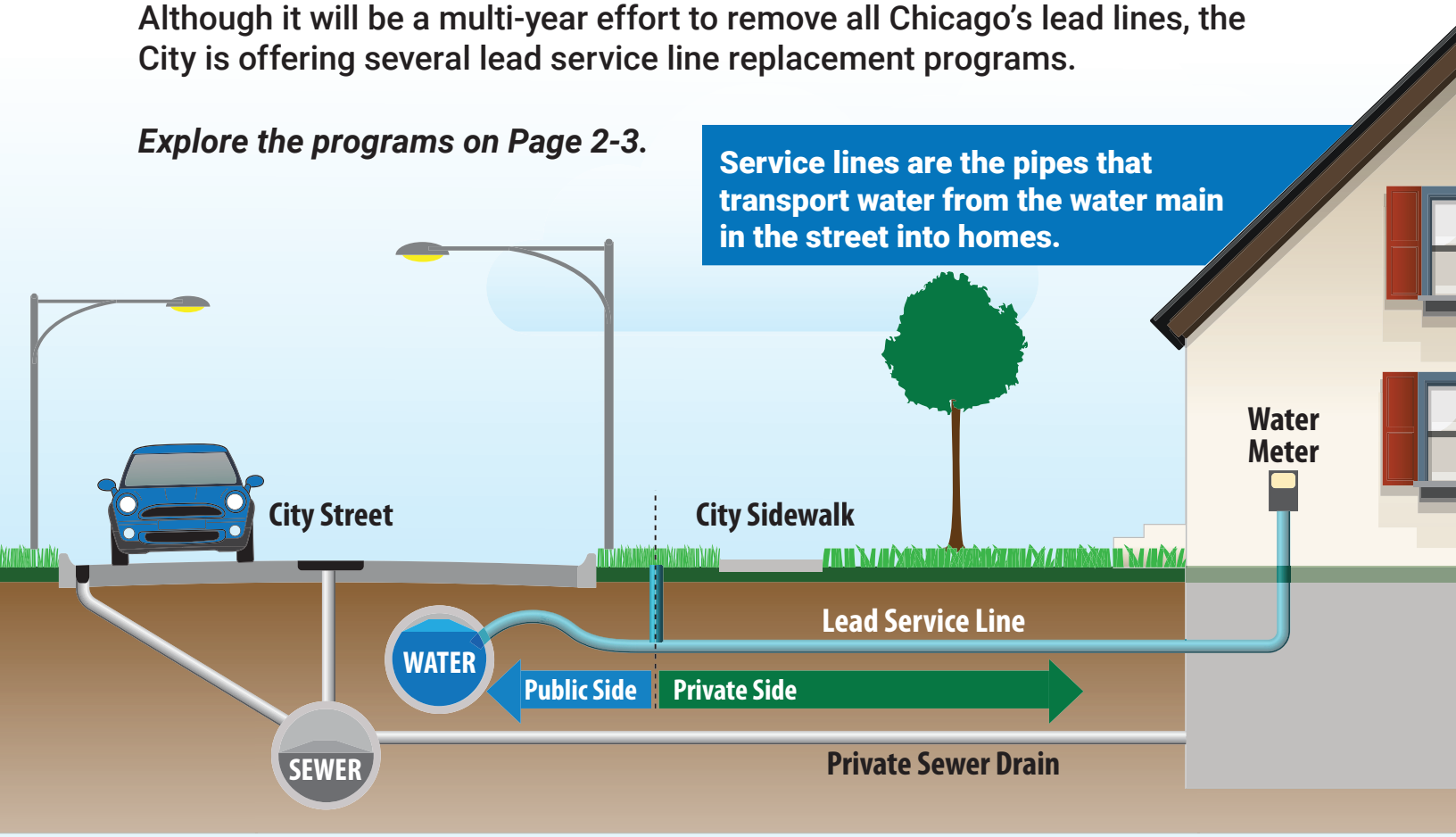
CITY OF CHICAGO ▪ 2022 WATER QUALITY REPORT

Learn about Chicago's Lead Service Line Replacement Programs

If you live in a house or two-flat built before 1986, there is a high likelihood that your water service line is made of lead unless it was replaced during renovation or an addition.

Although it will be a multi-year effort to remove all Chicago's lead lines, the City is offering several lead service line replacement programs.

Explore the programs on Page 2-3.



DWM
Department of Water Management

Andrea Holthouse Cheng, Ph.D., Commissioner
Department of Water Management

LEAD SAFE CHICAGO

www.LeadSafeChicago.org
312.742.2406

DWM Department of Water Management

Chicago Lead Service Line Replacement (LSLR)

Equity LSLR

This program provides free LSLR and new water meters for income-qualified homeowners.

Requirements

- Live in a single family or two-flat home that you own.
- Priority will be given to residents whose water tests above 15 ppb lead.
- Have a household income below 80% of the area median income (see table below for 2022 limits).

Household Size (people)	80% Area Median Income (AMI)
1	$58,350
2	$66,700
3	$75,050
4	$83,350
5	$90,050
6	$96,700

Income Limits (April 2022) for the Equity Program

To Apply

- Submit application documenting household income and home ownership to see if you qualify at chicagowaterquality.org/LSLREquity
- Get your water tested for free by calling 311 or signing up at chicagowaterquality.org.

Questions?

- Email: lead.safe@cityofchicago.org
- Phone: 312-742-2406

Leaks and Breaks LSLR

This program provides free LSLR and new water meters for properties with leaking or broken lead services.

Requirements

- You have a leak or break on the lead water service line to your property.
- All properties with a lead service line including renters, owner-occupied and commercial properties are eligible to participate.

To Apply

- Call 311 to report a leak or a break on your water service line.
- A DWM investigator will identify whether the leak or break is on private or public property. DWM will repair the leak or break on the public side and the property owner repairs any leaks or breaks on the private side.
- DWM or contractor will discuss and schedule LSLR with the owner.

Questions?

- 311 to report a leak or break
- Email: LSLR@cityofchicago.org
- Phone: 312-747-7530

Daycares LSLR

This program provides free LSLR and new water meters for licensed daycares.

Requirements

- A state licensed daycare, both center and in-home. If the daycare is renting, property owner consent is required.

To Apply

- Daycare is on a prioritized list. The Department of Water will proactively contact daycares when they qualify.

Questions?

- Email: daycares@cityofchicago.org
- Phone: 312-744-6635

LEAD SAFE CHICAGO

www.LeadSafeChicago.org
312.742.2406

DWM Department of Water Management

Programs and Eligibility

Block-Level LSLR

This program provides free LSLR and new water meters for properties affected by water main or sewer main replacement work.

Requirements

- DWM will perform block-level LSLR for all properties located along water main and sewer main construction work. This includes owner-occupied, rental and commercial properties.

To Apply

- The City will notify residents of their eligibility and next steps to complete the full LSLR.

Questions?

- Phone: 312-744-6635

Homeowner-Initiated LSLR

This program waives the standard permit fees up to $5,000 for any property owner who decides to replace their full lead service line.

Requirements

- All properties with LSLs including renters, owner-occupied, and commercial properties are eligible to participate.
- Property owner must be willing to pay for the full LSLR.

To Apply

- Verify service line material using chicagowaterquality.org/LSLIdentification.
- Hire a licensed plumbing contractor to replace the lead service line. Visit leadsafechicago.org for a list of plumbing contractors licensed in Chicago, steps for lead service line replacement and the permit fees that will qualify for fee waivers.
- Your contractor will notify Department of Buildings that this is a LSLR project eligible for permit fee waivers and will apply for a permit by going to chicagowaterquality.org/LSLRPermit.

Questions?

- Email: lead.safe@cityofchicago.org
- Phone: 312-742-2406

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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 healthcare providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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.

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 at least 5 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 Drink Water Hotline or at http://www.epa.gov/safewater/lead.

Possible contaminants consist of:

- **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 may 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 may also come from gas stations, urban storm water runoff and septic systems.
- **Radioactive contaminants**, which may be naturally occurring or be the result of oil and gas production and mining activities.

2022 Water Quality Data: Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range Of Detections	Violation	Date of Sample
MICROBIAL CONTAMINANTS						
TOTAL COLIFORM BACTERIA (% pos/mo)	0	5%	0.4%	N/A	N	
Naturally present in the environment						
FECAL COLIFORM AND E. COLI (# pos/mo)	0	0	0	N/A	N	
Human and animal fecal waste			(Lowest Monthly %)			
TURBIDITY (NTU/Lowest Monthly % ≤ 0.3 NTU)	N/A	TT	100%	100%-100%	N	
Soil runoff			(Limit: 95% ≤ 0.3 NTU)			
TURBIDITY (NTU/Highest Single Measurement)	N/A	TT	0.30	N/A	N	
Soil runoff			(Limit: 1 NTU max)			
INORGANIC CONTAMINANTS						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0201	0.0193 - 0.0201	N	
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives	1.3	AL = 1.3	0.065 (90^{th} percentile)	0 sites exceeding AL	N	6/1/22-9/30/22
LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits	0	AL= 15	6.8 (90^{th} percentile)	0 sites exceeding AL	N	6/1/22-9/30/22
NITRATE (AS NITROGEN) (ppm)	10	10	0.30	0.30 – 0.30	N	
Runoff from fertilizer use; Leaching from septic tanks, sewage: Erosion of natural deposits						
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm)	10	10	0.30	0.30 – 0.30	N	
DISINFECTANTS \ DISINFECTION BY-PRODUCTS						
TTHM [TOTAL TRIHALOMETHANES] (ppb) *	N/A	80	25.1	12.8 – 37.6	N	
By-product of drinking water disinfection						
HAA5 [HALOACETIC ACIDS] (ppb) *	N/A	60	11.9	5.8 – 15.2	N	
By-product of drinking water disinfection						
CHLORINE (as Cl_2) (ppm) Drinking water disinfectant	4.0	4.0	1	1 – 1.3	N	
TOC [TOTAL ORGANIC CARBON]						
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.						
UNREGULATED CONTAMINANTS						
SULFATE (ppm)	N/A	N/A	27.1	25.8 – 27.1		
Erosion of naturally occurring deposits						
SODIUM (ppm)	N/A	N/A	9.08	8.56 – 9.08		
Erosion of naturally occurring deposits; Used as water softener						
STATE REGULATED CONTAMINANTS						
FLUORIDE (ppm)	4	4	0.76	0.63 – 0.76	N	
Water additive which promotes strong teeth						
RADIOACTIVE CONTAMINANTS						
COMBINED RADIUM 226/228 (pCi/L) ** Decay of natural and man-made deposits	0	5	0.95	0.83 – 0.95	N	2/04/2020
GROSS ALPHA excluding Radon & Uranium (pCi/L) ** Decay of natural and man-made deposits	0	15	3.1	2.8 – 3.1	N	2/04/2020

Definition Of Terms

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 allow for a margin of safety.

Maximum Contaminant Level (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 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2022, except where a specific date is indicated.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the Consumer Confidence Report (CCR) calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report (CCR) calendar year.

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

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

ND: Not detectable at testing limits; **N/A**: Not applicable

Locational Running Annual Average (LRAA): The average of 4 consecutive quarterly results at each monitored sample location. The LRAA should not exceed 80 µg/L for TTHM and 60 µg/L for HAA5.

Water Quality Data Table Footnotes

TURBIDITY

Turbidity is a measure 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.

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 contaminants in drinking water, and whether future regulation is warranted.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health has recommended an optimal fluoride level of 0.7 mg/L, with a range of 0.6 mg/L to 0.8 mg/L.

SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns 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.

Unit of Measurement

- **ppm** - Parts per million, or milligrams per liter (mg/L)
- **ppb** - Parts per billion, or micrograms per liter (µg/L)
- **NTU** - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
- **% ≤ 0.3 NTU** - Percent of samples less than or equal to 0.3 NTU
- **pCi/L** – Picocuries per liter, used to measure radioactivity.
- **mrem**: millirems per year, a measure of radiation absorbed by the body

Note: TTHM, HAA5, and Chlorine are for the Chicago Distribution System.

*Data expressed as LRAA – Locational Running Annual Average (See Definition of Terms for Details)
**The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled during the CCR calendar year. If any of these contaminants were detected the last time they were sampled, they are included in the table along with the date that the detection occurred. Radiochemical contaminant monitoring is conducted every 6 years.

CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT
SOURCE WATER ASSESSMENT SUMMARY FOR THE 2022 CONSUMER CONFIDENCE REPORT (CCR)

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. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

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 areas of the City and suburbs, while the Sawyer Water Purification Plant serves the southern areas 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 third largest by area.

SUSCEPTIBILITY TO CONTAMINATION

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 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 stormwater 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 the City of Chicago, Department of Water Management at 312-744-6635.

2022 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. No Cryptosporidium or Giardia was detected in source water samples collected in 2022. 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 water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced.

In 2022, CDWM has also continued monitoring for hexavalent chromium, also known as 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 questions or concerns to DWM's Water Quality Division at 312-744-8190. Data reports on the monitoring program for chromium-6, PFAS/PFOS, and other emerging contaminants are posted on the City's website which can be accessed at the following address below:

https://www.chicago.gov/city/en/depts/water/supp_info/water_quality_resultsandreports.html

Cross-Connection Control Survey

The Chicago Department of Water Management is required by the Illinois EPA to routinely survey all water services connected to our public drinking water supply to help us identify and correct "cross-connections", which are unprotected or improper connections to the public drinking water system that may cause contamination or pollution to enter the system. Please fill out the survey online at:

www.chicagoccr.org

CHICAGO

FREE WATER TESTING

Get a FREE water test by the Chicago Department of Water Management (DWM)

Get your water tested for lead for FREE!

Sign up by calling 311 OR visit
www.ChicagoWaterQuality.org

Visit out website for more information:
www.chicago.gov/water

Scan this QR code to visit Chicago WaterQuality.org

DWM
Department of Water Management

E-MAIL: watermanagement@cityofchicago.org

DEPARTMENT OF FINANCE WATER BILL QUESTIONS: (312) 744-4426

WATER IN THE STREET OR BASEMENT: Call **311**

WATER QUALITY QUESTIONS: (312) 744-8190

IEPA'S REGIONAL OFFICES (ILLINOIS): (847) 608-3131

EPA'S SAFE DRINKING WATER HOTLINE: (800) 426-4791

EPA'S GENERAL INFORMATION LINE: (312) 353-2000

For Questions, Please Contact

City of Chicago Department of Water Management
Bureau of Water Supply
1000 East Ohio Street • Chicago, IL 60611
Attn: Andrea Holthouse Cheng, Ph.D.
http://dataservices.epa.illinois.gov/swap/factsheet.aspx

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by: The City of Chicago, Department of Water Management Water System ID# IL0316000

Exhibit C

Annual Water Quality Report

Water testing performed in 2023

Oak Park

The Village of Oak Park
Village Hall
123 Madison Street
Oak Park, Illinois 60302
www.oak-park.us

708.358.5700
publicworks@oak-park.us

PWS ID#: 0312250

Spanish–Este informe contiene información muy importante sobre el agua que usted bebe. Tradúscalo ó hable con alguien que lo entienda bien. (This report contains very important information regarding your drinking water. Translate it, or speak with someone who understands it.)

Introduction

Each year, the Village of Oak Park provides residents with a report on the quality of their drinking water. This report is intended to provide important information about your drinking water and the efforts made by the Village to provide safe drinking water. The report includes drinking water facts and information on violations and contaminants detected in the drinking water supply. This year's report is for water tested from January 1, 2023 through December 31, 2023.

The Village is dedicated to supplying drinking water that meets or exceeds all state and federal standards. As new challenges to drinking water safety emerge, the Village remains vigilant in source water protection, conservation, and community education, while continuing to serve the needs of all water users.

Informed customers are our best allies. Questions and comments are welcome. For more information regarding the content of this report or to request a printed copy, please contact Mike Bills, Water & Sewer Superintendent, at 708.358.5700 or email **publicworks@oak-park.us**.

2023 Violation Summary

The Village of Oak Park is proud to report that no violations were received in the 2023 sampling year.

Community Participation

Regular Village Board meetings are held at 7 p.m. on the first and third Tuesday of each month in the Council Chambers of Village Hall, 123 Madison St. Meetings also are streamed live and archived at **www.oak-park.us/boardtv**. Residents are invited to follow us at **twitter.com/vopnews** and **facebook.com/vopnews** and to sign up for news via email at **www.oak-park.us/enews**.

Source Water Location

Lake Michigan is the sole source of drinking water for the Village of Oak Park. Water arrives pretreated via pipelines from the City of Chicago's Jardine Water Purification Plant. Water from the City is stored by the Village in four underground reservoirs that can hold a combined 12.5 million gallons. The water in the reservoirs remains in constant motion to maintain freshness – only a small amount of chlorine is added before pumped into the Village's distribution system of 112 miles of water mains. To ensure purity, water samples are routinely gathered throughout the water system, from the source to your home. A state-certified lab tests the samples using equipment that can measure substances down to one part in a billion, or one ounce in 7,350,000 gallons of water.

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 third largest by area. Oak Park began receiving drinking water from Lake Michigan via the City of Chicago in 1912. About 400,000 gallons of water were pumped each day for the Village's 20,000 residents. Today, an average of five million gallons per day is pumped to Oak Park's 54,000 residents. The rate for water in 1912 was about seven cents per 1,000 gallons of water. Today, Oak Park's water rate is $10.51 per 1,000 gallons. Oak Park must continually adjust water rates in response to rate changes imposed by the City of Chicago and to maintain the Village's water distribution system.

Important Health Information

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. U.S. EPA/Centers for Disease Control (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 1.800.426.4791.

Substances that Might be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 U.S. EPA's Safe Drinking Water Hotline. The sources of drinking water (both bottled and tap water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Substances 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/or wildlife;
- **Inorganic contaminants,** such as salts and metals, which can be naturally occurring or may 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 use;
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems;
- **Radioactive contaminants,** which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 1.800.426.4791.

Lead and Drinking Water

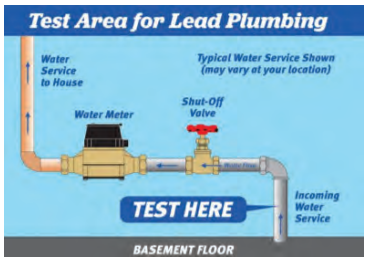
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with lead service lines and home plumbing. The Village of Oak Park is responsible for providing high quality drinking water, but cannot control the variety of materials used in interior plumbing components. When water has been sitting for several hours, the potential for lead exposure can be minimized by running the tap for three to five 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 that you can take to minimize exposure is available from the U.S. EPA Safe Drinking Water Hotline or at **www.epa.gov/safewater/lead**. For more information, please visit the Village's Frequently Asked Questions webpage regarding Oak Park's drinking water at **www.oak-park.us/lead-water-faq**.

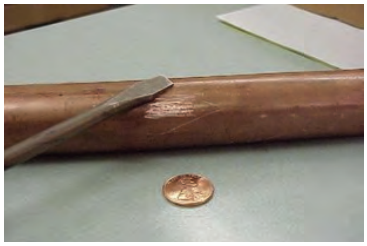
How to Identify a Lead Service Line

Pursuant to the Illinois Lead Service Line Replacement and Notification Act, all community water supplies must develop and maintain a comprehensive water service line material inventory. A water service line is the pipe that connects the water main to the plumbing in a home or building; the illustration below is an example of how your home's water service line connects to the Village's water main.

A scratch test is a simple, quick method for identifying the service line material entering a home or building.

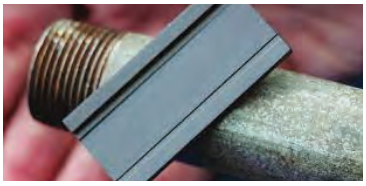
Lead service lines were installed primarily during the late 1800s through the 1940s. Lead is a dull, soft, non-magnetic material that turns a shiny silver color when scratched.



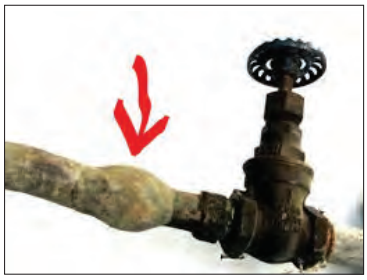


When performing a scratch test, if it turns shiny silver, like the image above, it is likely lead. If the scratched area turns yellow-orange, it is likely copper.

Galvanized iron pipe can also be silver in color; to distinguish between lead and galvanized iron, place a magnet on the pipe. If the magnet sticks to the pipe, it's likely iron and not lead.



Always use care when performing a scratch test and avoid using sharp objects. Never perform the test directly on a wiped joint. A wiped joint is a bulge-shaped, type of soldered joint commonly used to join lead pipes. A wiped joint is typically a good indication that the service line material is lead. Below are examples of wiped joints on lead service lines.



The public side of water services, being the portion between the Village's water main and the homeowner's water shut-off valve, will be upgraded from lead or galvanized iron pipe to copper whenever the water main is replaced or if the homeowner elects to replace the private side of their water service.

Residents are encouraged to use the Village's new web-based Water Service Dashboard to identify their property's water service material. The Water Service Dashboard can be accessed through the Village's website at **www.oak-park.us/waterquality**, under the "Useful Links" column. The Water Service Dashboard is based on available records and is updated as more information becomes available. If no records are available for a property, its water service material is categorized as "unknown". Property owners with an "unknown" water service material will receive a survey in the mail requesting

information on their service line material. If you have a question about the Water Service Dashboard or your water service, please feel free to contact the Public Works Department at 708.358.5700 or **publicworks@oak-park.us**.

2023 Voluntary Monitoring and Cryptosporidium

The City of Chicago monitors for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. No Cryptosporidium or Giardia was detected in source water samples collected in 2023. 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 water, the possibility of such organisms entering the drinking water system is greatly reduced.

In 2023, the City of Chicago also continued monitoring for hexavalent chromium, also known as Chromium-6. The U.S. EPA has not yet established a standard for Chromium-6, a contaminant of concern which has both natural and industrial sources. Chromium-6 sampling data is posted on the City of Chicago's website at: **www.chicago.gov/city/en/depts/water/supp_info/water_quality_resultsandreports.html**.

Any questions or concerns regarding this monitoring program should be addressed to the Chicago Department of Water Management at 312.744.8190.

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. To view a summary version of the completed Source Water Assessment, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water protection Efforts, you may access the Illinois EPA's website at **www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl**.

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 other than 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. Chicago has taken extraordinary steps to ensure a safe source of drinking water in the area, from the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's water ways and the City's Lakefront Zoning Ordinance. The City now looks to the Department of Water Management and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) to ensure the safety of the City's water supply. Additionally, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Further information on the Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312.742.2406 or online at **www.dataservices.epa.illinois.gov/swap/factsheet.aspx**.

Unregulated Contaminant Monitoring Rule Fourth Edition (UCMR4)

The 1996 amendments to the Safe Drinking Water Act require that once every five years, the U.S. EPA issue a new list of no more than thirty unregulated contaminants to be monitored by public water supplies. The Unregulated Contaminant Monitoring Rule's (UCMR) intent is to provide the U.S. EPA with scientifically valid data on the occurrences of contaminants in drinking water. This national survey is one of the primary sources of information on occurrences and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply. In compliance with UCMR4, samples were collected at the Village's entry point to its distribution system; the samples were analyzed for all contaminant groups except for Haloacetic Acids (HAAs), which were sampled directly from the distribution system. The chart below addresses the Village's UCMR4 monitoring results of detected unregulated contaminants.

What's in My Water?

The Chicago Department of Water Management routinely monitors drinking water for contaminants in accordance with state and federal laws. In 2021, Chicago's public water supply was sampled as part of the State of Illinois Per- and Polyfluoroalkyl (PFAS) Statewide Investigation. Eighteen PFAS compounds were sampled, and none were detected in our finished drinking water.

The Village of Oak Park collects 60 bacteriological samples each month along with quarterly disinfectant by-product samples. The charts below illustrate substances detected in our water for the period of January 1 through December 31, 2023. Although all of the substances listed are below the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

DETECTED REGULATED CONTAMINANTS

CONTAMINANT (UNIT OF MEASUREMENT)	YEAR SAMPLED	MCL	MCLG	Village of Oak Park HIGHEST LEVEL DETECTED	Village of Oak Park RANGE OF DETECTIONS	City of Chicago HIGHEST LEVEL DETECTED	City of Chicago RANGE OF DETECTIONS	VIOLATION	TYPICAL SOURCE OF CONTAMINATION
Barium (ppm)	2023	2	2	N/A	N/A	0.0195	0.0192–0.0195	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine (ppm)	2023	MRDL = 4	MRDLG = 4	1.1	1–1.3	N/A	N/A	No	Water additive used to control microbes
Combined Radium 226/228 (pCi/L)**	2/4/2020	5	0	N/A	N/A	0.95	0.83–0.95	No	Erosion of natural and man-made deposits
Gross Alpha excluding Radon and Uranium (pCi/L)**	2/4/2020	15	0	N/A	N/A	3.1	2.8–3.1	No	Erosion of natural and man-made deposits
Flouride (ppm)	2023	4	4	N/A	N/A	0.74	0.66–0.74	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Haloacetic acids [HAA5] (ppb)*	2023	60	No goal for the total	17	7.73–30.3	N/A	N/A	No	By-products of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb)*	2023	80	No goal for the total	34	18.75–56.8	N/A	N/A	No	By-products of drinking water disinfection
Total Coliform Bacteria (% positive samples per month)	2023	5% of monthly samples are positive	0	ND	ND	N/A	N/A	No	Naturally present in the environment
Total Nitrate & Nitrite (as Nitrogen) (ppm)	2023	10	10	N/A	N/A	0.33	0.29–0.33	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion from natural deposits.
Nitrate (as Nitrogen) (ppm)	2023	10	10	N/A	N/A	0.33	0.29–0.33	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion from natural deposits.
Turbidity (NTU) (Highest single measurement)	2023	TT (Limit 1 NTU)	N/A	N/A	N/A	0.25	N/A	No	Soil runoff
Turbidity %≤0.3 NTU (Lowest % of samples meeting limit)	2023	TT (Limit 95% ≤ 0.3 NTU)	N/A	N/A	N/A	Lowest Monthly %: 100%	100% to 100%	No	Soil runoff

Tap water samples were collected for lead and copper analysis from sample sites throughout the Village of Oak Park

CONTAMINANT (UNIT OF MEASUREMENT)	YEAR SAMPLED	AL	MCLG	LEVEL DETECTED *(90th %TILE)*	# OF SITES ABOVE AL	VIOLATION	TYPICAL SOURCE OF CONTAMINATION
Copper (ppm)**	2021	1.3	1.3	ND	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)**	2021	15	0	3.14	0	No	Corrosion of household plumbing systems; erosion of natural deposits

UNREGULATED CONTAMINANTS (CITY OF CHICAGO RESULTS)

CONTAMINANT (UNIT OF MEASUREMENT)	YEAR SAMPLED	MCL	MCLG	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	TYPICAL SOURCE OF CONTAMINATION
Sodium (ppm)	2023	N/A	N/A	8.71	8.43–8.71	Erosion of naturally occurring deposits; used in water softener regeneration
Sulfate (ppm)	2023	N/A	N/A	27.8	25.0–27.8	Erosion of naturally occurring deposits

TOTAL ORGANIC CARBON (TOC): The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA.

UNREGULATED CONTAMINANTS (OAK PARK UCMR4 RESULTS)**

CONTAMINANT (UNIT OF MEASUREMENT)	YEAR SAMPLED	MCL	MCLG	AVERAGE LEVEL DETECTED	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	TYPICAL SOURCE OF CONTAMINATION
Haloacetic Acids [HAA5] (ppb)***	2020	60	No Goal for the Total	13.23	18.02	8.42–18.02	By-products of drinking water disinfection
Haloacetic Acids [HAA6Br] (ppb)	2020	N/A	N/A	9.88	12.1	5.39–12.1	By-products of drinking water disinfection
Haloacetic Acids [HAA9] (ppb)	2020	N/A	N/A	21.96	28.02	17.02–28.02	By-products of drinking water disinfection
Quinoline (ppb)	2020	N/A	N/A	0.024	0.024	0.024	Component of coal
Manganese (ppb)****	2020	150	N/A	0.56	0.56	0.56	Erosion of natural deposits

WATER QUALITY DATA TABLE FOOTNOTES

Turbidity: Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

Unregulated Contaminants: An MCL for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language been set. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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

Sodium: There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns 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.

* Data is expressed as highest Locational Running Annual Average (LRAA). The LRAA is the average of 4 consecutive quarterly results at each monitored distribution system sample site. The LRAA should not exceed 80 ppb for TTHM and 60 ppb for HAA5
** Certain contaminants are sampled less frequently than once a year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Compliance monitoring for lead and copper is conducted every 3 years. Radiochemical contaminant monitoring is conducted by the City of Chicago every 6 years
*** Regulated HAAs (HAA5) were included in UCMR4's monitoring program to gain a better understanding of co-occurrence with currently unregulated disinfection by-products.
**** Manganese: This contaminant is only regulated by the State EPA; a federal MCL does not exist.

UNITS OF MEASUREMENT

NTU: Nephelometric Turbidity Unit

ppb (ug/L): Parts per billion, or micrograms per liter — or one ounce in 7,350,000 gallons of water

ppm (mg/L): Parts per million, or milligrams per liter — or one ounce in 7,350 gallons of water)

%≤0.3 NTU: Percent of samples less than or equal to 0.3 NTU

pCi/L: Picocuries per liter (a measure of radioactivity)

Definition of Terms

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

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in the CCR calendar year, except where a specific date is indicated.

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 allow for a margin of safety.

Maximum Contaminant Level (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 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

N/A: Not applicable

ND: Contaminant not detected at or above the reporting or testing limit.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

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

Year Sampled: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

Annual Water Quality Report

Water testing performed in 2022

Oak Park

The Village of Oak Park
Village Hall
123 Madison Street
Oak Park, Illinois 60302
www.oak-park.us

708.358.5700
publicworks@oak-park.us

PWS ID#: 0312250

Spanish–Este informe contiene información muy importante sobre el agua que usted bebe. Tradúscalo ó hable con alguien que lo entienda bien. (This report contains very important information regarding your drinking water. Translate it, or speak with someone who understands it.)

Introduction

Each year, the Village of Oak Park provides residents with a report on the quality of their drinking water. This report is intended to provide important information about your drinking water and the efforts made by the Village to provide safe drinking water. The report includes drinking water facts and information on violations and contaminants detected in the drinking water supply. This year's report is for water tested from January 1, 2022 through December 31, 2022.

The Village is dedicated to supplying drinking water that meets or exceeds all state and federal standards. As new challenges to drinking water safety emerge, the Village remains vigilant in source water protection, conservation, and community education, while continuing to serve the needs of all water users.

Informed customers are our best allies. Questions and comments are welcome. For more information regarding the content of this report or to request a printed copy, please contact Mike Bills, Water & Sewer Superintendent, at 708.358.5730 or email **publicworks@oak-park.us**.

2022 Violation Summary

The Village of Oak Park is proud to report that no violations were received in the 2022 sampling year.

Community Participation

Regular Village Board meetings are held at 7 p.m. on the first and third Monday of each month in Council Chambers of Village Hall, 123 Madison St. Meetings also are streamed live and archived at **www.oak-park.us/boardtv**. Residents are invited to follow us at **twitter.com/vopnews** and **facebook.com/vopnews** and to sign up for news via email at **www.oak-park.us/enews**.

Source Water Location

Lake Michigan is the sole source of drinking water for the Village of Oak Park. Water arrives pretreated via pipelines from the City of Chicago's two water treatment plants. Water from the City is stored by the Village in four underground reservoirs that can hold a combined 12.5 million gallons. The water in the reservoirs remains in constant motion to maintain freshness — only a small amount of chlorine is added before pumped into the Village's distribution system of 112 miles of water mains. To ensure purity, water samples are routinely gathered throughout the water system, from the source to your home. A state-certified lab tests the samples using equipment that can measure substances down to one part in a billion, or one ounce in 7,350,000 gallons of water.

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 third largest by area. Oak Park began receiving drinking water from Lake Michigan via the City of Chicago in 1912. About 400,000 gallons of water were pumped each day for the Village's 20,000 residents. Today, an average of five million gallons per day is pumped to Oak Park's 54,000 residents. The rate for water in 1912 was about seven cents per 1,000 gallons of water. Today, Oak Park's water rate is $10.40 per 1,000 gallons. Oak Park must continually adjust water rates in response to rate changes imposed by the City of Chicago and to maintain the Village's water distribution system.

Important Health Information

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. U.S. EPA/Centers for Disease Control (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 1.800.426.4791.

Substances that Might be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 U.S. EPA's Safe Drinking Water Hotline (1.800.426.4791). The sources of drinking water (both bottled and tap water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Substances 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/or wildlife;
- **Inorganic contaminants,** such as salts and metals, which can be naturally occurring or may 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 use;
- **Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems;
- **Radioactive contaminants,** which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 1.800.426.4791.

Lead and Drinking Water

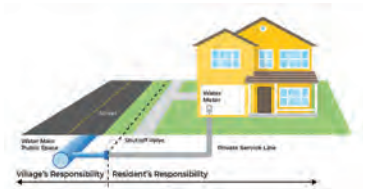
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with lead service lines and home plumbing. The Village of Oak Park is responsible for providing high quality drinking water, but cannot control the variety of materials used in interior plumbing components. When water has been sitting for several hours, the potential for lead exposure can be minimized by running the tap for thirty seconds 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 that you can take to minimize exposure is available from the U.S. EPA Safe Drinking Water Hotline or at **www.epa.gov/safewater/lead**. For more information, please visit the Village's Frequently Asked Questions webpage regarding Oak Park's drinking water at **www.oak-park.us/lead-water-faq**.

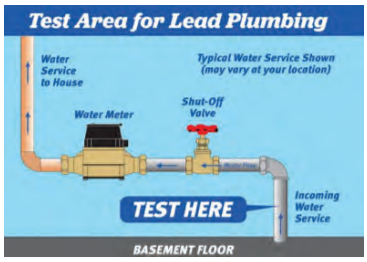
How to Identify a Lead Service Line

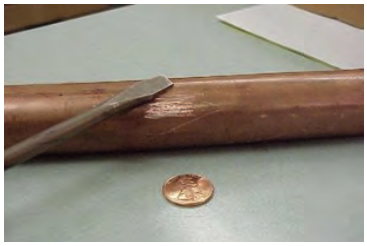
Pursuant to the Illinois Lead Service Line Replacement and Notification Act, all community water supplies must develop and maintain a comprehensive water service line material inventory. A water service line is the pipe that connects the water main to the plumbing in a home or building; the illustration below is an example of how your home's water service line connects to the Village's water main.

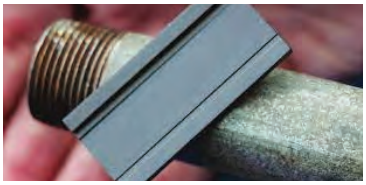
A scratch test is a simple, quick method for identifying the service line material entering a home or building.

Lead service lines were installed primarily during the late 1800s through the 1940s. Lead is a dull, soft, non-magnetic material that turns a shiny silver color when scratched.









When performing a scratch test, if it turns shiny silver, like the image above, it is likely lead. If the scratched area turns yellow-orange, it is likely copper.

Galvanized iron pipe can also be silver in color, to distinguish between lead and galvanized iron, place a magnet on the pipe. If the magnet sticks to the pipe, it's likely iron and not lead.

Always use care when performing a scratch test and avoid using sharp objects. Never perform the test directly on a wiped joint. A wiped joint is a bulge-shaped, type of soldered joint commonly used to join lead pipes. A wiped joint is typically a good indication that the service line material is lead. Below are examples of wiped joints on lead service lines.

The public side of water services, being the portion between the Village's water main and the homeowner's water shut-off valve, will be upgraded from lead or galvanized iron pipe to copper whenever the water main is replaced or if the homeowner elects to replace the private side of their water service.

Residents can assist the Village's efforts in developing its Service Line Material Inventory by sharing information on their service line material with the Public Works Department at 708.358.5700 or **publicworks@oak-park.us**. Residents who are curious about their service line material can also contact the Public Works Department to arrange an appointment for a staff member to arrive and identify the service line material at their home. In Summer 2023, building and home owners will receive a survey from the Village inquiring about their service line material.

2022 Voluntary Monitoring and Cryptosporidium

The City of Chicago monitors for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. Neither Cryptosporidium or Giardia were detected in source water samples collected in 2022. 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 water, the possibility of such organisms entering the drinking water system is greatly reduced.

In 2022, the City of Chicago has also continued monitoring for hexavalent chromium, also known as Chromium-6. The U.S. EPA has not yet established a standard for Chromium-6, a contaminant of concern which has both natural and industrial sources. Chromium-6 sampling data is posted on the City of Chicago's website at: **www.chicago.gov/city/en/depts/water/supp_info/water_quality_resultsandreports.html**.

Any questions or concerns regarding this voluntary monitoring should be addressed to the Chicago Department of Water Management at 312.744.8190.

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. To view a summary version of the completed Source Water Assessment, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/ recommendation of Source Water protection Efforts, you may access the Illinois EPA's website at **www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl**.

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 other than 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. Chicago has taken extraordinary steps to ensure a safe source of drinking water in the area, from the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's water ways and the city's Lakefront Zoning Ordinance. The City now looks to the Department of Water Management and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) to ensure the safety of the city's water supply. Additionally, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Further information on the Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312.742.2406 or online at **www.dataservices.epa.illinois.gov/swap/factsheet.aspx**.

Unregulated Contaminant Monitoring Rule Fourth Edition (UCMR4)

The 1996 amendments to the Safe Drinking Water Act require that once every five years, the U.S. EPA issue a new list of no more than thirty unregulated contaminants to be monitored by public water supplies. The Unregulated Contaminant Monitoring Rule's (UCMR) intent is to provide the U.S. EPA with scientifically valid data on the occurrences of contaminants in drinking water. This national survey is one of the primary sources of information on occurrences and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply. In compliance with UCMR4, samples were collected at the Village's entry point to its distribution system; the samples were analyzed for all contaminant groups except for Haloacetic Acids (HAAs), which were sampled directly from the distribution system. The chart below addresses the Village's UCMR4 monitoring results of detected unregulated contaminants.

What's in My Water?

The Chicago Department of Water Management routinely monitors drinking water for contaminants in accordance with state and federal laws. In 2021, Chicago's public water supply was sampled as part of the State of Illinois Per- and Polyfluoroalkyl (PFAS) Statewide Investigation. Eighteen PFAS compounds were sampled, and none were detected in our finished drinking water.

The Village of Oak Park collects 60 bacteriological samples each month along with quarterly disinfectant by-product sampling. The charts below illustrate substances detected in our water for the period of January 1 through December 31, 2022. Although all of the substances listed are below the Maximum Concentration Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The Illinois EPA requires the Village to monitor for certain substances less than once per year because the concentrations of these substances do not frequently change. In these cases, the most recent sample data is provided, along with the year in which the sample was collected.

DETECTED REGULATED SUBSTANCES

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	Village of Oak Park: HIGHEST LEVEL DETECTED	Village of Oak Park: RANGE OF DETECTIONS	City of Chicago: HIGHEST LEVEL DETECTED	City of Chicago: RANGE OF DETECTIONS	VIOLATION	TYPICAL SOURCE OF CONTAMINATION
Barium (ppm)	2022	2	2	N/A	N/A	0.0201	0.0193–0.0201	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2022	4	4	1.1	1–1.3	N/A	N/A	No	Water additive used to control microbes
Combined Radium 226/228 (pCi/L)**	2/4/2020	5	0	N/A	N/A	0.95	0.83–0.95	No	Erosion of natural and man made deposits
Flouride (ppm)	2022	4	4	N/A	N/A	0.76	0.63–0.76	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Gross alpha excluding radon and uranium (pCi/L)**	2/4/2020	15	0	N/A	N/A	3.1	2.8–3.1	No	Erosion of natural and man made deposits
Haloacetic acids [HAA5] (ppb)*	2022	60	No goal for the total	19	9.65–20.75	N/A	N/A	No	By-products of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb)*	2022	80	No goal for the total	35	19.77–50.2	N/A	N/A	No	By-products of drinking water disinfection
Total Coliform Bacteria (% positive samples per month)	2022	5% of monthly samples are positive	0	ND	ND	N/A	N/A	No	Naturally present in the environment
Total Nitrate & Nitrite (as Nitrogen) (ppm)	2022	10	10	N/A	N/A	0.30	0.30–0.30	No	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion from natural deposits.
Nitrate (as Nitrogen) (ppm)	2022	10	10	N/A	N/A	0.30	0.30–0.30	No	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion from natural deposits.
Turbidity (NTU) (Highest single measurement)	2022	TT (Limit 1 NTU)	N/A	N/A	N/A	0.30	N/A	No	Soil runoff
Turbidity %≤0.3 NTU (Lowest % of samples meeting limit)	2022	TT (Limit 95% ≤ 0.3 NTU)	N/A	N/A	N/A	Lowest Monthly %: 100%	100% to 100%	No	Soil runoff

Tap water samples were collected for lead and copper analysis from sample sites throughout the Village of Oak Park

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	AL	MCLG	LEVEL DETECTED *(90th %TILE)*	# OF SITES ABOVE AL	VIOLATION	TYPICAL SOURCE OF CONTAMINATION
Copper (ppm)	2021	1.3	1.3	ND	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0	3.14	0	No	Corrosion of household plumbing systems; erosion of natural deposits

UNREGULATED CONTAMINANTS (CITY OF CHICAGO RESULTS)

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	TYPICAL SOURCE
Sodium (ppm)	2022	N/A	N/A	9.08	8.56–9.08	Erosion of naturally occurring deposits; Used in water softener regeneration
Sulfate (ppm)	2022	N/A	N/A	27.1	25.8–27.1	Erosion of naturally occurring deposits

TOTAL ORGANIC CARBON (TOC): The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA.

UNREGULATED CONTAMINANTS (OAK PARK UCMR4 RESULTS)**

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AVERAGE LEVEL DETECTED	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	TYPICAL SOURCE
Haloacetic Acids [HAA5] (ppb)***	2020	60	No Goal for the Total	13.23	18.02	8.42–18.02	By-products of drinking water disinfection
Haloacetic Acids [HAA6Br] (ppb)	2020	N/A	N/A	9.88	12.1	5.39–12.1	By-products of drinking water disinfection
Haloacetic Acids [HAA9] (ppb)	2020	N/A	N/A	21.96	28.02	17.02–28.02	By-products of drinking water disinfection
Quinoline (ppb)	2020	N/A	N/A	0.024	0.024	0.024	Component of coal
Manganese (ppb)****	2020	150	N/A	0.56	0.56	0.56	Erosion of natural deposits

Definition of Terms

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 allow for a margin of safety.
Maximum Contaminant Level (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 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.
Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in the CCR calendar year, except where a specific date is indicated.
Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.
Year Sampled: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which the water system must follow.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
ND: Contaminant Not Detected at or above the reporting or testing limit.
N/A: Not applicable

WATER QUALITY DATA TABLE FOOTNOTES

Turbidity: Turbidity is a measure 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.
Unregulated Contaminants: An MCL for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language been set. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
Fluoride: Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7 mg/L with a range of 0.6 mg/L to 0.8 mg/L.
Sodium: There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns 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.
* Data is expressed as highest Locational Running Annual Average (LRAA). The LRAA is the average of 4 consecutive quarterly results at each monitored distribution system sample site. The LRAA should not exceed 80 ppb for TTHM and 60 ppb for HAA5.
** The EPA requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Compliance monitoring for lead and copper is conducted every 3 years. Radiochemical contaminant monitoring is conducted by the City of Chicago every 6 years.
*** Regulated HAAs (HAA5) were included in UCMR4's monitoring program to gain a better understanding of co-occurrence with currently unregulated disinfection by-products.
**** Manganese: This contaminant is only regulated by the State. No federal MCL exists.

UNITS OF MEASUREMENT

pCi/L: Picocuries per liter (a measure of radioactivity)
ppb (ug/L): Parts per billion, or micrograms per liter — or one ounce in 7,350,000 gallons of water
ppm (mg/L): Parts per million, or milligrams per liter — or one ounce in 7,350 gallons of water)
%≤0.3 NTU: Percent of samples less than or equal to 0.3 NTU
NTU: Nephelometric Turbidity Unit

Exhibit D

NEW YORK CITY DRINKING WATER SUPPLY AND QUALITY REPORT 2023

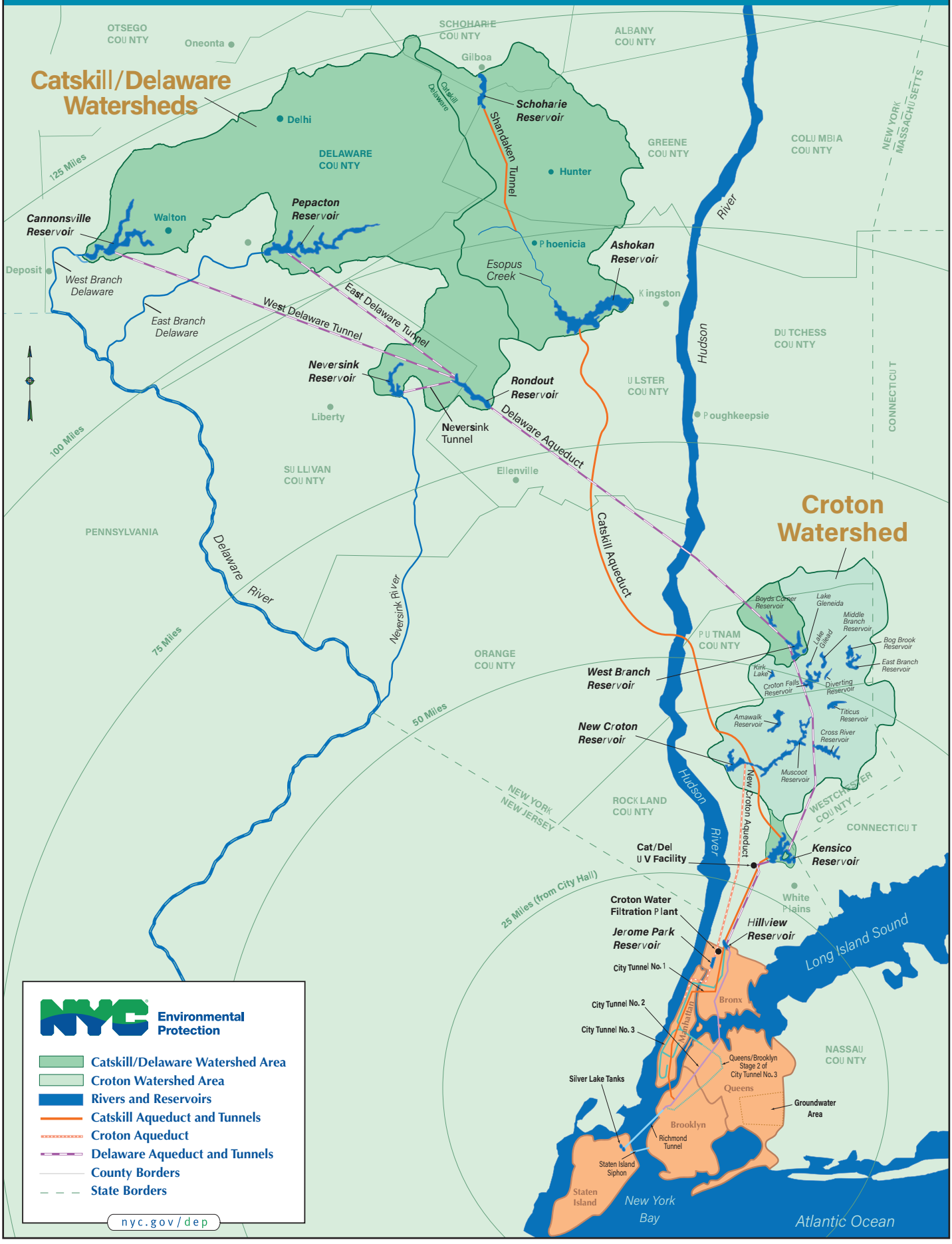
Art by: Karolina O., St. Francis Preparatory HS
2023 Water Resources Art & Poetry Contest

NYC Environmental Protection

Eric Adams
Mayor

Rohit T. Aggarwala
Commissioner

NEW YORK CITY'S WATER SUPPLY SYSTEM



NYC Environmental Protection

Dear Friends:

On behalf of my nearly 6,000 colleagues at the Department of Environmental Protection (DEP), I am proud that DEP continues to deliver one billion gallons of some of the best tap water in the world to more than 9.8 million New Yorkers each and every day. The choice is clear – New York City water is the champagne of tap water! Here in New York we are fortunate to have a water supply that is well protected and managed by dedicated scientists, engineers, and other highly skilled professionals who have earned admiration among their colleagues throughout the world.

DEP continuously monitors the water in the distribution system, upstate reservoirs, feeder streams, and wells that are potential sources for New York City's drinking water supply. We have made substantial investments to upgrade and rehabilitate our water supply infrastructure and protect the quality of our drinking water, with multi-billion dollar projects currently taking place at the Catskill and Delaware aqueducts, among others. More than $1 billion has also been committed to administering a number of watershed protection and pollution prevention programs to maintain the high quality of our drinking water at the source. This report illustrates that New York City's drinking water continued to be of excellent quality in 2023.

DEP scientists collected 44,800 samples throughout our watershed and reservoir system, and from nearly 1,000 street-side sampling stations in every neighborhood across the city, analyzing those samples 589,500 times at our four water quality laboratories. Robotic monitoring stations on our reservoirs and in our streams provided another 2.4 million tests to ensure DEP was sending the best-quality water to New York City at all times.

Sincerely,

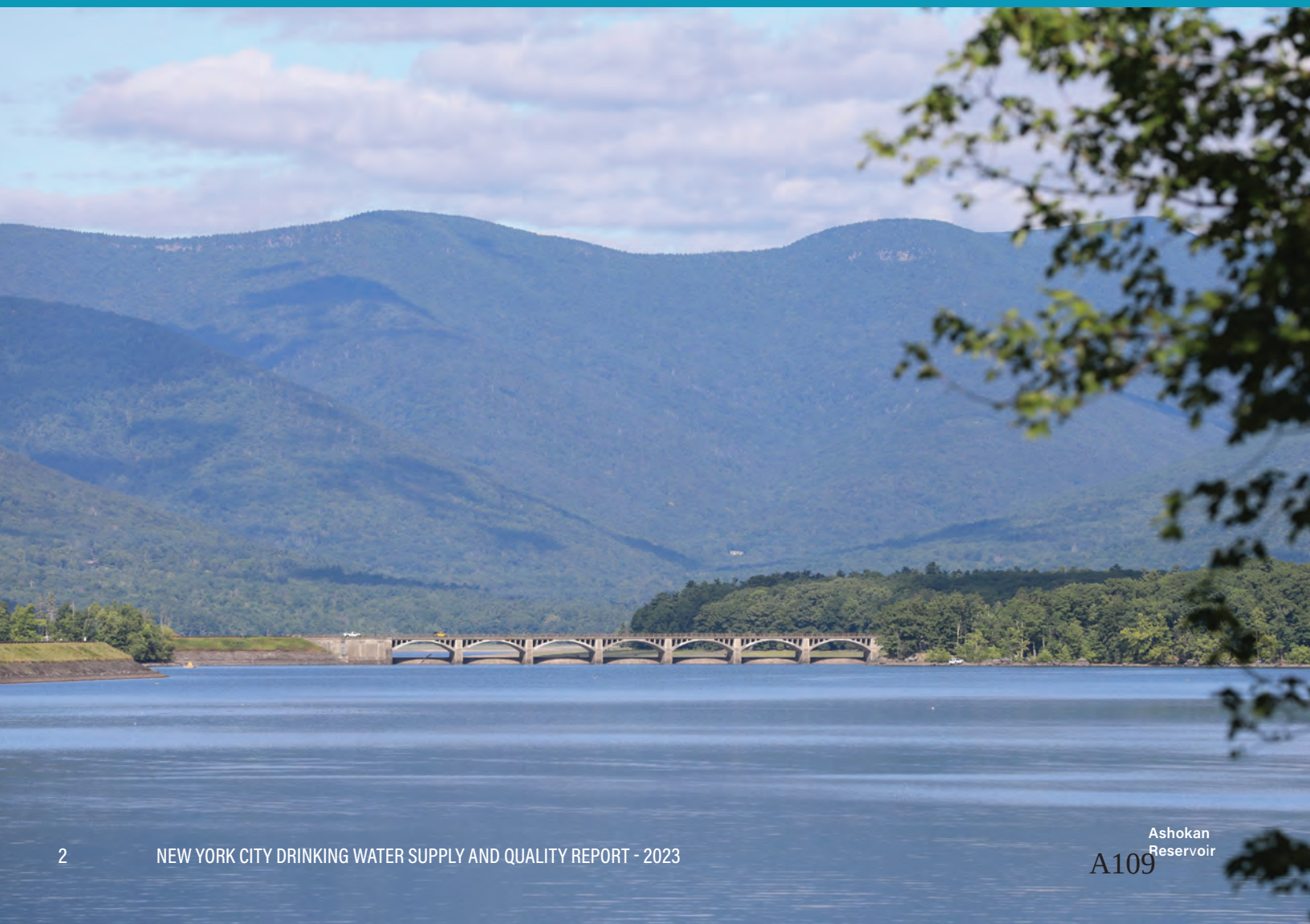
Rohit T. Aggarwala, Commissioner
NYC Department of Environmental Protection

NEW YORK CITY'S WATER SUPPLY SYSTEM

New York City's water supply system provides more than one billion gallons of safe, high-quality drinking water every day to more than 8.8 million residents of New York City and one million people living in the counties of Westchester, Putnam, Orange, and Ulster.

New York City gets its drinking water from 19 reservoirs and three controlled lakes spread across a nearly 2,000-square-mile watershed. The watershed is located upstate in portions of the Hudson Valley and Catskill Mountains that are as far as 125 miles north of the city. New York City's water supply system is composed of two primary surface water supplies called the Catskill/Delaware and Croton. The City also has a permit to operate a groundwater supply in southeast Queens, although water from that system has not been delivered to customers in many years. In all, this system serves half the population of New York State.

In 2023, DEP delivered a total of 368.3 billion gallons of drinking water to New York City, withdrawing a total of 385.6 billion gallons from the system. DEP also delivered 36.9 billion gallons to 70 communities and institutions outside NYC. The Catskill/Delaware provided 95 percent of the water and the Croton 5 percent. DEP estimates that 14.7% of water delivered was non-revenue producing in 2023.



Ashokan Reservoir

New York City's water supply system provides more than one billion gallons of safe drinking water every day.

TREATING OUR DRINKING WATER

CATSKILL/DELAWARE SUPPLY

Due to the very high quality of our Catskill/Delaware supply, New York City is one of only five large cities in the country with a surface drinking water supply that does not utilize filtration as a form of treatment. The Catskill/Delaware supply operates under a filtration waiver, referred to as the "Filtration Avoidance Determination" (FAD), and the water from this supply is treated using two forms of disinfection to reduce microbial risk.

Water is disinfected with chlorine, a common disinfectant added to kill germs and stop bacteria from growing on pipes, and then with ultraviolet (UV) light at the Catskill/Delaware UV Disinfection Facility. The facility, located in Westchester County, is the largest of its kind in the world and is designed to disinfect more than two billion gallons of water per day. At this facility, exposure to UV light inactivates potentially harmful microorganisms without changing the water.

DEP also adds food grade phosphoric acid, sodium hydroxide, and fluoride to the water before sending it into distribution. Phosphoric acid is added because it creates a protective film on pipes that reduces the release of metals, such as lead, from service lines and household plumbing. Sodium hydroxide is added to raise the pH, which reduces corrosion of household plumbing. Fluoride is added to improve dental protection at a federally approved level of 0.7 mg/L, because it is effective in preventing cavities. During 2023, 99.9 percent of the water produced by the Catskill/Delaware supply was fluoridated.

CROTON SUPPLY

The Croton supply is filtered at the Croton Water Filtration Plant, located underground in the Bronx. The plant can treat up to 290 million gallons of drinking water each day, which helps to ensure a large enough supply of water for the city to withstand droughts, periodically shut down other parts of the water supply, and respond to the potential effects of climate change. The Croton Water Filtration Plant first began operating in May 2015.

Once water arrives at the filtration plant it undergoes treatment to remove impurities. The treatment processes include coagulation, dissolved air flotation, filtration, and disinfection. During coagulation, chemicals are added to untreated water, causing any particulates to bunch together and become a mass of particles called floc. Then injected air bubbles float the floc to the top where it is skimmed off using a process called dissolved air flotation. Finally, the water flows through a filter bed of granular activated carbon and sand removing any remaining particles. Just like the Catskill/Delaware supply, Croton water is disinfected with chlorine and UV light to protect against potentially harmful microorganisms, and is treated with food grade phosphoric acid, sodium hydroxide, and fluoride. In 2023, 100 percent of the Croton water produced by the plant was fluoridated.

DEP Scientists performed over 357,700 analyses on 31,600 samples from the distribution system in 2023.

TESTING FOR DRINKING WATER QUALITY

SAMPLING AND MONITORING

DEP monitors the water in the distribution system, upstate reservoirs and feeder streams, and wells that are potential sources for New York City's drinking water supply. We continuously sample and conduct analyses for numerous water quality parameters, including microbiological, chemical, and physical measurements, throughout the watershed as the water enters the distribution system, and at nearly 1,000 water quality sampling stations throughout New York City.

In 2023, DEP performed more than 357,700 analyses on over 31,600 samples from the distribution system, meeting all state and federal monitoring requirements. These data are summarized in tables starting on page 11. Additionally, DEP performed approximately 231,800 analyses on about 13,200 samples from the upstate reservoir watersheds and took more than 2.4 million robotic monitoring measurements to support FAD watershed protection programs and to optimize water quality.

REGULATION 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 pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants.

To ensure that tap water is safe to drink, the New York State Department of Health (NYSDOH) and the United States Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The NYSDOH and the federal Food and Drug Administration's (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The presence of contaminants does not necessarily indicate that water poses a health risk. These regulations also establish the minimum amount of testing and monitoring that each system must undertake to ensure that the tap water is safe to drink. Visit **epa.gov/safewater** or **health.ny.gov** for more information about drinking water.

PROTECTING OUR WATER AT THE SOURCE

FILTRATION AVOIDANCE DETERMINATION (FAD)

DEP has funded and administered several watershed protection and pollution prevention programs to maintain the high quality of our drinking water, since 1993. These science-based strategies are designed to protect New York City's drinking water at its source by keeping pollution out of our reservoirs and the streams, creeks, and rivers that feed them.

NYSDOH issued mid-term revisions to the 2017 FAD on December 29, 2022, that allow DEP to continue operating the Catskill/Delaware supply without filtration through at least 2027. DEP has committed an estimated $1 billion to comply with the FAD, which goes towards our watershed programs that conserve watershed lands, upgrade wastewater infrastructure, implement clean water strategies on watershed farms, and manage streams, forests, and other natural resources that affect water quality.

SOURCE WATER ASSESSMENT PROGRAMS

Federal regulations require states to develop and implement source water assessment programs to identify the areas that supply public tap water, inventory contaminants, assess water system susceptibility to contamination, and inform the public of the results. The states are given a great deal of flexibility on how to implement source water assessment programs. These assessments are created using available information to help estimate the potential for source water contamination. Because of DEP's extensive watershed protection and pollution prevention programs, NYSDOH does not find it necessary to perform a source water assessment on the New York City water supply.

DEP Scientist collecting water samples at the Ashokan Reservoir

The Delaware Aqueduct Bypass Tunnel is the largest repair project in the 180-year history of New York City's water supply system

CAPITAL UPGRADES

In 2023 DEP continued moving forward with substantial capital investments throughout our water supply infrastructure, stretching as far as 125 miles from the five boroughs deep into the Catskill Mountains.

We are nearing the end of the largest and most complex project in the history of New York City's water supply as we prepare to complete the repair of the Delaware Aqueduct. The aqueduct is the longest tunnel in the world and is a primary water supply artery from our reservoirs in the Catskills to New York City. In 2023, we partially unwatered the aqueduct, work that was a critical part of testing ahead of the planned shutdown in 2024. The shutdown will enable the final connection of a newly completed 2.5-mile tunnel, which sits 600 feet below the Hudson River, to bypass a leaking section of the aqueduct. It will also allow workers to enter the aqueduct to repair smaller leaks in the tunnel in Ulster County. With this $1 billion bypass project, DEP will be completing the first new tunnel under the Hudson River since the south tube of the Lincoln Tunnel was completed in 1957.

This year, DEP also made significant progress on planning, design, and construction bidding for two large infrastructure projects in Westchester County mandated by the Hillview Consent Decree and Judgment, which are both slated to break ground in 2024. The Hillview Reservoir Improvements Project in Yonkers is an overhaul of the water treatment and chemical storage facilities at the reservoir and includes upgrades to the site's water management infrastructure. The 100-year-old reservoir continues to play an essential role as the balancing reservoir that ensures drinking water is continuously available to all parts of New York City as consumption changes throughout the day.

After years of careful planning, DEP is in the final stages of preparation to break ground on a new $1.9 billion 27-foot-diameter two-mile long water tunnel connecting the Kensico Reservoir with the Catskill Delaware Ultraviolet Treatment Facility. The project, as mandated by the Hillview Consent Decree and Judgment, will improve flexibility between vital water supply facilities that serve more than 10 million people in New York City and Westchester County.

Workers are also putting finishing touches on more than a decade's worth of major capital improvements to New York City's northernmost infrastructure, the Schoharie Reservoir. At a cost of nearly $400 million, DEP upgraded and fortified the reservoir's dam and built new water tunnels, water management infrastructure and a unique new water release system.

CONSERVING OUR SUPPLY

Although New York City has grown by more than 1.3 million people since 1980, demand for water has dropped by approximately 35 percent—making it one of the most water-efficient large cities in the country.

The average single-family household in New York City uses approximately 70,000 gallons of water each year at a cost of $4.49 per 100 cubic feet of water (748 gallons), or about $420 a year. Since nearly all customers also receive wastewater collection and treatment services, which cost about $668, the combined annual water and sewer charge for the typical New York City household using 70,000 gallons per year is $1,088, calculated at fiscal year 2024 rates, effective July 1, 2023.

Advances in technology have played a key role in the drop in water use, from the replacement of thousands of inefficient toilets through DEP's toilet replacement program, to an automated leak detection program, which helps our customers save both money and water by alerting homeowners to unusual spikes in water consumption. In 2023 we continued our partnership with NYC's Health and Hospitals Corporation (HHC) to complete a water-saving retrofit project at Bellevue Hospital. DEP funded the replacement of six vacuum pumps that serve two medical vacuum systems. The retrofits are expected to greatly improve efficiency and result in significant water savings.

Our partnership with the City University of New York (CUNY) included more than 1,000 fixture upgrades at City College, resulting in a savings of 40,000 gallons of water per day, and we extended this important partnership to replace inefficient fixtures at Queens College. We plan to replace more than 1,000 fixtures across the college's four campus buildings for an additional savings of 30,000 gallons per day.

These, and other recent investments, have reduced overall demand for water by more than 22 million gallons per day, with an anticipated total water savings of 2.8 million gallons per day through new and ongoing initiatives. We will continue to implement innovative water conservation strategies and projects to meet DEP's sustainability goals and plan to release the next Water Demand Management Plan Annual Update in June 2024.

DOs & DON'Ts of Water Conservation

In or out of a drought, every New Yorker can save hundreds of gallons of water each week by following these simple water-saving tips.

BATHROOM

- ✔ Do take short showers and save 5 to 7 gallons a minute.
- ✔ Do fill the tub halfway and save 10 to 15 gallons.
- ✔ Do install water-saving toilets, shower heads and faucet aerators. Place a plastic bottle filled with water in your toilet tank if you can't switch to a low flow toilet.
- ✗ Don't run the water while shaving, washing your hands or brushing your teeth. Faucets use 2 to 3 gallons a minute.
- ✗ Don't use the toilet as a wastebasket, and don't flush it unnecessarily.

OUTDOORS

- ✔ Do use a self-closing nozzle on your hose.
- ✗ Don't water your sidewalk or driveway–sweep them clean.
- ✗ Don't over water your lawn or plants. Water before 9 a.m. or after 7 p.m.

KITCHEN & LAUNDRY

- ✔ Do run the dishwasher and washing machine only when full. Save even more by using the short cycle.
- ✔ Do install faucet aerators.
- ✗ Don't let the water run while washing dishes. Kitchen faucets use 2 to 3 gallons a minute. Filling a basin only takes 10 gallons to wash and rinse.
- ✗ Don't run water to make it cold. Have it chilled in the refrigerator, ready to drink.

EVERYWHERE

- ✔ Do repair leaky faucets and turn taps off tightly. A slow drip wastes 15 to 20 gallons each day.
- ✗ Don't open fire hydrants.

TO LEARN MORE, CALL 311.

CRYPTOSPORIDIUM AND *GIARDIA*

DEP maintains a comprehensive program to monitor in source waters and key streams for the presence of *Cryptosporidium* and *Giardia*, microscopic organisms that can cause disease. Disease and syndromic surveillance continue to indicate that there have been no outbreaks of the diseases they cause, cryptosporidiosis and giardiasis, attributed to consuming tap water in New York City. *Cryptosporidium* and *Giardia* data are presented on page 14 of this report.

Federal and state law requires all water suppliers to notify their customers about the potential risks from *Cryptosporidium* and *Giardia*. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Some people may be more vulnerable to disease causing microorganisms, or pathogens in drinking water than the general population. Immunocompromised 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 individuals, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water.

EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia*, and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

HILLVIEW RESERVOIR CONSENT JUDGMENT

The Hillview Reservoir is the final stop for drinking water from the Catskill/Delaware System before it enters the city's distribution system. The City and DEP entered into a Consent Decree and Judgment with the United States and New York State, effective May 15, 2019, which sets forth a schedule of compliance for the City to cover the Hillview Reservoir as required by the Long Term 2 Enhanced Surface Water Treatment Rule (40 C.F.R §141.714). DEP and the City complied with all 2023 commitments due under the Decree.

Hillview Reservoir

IS THERE LEAD IN MY DRINKING WATER?

New York City's award-winning tap water is delivered lead-free through 7,000 miles of lead-free aqueducts, tunnels, and water mains in the city's water supply system. However, homes built prior to 1961 may have lead service lines (which connect your house to the city's water main in the street), and some homes, regardless of the year they were built, could have household plumbing and internal fixtures that contain lead. Although New York City takes extensive steps to protect water in homes that may have lead in their plumbing, lead from plumbing may still be released into a home's drinking water. Lead levels at your home may be higher than at other homes in the community because of materials used in your home's plumbing. DEP is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components.

HOW CAN I FIND OUT IF I HAVE A LEAD SERVICE LINE?

Visit **nyc.gov/leadfree** to view an interactive map. This map offers historical information largely based on third party plumbing records, supplemented in some cases by information gathered during inspections.

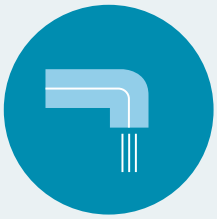
HOW CAN I TEST THE WATER IN MY HOME?

DEP offers free lead test kits to all New York City residents. Call 311 or visit **nyc.gov/apps/311** to request a free lead test kit. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at **epa.gov/safewater/lead**.

WHAT ARE THE HEALTH EFFECTS OF LEAD?

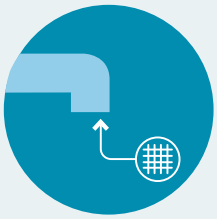
Exposure to lead can cause serious health problems, especially for pregnant women, infants, and young children. For more information, visit **nyc.gov/lead**.

HOW CAN I LIMIT MY LEAD EXPOSURE?



Run Your Tap
for 30 seconds to 2 minutes before using water for drinking or cooking, when your water has been sitting for several hours.

Use Cold Water
for cooking, drinking, or preparing infant formula. Hot tap water is more likely to contain lead and other metals.



Remove & Clean
the faucet screen monthly (also called an aerator), where small particles can get trapped.

Hire
a licensed plumber to identify and replace plumbing fixtures and/or service line that contain lead.

DEP Scientists continuously sample and conduct analyses for hundreds of water quality parameters

HOW TO READ THE NEW YORK CITY 2023 DRINKING WATER QUALITY TESTING RESULTS

The following section of this report compares the quality of your tap water to federal and state standards for each parameter (if applicable). The monitoring results show that New York City's drinking water continues to be of excellent quality.

The following tables reflect the compliance monitoring results for all regulated and non-regulated parameters, the number of samples collected, the range of values detected, the average of the values detected, and the possible sources of the parameters, unless otherwise footnoted. The monitoring frequency of each parameter varies and is parameter specific. Data presented are for the Catskill/Delaware and Croton supplies, which were the only sources of water in 2023.

The table on page 15 represents those parameters monitored for, but not detected in any sample. Most of our data are representative of 2023 testing. Concentrations of parameters or contaminants do not change frequently.

THE NEW YORK CITY 2023 DRINKING WATER QUALITY TESTING RESULTS

Detected Conventional Physical and Chemical Parameters

This table summarizes the monitoring results for all detected parameters in 2023

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Alkalinity (mg/L $CaCO_3$)	-		308	14 - 74	22	No	Erosion of natural deposits
Aluminum (µg/L)	50 - 200 (1)		309	8 - 57	15	No	Erosion of natural deposits
Barium (mg/L)	2	2	309	0.01 - 0.04	0.02	No	Erosion of natural deposits
Bromide (µg/L)	- (2)		8	8 - 35	20	No	Naturally occurring
Calcium (mg/L)	-		309	5 - 26	7	No	Erosion of natural deposits
Chloride (mg/L)	250		308	10 - 71	19	No	Naturally occurring; road salt
Chlorine Residual, Free (mg/L)	4 (3)		15,217	ND - 1.3	0.5	No	Water additive for disinfection
Chromium (µg/L)	100	100	309	ND - 2	ND	No	Erosion of natural deposits
Color - distribution system (color units - apparent)	-		13,894	3 - 350	7	No	Presence of iron, manganese, and organics in water
Color - entry points (color units - apparent)	15		1,320	3 - 11	6	No	Presence of iron, manganese, and organics in water
Copper (mg/L)	1.3 (4)	1.3	309	ND - 0.053	0.007	No	Corrosion of household plumbing; erosion of natural deposits
Corrosivity (Langelier index)	- (5)		279	-2.77 to -1.19	-2.22	No	
Fluoride (mg/L)	2.2	4	2,166	ND - 0.8	0.7	No	Water additive which promotes strong teeth; erosion of natural deposits
Hardness (mg/L $CaCO_3$)	-		308	17 - 102	26	No	Erosion of natural deposits
Hardness (grains/gallon[US]$CaCO_3$) (6)	-		308	1 - 6	2	No	Erosion of natural deposits
Iron (µg/L)	300 (7)		309	ND - 108	31	No	Naturally occurring
Lead (µg/L)	15 (4)	0	309	ND - 3 (8)	ND	No	Erosion of natural deposits; lab contamination
Magnesium (mg/L)	-		309	1 - 8.8	1.9	No	Erosion of natural deposits

Continued on next page

Detected Conventional Physical and Chemical Parameters (continued)

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Manganese (µg/L)	300 [7]		309	ND - 58	19	No	Naturally occurring
Nitrate (mg/L nitrogen)	10	10	308	0.05 - 0.39	0.13	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
pH (pH units)	6.8 - 8.2 [9]		15,218	6.7- 8.8 [9]	7.3	No	
Phosphate, Ortho- (mg/L)	1 - 4 [9]		12,244	1.2 - 3.6	2.2	No	Water additive for corrosion control
Potassium (mg/L)	-		309	0.5 - 2.5	0.7	No	Erosion of natural deposits
Sodium (mg/L)	NDL [10]		309	8 - 49	13	No	Naturally occurring; road salt; water softeners; animal waste
Specific Conductance (µS/cm)	-		15,214	83 - 482	111	No	
Strontium (µg/L)	-		309	17 - 81	24	No	Erosion of natural deposits
Sulfate (mg/L)	250		308	3 - 35	7	No	Naturally occurring
Temperature (°F)	-		15,218	38 - 83	56	No	
Total Dissolved Solids (mg/L)	500 [1]		308	40 - 245	68	No	Metals and salts naturally occurring in the soil; organic matter
Total Organic Carbon (mg/L)	-		309	0.9 - 2.0	1.6	No	Organic matter naturally present in the environment
Total Organic Carbon - source water (mg/L)	- [2]		8	2.1 - 4.2	3.1	No	Organic matter naturally present in the environment
Turbidity [11] - distribution system (NTU)	5 [12]		13,388	ND - 5.4	1.0 [12]	No	Soil runoff
Turbidity [11] - source water (NTU)	5 [13]		-	-	2.3 [13]	No	Soil runoff
Turbidity [11] - filtered water (NTU)	0.3 [14]		-	-	0.5 [14]	No	Soil runoff
UV 254 (absorbance/cm)	-		360	0.013 - 0.043	0.031	No	Organic matter naturally present in the environment
Zinc (mg/L)	5		309	ND - 0.009	ND	No	Naturally occurring

Continued on next page

Detected Organic Parameters

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Acetone (µg/L)	50		312	ND - 25[15]	ND	No	Occurs naturally and is used in production of paints, varnishes, plastics, adhesives, organic chemicals and alcohol.
Bromochloroacetic Acid (µg/L)	50		304	ND - 2.5	1.4	No	By-product of drinking water chlorination
Bromodichloroacetic Acid (µg/L)	50 [2]		80	1 - 5	3	No	By-product of drinking water chlorination
t-Butyl alcohol (µg/L)	50		312	ND-D[16]	ND	No	Used in dyes, drugs, and explosives
Chlorodibromoacetic Acid (µg/L)	50 [2]		80	ND - 0.6	ND	No	By-product of drinking water chlorination
Diethyl phthalate (µg/L)	50		42	ND - 0.7	ND	No	Plasticizer used in toothbrushes, toys, cosmetics, food packaging and aspirin
Haloacetic Acid 5 (HAA5) (µg/L)	60 [17]		304	6 - 63	45[17]	No	By-product of drinking water chlorination
Haloacetic Acid Brominated (HAA6Br) (µg/L)	- [2]		80	2 - 9	4	No	By-product of drinking water chlorination
Haloacetic Acid 9 (HAA9) (µg/L)	- [2]		80	31 - 82	53	No	By-product of drinking water chlorination
Hexachlorocyclopentadiene (µg/L)	5		20	ND-0.05	ND	No	Used in production of rubber adherents, flame retardants and pesticides
Methyl t-butyl ether (µg/L)	10		312	ND - 1.0[15]	ND	No	Releases from gasoline storage tanks
Methylene chloride (µg/L)	5		311	ND - 3.4	ND	No	Solvent in paint strippers and drug manufacturing, and propellant in aerosols
Total Organic Halogen (µg/L)	-		154	57 - 250	175	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (µg/L)	80 [17]		329	1 - 77	42 [17]	No	By-product of drinking water chlorination

Detected Microbial Parameters

PARAMETER	TT (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	# SAMPLES POSITIVE	AVERAGE	HIGHEST MONTH % POSITIVE	ASSESSMENT TRIGGERED	LIKELY SOURCES IN DRINKING WATER
Total Coliform Bacteria (% of samples positive/month)	5% [18]	0	9,650	-	76	-	3.1%	No	Naturally present in the environment
Heterotrophic Plate Count (CFU/mL)	-	-	11,875	ND - 135	220	ND	-	-	Naturally present in the environment

Continued on next page

Lead and Copper Rule Residential Tap Sampling

PARAMETER	NYSDOH AL	EPA MCLG (Ideal Goal)	90% OF YOUR LEVELS WERE LESS THAN	RANGE	# SAMPLES EXCEEDING AL	EXCEEDANCE	LIKELY SOURCES IN DRINKING WATER
Copper (mg/L)	1.3	1.3	0.183	0.008 - 0.374	0 out of 341	No	Corrosion of household plumbing
Lead (µg/L)	15	0	11	ND - 200	20 out of 341	No	Corrosion of household plumbing

Cryptosporidium and *Giardia* Source Water Sampling [19]

PARAMETER	EPA MCLG (Ideal Goal)	RESERVOIR	# SAMPLES	# SAMPLES POSITIVE	RANGE	LIKELY SOURCES IN DRINKING WATER
Cryptosporidium (oocysts/50L)	0	Kensico	52	6	0 - 3	Animal fecal waste
		Hillview	52	2	0 - 1	
		Croton	4	0	0	
Giardia (cysts/50L)	0	Kensico	52	25	0 - 10	Animal fecal waste
		Hillview	52	5	0 - 2	
		Croton	4	2	0 - 1	

UNITS AND ABBREVIATIONS

$CaCO_3$ = calcium carbonate

CFU/mL = colony forming units per milliliter

/cm = per centimeter

D = parameter is detected

°F = degrees Fahrenheit

µg/L = micrograms per liter (10^{-6} grams per liter)

µS/cm = microsiemens per centimeter

mg/L = milligrams per liter (10^{-3} grams per liter)

MPN/100mL = most probable number per 100 mils

ND = parameter is not detected

NDL = no designated limits

NTU = nephelometric turbidity units

/50L = per 50 liters

DEFINITIONS

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

Maximum Contaminant Level (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 (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.

Maximum Residual Disinfectant Level (MRDL):
The highest level of a disinfectant allowed in drinking water. The 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 contamination.

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

90th Percentile Value:
The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below the value. The 90th percentile is equal to or greater than 90 percent of the lead and copper values detected at your water system.

Not Detected Parameters

This table lists all parameters monitored for but not detected in 2023

Conventional Physical, Chemical and Microbial Parameters:

Antimony, Arsenic, Asbestos [20], Beryllium, Cadmium, Cyanide, *E. coli*, Gross alpha [20], Mercury, Nickel, Nitrite, Radium 228 [20], Selenium, Silver, Thallium, Uranium [20]

Principal Organic Contaminants:

Benzene, Bromobenzene, Bromochloromethane, Bromomethane, tert-Butylbenzene, n-Butylbenzene, sec-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 2,2-Dichloropropane, 1,2-Dichloropropane, 1,3-Dichloropropane, 1,1-Dichloropropene, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, p-Isopropyltoluene, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, m,p-Xylene, o-Xylene

Specified Organic Contaminants:

Di(2-ethylhexyl)adipate, Alachlor, Aldicarb (Temik), Aldicarb sulfone, Aldicarb sulfoxide, Aldrin, Atrazine, Benzo(a)pyrene, Butachlor, Carbaryl, Carbofuran (Furadan), Chlordane, 2,4-D, Dalapon, 1,2-Dibromo-3-chloropropane, Di(2-ethylhexyl)phthalate, Dicamba, Dieldrin, Dinoseb, 1,4-Dioxane, Diquat, Endothall, Endrin, Ethylene dibromide (EDB), Glyphosate, Heptachlor epoxide, Heptachlor, Hexachlorobenzene, 3-Hydroxycarbofuran, Lindane, Methomyl, Methoxychlor, Metolachlor, Metribuzin, Oxamyl (Vydate), Pentachlorophenol, Perfluorooctanesulfonic acid (PFOS), Piclorам, Polychlorinated biphenyls (PCBs), PCB 1016 Aroclor, PCB 1221 Aroclor, PCB 1232 Aroclor, PCB 1242 Aroclor, PCB 1248 Aroclor, PCB 1254 Aroclor, PCB 1260 Aroclor, Propachlor, Simazine, 2,3,7,8-TCDD (Dioxin), Toxaphene, 2,4,5-TP (Silvex), Vinyl chloride

Unspecified Organic Contaminants:

Acenaphthene, Acenaphthylene, Acetochlor, Acifluorfen, Allyl chloride, Ametryn, t-Amyl ethyl ether, tert-Amyl methyl ether, Anthracene, Atraton, Propoxur (Baygon), Bentazon, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Butylbenzylphthalate, alpha-BHC, beta-BHC, delta-BHC, Bromacil, Bromoform, 1,3-Butadiene, tert-Butyl ethyl ether, Butylate, Butylated hydroxytoluene (BHT), Caffeine, Carbon Disulfide, alpha-Chlordane, gamma-Chlordane, trans-Chlordane, Chlorfenvinphos, Chlorobenzilate, 2-Chlorobiphenyl, 4-Chlorobiphenyl, 1-Chlorobutane, Chlorodifluoromethane, 9-Chlorohexadecafluoro-3-oxanonesulfonic acid, Chloroneb, Chlorothalonil (Draconil, Bravo), Chlorpropham, Chlorpyrifos (Dursban), Chrysene, Cyanazine, Cycloate, DCPA(Dacthal), 2,4-DB, 2,4-DDD, 4,4'-DDD, 2,4-DDE, 4,4'-DDE, 2,4-DDT, 4,4'-DDT, DEET, delta-HCH, Diazinon, Dibenz[a,h]anthracene, Dibromoacetic acid, 3,5-Dichlorobenzoic acid, 2,4'-Dichlorobiphenyl, Dichlorprop, Dichlorvos (DDVP), Diethyl ether, Di-isopropyl ether, Diisopropyl methylphosphonate, Dimethipin, Dimethoate, Dimethylphthalate, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Diphenamid, Disulfoton, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin aldehyde, EPTC, Ethion, Ethoprophos, Ethyl methacrylate, N-ethyl Perfluorooctanesulfonamidoacetic acid, Etridiazole, Fenarimol, Fluoranthene, Fluorene, Fluridone, 2,2',3,4,4',5,5'-Heptachlorobiphenyl, 2,2',3,4,4',5-Hexachlorobiphenyl, 2,2',3,4',5',6-Hexachlorobiphenyl, 2,2',4,4',5,5'-Hexachlorobiphenyl, Hexachloroethane, alpha-HCH, beta-HCH, gamma-HCH, Hexazinone, Indeno[1,2,3-cd]pyrene, Isophorone, Malathion, Methiocarb, Methyl acetate, Methyl iodide, Methyl parathion, N-methyl Perfluorooctanesulfonamidoacetic acid, Mevinphos, MGK-264 isomer a & b, Molinate, Naphthalene, Napropamide, Di-n-Butylphthalate, Nitrofen, Di-N-octylphthalate, trans-Nonachlor, Norflurzon, Oxyfluorfen, Paraquat, Parathion, Pebulate, Pendimethalin, 2,3,3',4',6-Pentachlorobiphenyl, 2,3',4,4',5-Pentachlorobiphenyl, Pentachloroethane, cis-Permethrin, trans-Permethrin, Permethrin (mixed isomers), Phenanthrene, Phorate, Phosphamidon, Profenofos, Prometon, Prometryn, Pronamide, Propazine, Pyrene, Simetryn, 2,4,5-T, Tebuconazole, Tebuthiuron, Terbacil, Terbuthylazine, Terbutryn, 2,2',3,5'-Tetrachlorobiphenyl, 2,2',5,5'-Tetrachlorobiphenyl, 2,3',4',5-Tetrachlorobiphenyl, Tetrachlorovinphos, Tetrahydrofuran, Thiobencarb, Triademefon, Tribufos, 2,4,4'-Trichlorobiphenyl, 2,2',5-Trichlorobiphenyl, Trifluralin, Vernolate, Vinclozolin

Fourth Unregulated Contaminant Monitoring Rule (UCMR4) [2] Parameters:

Anatoxin-a, 1-Butanol, Butylated hydroxyanisole, Cylindrospermopsin, Germanium Total ICAP/ MS, 2-Methoxyethanol, Monobromoacetic acid, 2-Propen-1-ol, Quinoline, o-Toluidine, Total Microcystins, Tribromoacetic acid

Fifth Unregulated Contaminant Monitoring Rule (UCMR5) [21] Parameters:

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS), 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS), 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS), 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS), 4,8-Dioxa-3H-perfluorononanoic acid (ADONA), 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS), Hexafluoropropylene Oxide Dimer Acid (HFPO-DA), Lithium, Nonafluoro-3,6-dioxaheptanoic acid (NFDHA), Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA), Perfluoro-3-methoxypropanoic acid (PFMPA), Perfluoro-4-methoxybutanoic acid (PFMBA), Perfluorobutanesulfonic acid (PFBS), Perfluorobutanoic acid (PFBA), Perfluorodecanoic acid (PFDA), Perfluorododecanoic acid (PFDoA), Perfluoroheptanesulfonic acid (PFHpS), Perfluoroheptanoic acid (PFHpA), Perfluorohexanesulfonic acid (PFHxS), Perfluorohexanoic acid (PFHxA), Perfluorononanoic acid (PFNA), Perfluorooctanesulfonic acid (PFOS), Perfluorooctanoic acid (PFOA), Perfluoropentanesulfonic acid (PFPeS), Perfluoropentanoic acid (PFPeA), Perfluoroundecanoic acid (PFUnA), N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA), N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA), Perfluorotetradecanoic acid (PFTA), Perfluorotridecanoic acid (PFTrDA)

2023 MONITORING DATA FOOTNOTES

(1) EPA Secondary MCL: NYSDOH has not set an MCL for this parameter.

(2) Monitored for under the Fourth Unregulated Contaminant Monitoring Rule (UCMR4) in 2018 and 2019. UCMR4 included source water monitoring for bromide and total organic carbon; EPA has not established an MCL for these parameters.

(3) Value represents MRDL, which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. The MRDL is enforceable in the same manner as an MCL and is the calculated running annual average. Data presented are the range of individual sampling results and the highest of the four quarterly running annual averages.

(4) Action Level (not an MCL) measured at-the-tap. The data presented in this table were collected from sampling stations at the street curb. For at-the-tap monitoring, see the Lead and Copper Rule Residential Tap Sampling table.

(5) A Langelier Index of less than zero indicates corrosive tendencies.

(6) Hardness of up to 3 grains per gallon is considered soft water; between 3 and 9 is moderately hard water.

(7) If iron and manganese are present, the total concentration of both should not exceed 500 μg/L.

(8) Lead was only detected in one sample on 12/5/23 at site 1S07 (Highbridge, 10452) but likely due to lab contamination.

(9) NYSDOH established Optimal Water Quality Parameters (OWQP) under the Lead and Copper Rule which includes a range for pH and ortho-phosphate which are presented here. The reported average value for pH is the median value. One low pH value of 6.7 was collected from site 3ISL3 (Ward's Island, 10035) on 1/12/23. The pH was above 8.2 in 3 samples collected from site 1SCHA (Van Cortlandt Village, 10463): 8.3 on 2/13/23, 8.4 on 2/14/23, and 8.4 on 2/15/23, one sample from site 77650 (Queens Village, 11429) 8.4 on 10/20/23, and one sample from site 3ISL4 (Randall's Island, 10035) 8.8 on 3/9/23.

(10) Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

(11) Turbidity is a measure of cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality, because high turbidity can hinder the effectiveness of disinfection, and because it is a good indicator of the effectiveness of our filtration system.

(12) This MCL for turbidity is the monthly average rounded off to the nearest whole number. Data presented are the range of individual sampling results and the highest monthly average from distribution sites which was in July 2023.

(13) This MCL for turbidity is on individual readings taken every four hours at the unfiltered Catskill/Delaware source water entry point. Value presented is the highest individual sampling result which occurred on 6/30/23.

(14) This is a TT (performance standard) for the Croton Filtration Plant that > 5% of measurements/month must not exceed. The value presented is the highest single combined filter effluent turbidity measurement which occurred on 10/16/23. In 2023, 99.999% of turbidity results were <0.3 NTU.

(15) Acetone and Methyl t-butyl ether were only detected in one sample on 7/5/23 at site 26850 (Seagate, 11224).

(16) t-Butyl alcohol was only detected in one sample on 5/2/23 at site 77650 (Queens Village, 11429) but believed to be lab contamination. Results are only reported as detected (D) or not detected (ND).

(17) The MCLs for HAA5 and TTHMs are the calculated locational running annual average (LRAA). The data in the Range column are the minimum and maximum values of all sample sites monitored in the distribution system whether for compliance purposes or not. The values in the Average column are the highest LRAA.

(18) This is a TT that triggers a Level 1 assessment if exceeded.

(19) DEP collected samples of water leaving New Croton Reservoir and Kensico Reservoir, prior to chlorination and UV disinfection, and leaving Hillview Reservoir, prior to secondary disinfection with chlorine, and analyzed using EPA Method 1623.1.

(20) NYSDOH allows monitoring for these contaminants less frequently than once per year. These data, though representative, are from 2020 except for radium 228 which were from 2021.

(21) Monitoring for the Fifth Unregulated Contaminant Monitoring Rule (UCMR5) commenced in the 4th quarter of 2023.

CONTACT INFORMATION

Public Water System Identification Number (PWSID) NY7003493

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
Rohit T. Aggarwala, Commissioner // 718-595-3000 // nyc.gov/dep
59-17 Junction Blvd, Flushing, NY 11373

NEW YORK CITY WATER BOARD
Visit nyc.gov/waterboard for a list of upcoming meetings and information about opportunities to participate in decisions that affect water quality.

CONTAMINANTS QUESTIONS
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 1-800-426-4791.

***CRYPTOSPORIDIUM* AND *GIARDIA* QUESTIONS**
DOHMH Bureau of Communicable Diseases // 347-396-2600

CUSTOMER BILLING QUESTIONS
DEP Customer Service // 718-595-7000 // nyc.gov/dep

LEAD IN DRINKING WATER QUESTIONS
DEP Lead Unit // 718-595-5364 // nyc.gov/dep/leadindrinkingwater

HEALTH QUESTIONS (WATER SUPPLY-RELATED)
DOHMH // Call 311 or 212-NEW YORK (639-9675) // nyc.gov/apps/311
NYSDOH Bureau of Water Supply Protection // 518-402-7650 // health.ny.gov

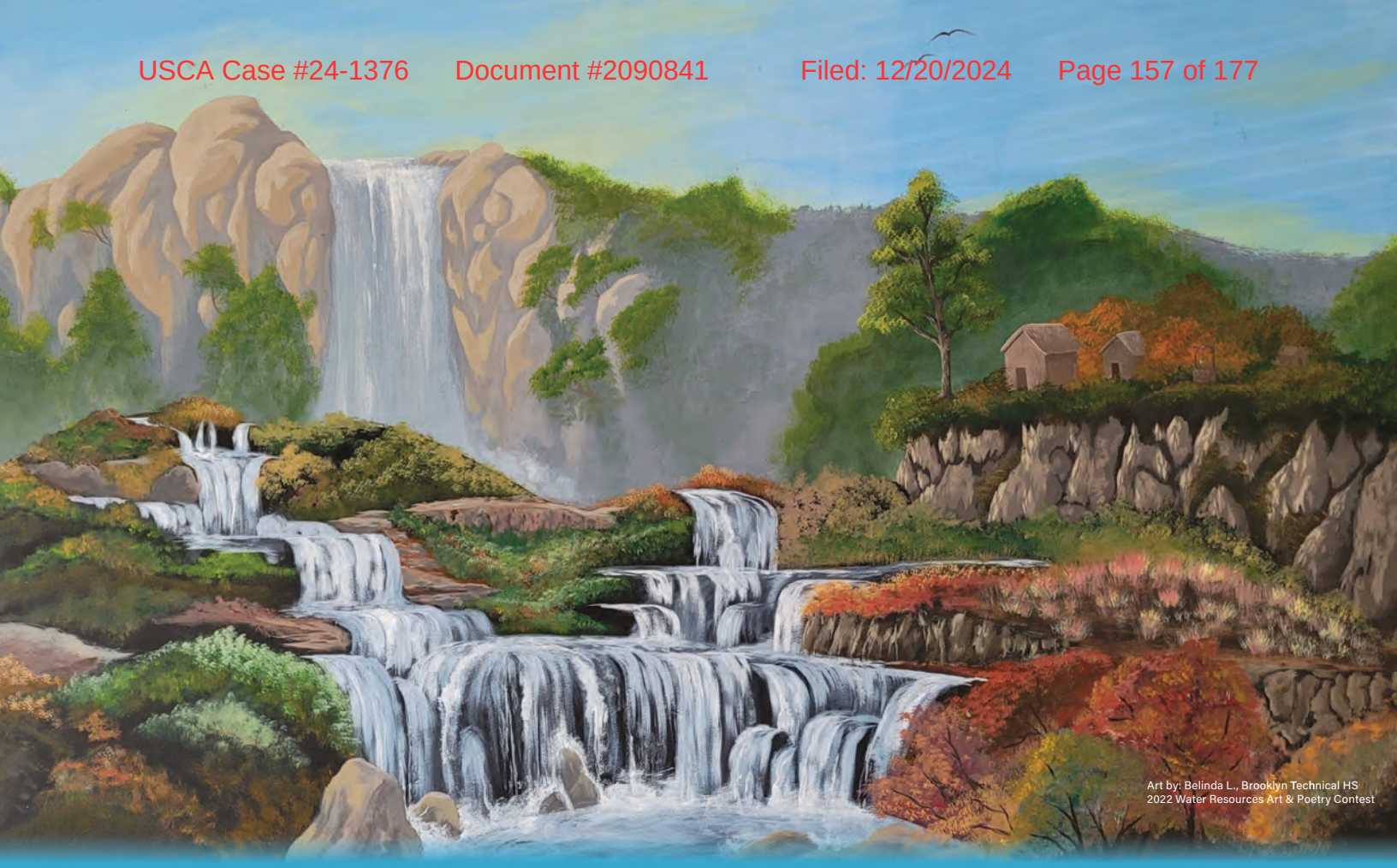
REPORT UNUSUAL COLOR, TASTE OR ODOR OF DRINKING WATER
Call 311 or 212-NEW YORK (639-9675) // nyc.gov/apps/311

REPORT POLLUTION, CRIME, OR TERRORISM IN THE WATERSHED
DEP Police and Security // 888-H2O-SHED (426-7433) // nyc.gov/dep

REQUEST ADDITIONAL COPIES OF THIS REPORT OR VIEW REPORT ONLINE
Call 311 or 212-NEW YORK (639-9675) // nyc.gov/waterqualityreport

TTY SERVICES
Call 212-504-4115

TEXT 311
311-692



This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

Este reporte contiene información muy importante sobre el agua que usted toma. Haga que se la traduzcan o hable con alguien que la entienda.

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

Rapò sa a gen enfòmasyon ki enpòtan anpil sou dlo w'ap bwè a. Fè tradwi-l pou ou, oswa pale ak yon moun ki konprann sa ki ekri ladan-l.

Ten raport zawiera bardzo istotną informacje o twojej wodzie pitnej. Przetłumacz go albo porozmawiaj z kimś kto go rozumie.

В этом материале содержится важная информация относительно вашей питьевой воды. Переведите его или поговорите с кем-нибудь из тех, кто понимает его содержание.

這個報告中包含有關你的飲用水的重要信息 。 請將此報告翻譯成你的語言或者詢問懂得這份報 告的人 。

이 보고서는 귀하의 식수에 관한 매우 중요한 정보를 포함하고 있습니다. 이 정보에 대해 이해하는 사람에게 그 정보를 번역하거나 통역해 받으십시오.

এই প্রতিবেদনে আপনার পানীয় জল সম্পর্কে গুরুত্বপূর্ণ তথ্য রয়েছে

يتضمن هذا التقرير معلومات هامة حول مياه الشرب الخاصة بك. ترجمه أو تحدث مع شخص يفهمه.

یہ رپورٹ آپ کے پینے کے پانی کے بارے میں اہم معلومات پر مشتمل ہے۔ اس کا ترجمہ کریں یا انسے بات کریں جو یہ رپورٹ سمجھتے ہیں۔

NYC Environmental Protection

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NEW YORK CITY DRINKING WATER SUPPLY AND QUALITY REPORT 2022

NYC Environmental Protection

Eric Adams
Mayor

Rohit T. Aggarwala
Commissioner

NEW YORK CITY'S WATER SUPPLY SYSTEM

Dear Friends:

On behalf of my nearly 6,000 colleagues at the Department of Environmental Protection (DEP), I am proud to announce that New York continues to deliver one billion gallons of some of the best tap water in the world to more than 9.8 million New Yorkers each and every day. Drink it in New York – the beauty of New York City water is that it tastes great too!

Here in New York we are fortunate to have a water supply that is well protected and operated by dedicated scientists, engineers, and other highly skilled professionals who have earned admiration among their colleagues throughout the world. DEP continuously monitors the water in the distribution system, upstate reservoirs, feeder streams, and wells that are potential sources for New York City's drinking water supply. We have made substantial investments to upgrade and rehabilitate our water supply infrastructure and protect the quality of our drinking water, with multi-billion dollar projects currently taking place at the Catskill and Delaware aqueducts, among others. More than $1 billion has also been committed to administering a number of watershed protection and pollution prevention programs to maintain the high quality of our drinking water at the source.

This report illustrates that New York City's drinking water continued to be of excellent quality in 2022. DEP scientists collected 43,900 samples throughout our watershed and reservoir system, and from nearly 1,000 street-side sampling stations in every neighborhood across the city, analyzing those samples 577,300 times at our four water quality laboratories. Robotic monitoring stations on our reservoirs and in our streams provided another 2.7 million tests to ensure DEP was sending the best-quality water to New York City at all times.

Sincerely,

Rohit T. Aggarwala, Commissioner

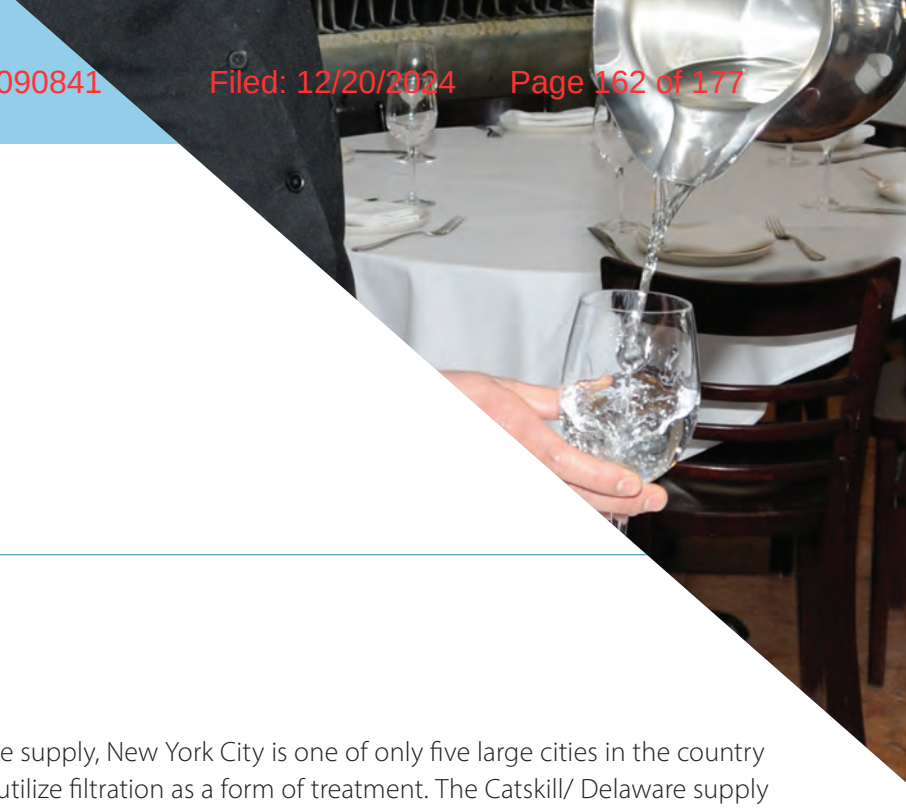
NYC Chief Climate Officer

NEW YORK CITY'S WATER SUPPLY SYSTEM

New York City's water supply system provides more than one billion gallons of safe drinking water every day to more than 8.8 million residents of New York City and one million people living in the counties of Westchester, Putnam, Orange, and Ulster. In 2022, we delivered 100 million gallons per day to 70 communities and institutions outside NYC. In all, this system provides nearly half the population of New York State with high-quality drinking water.

New York City gets its drinking water from 19 reservoirs and three controlled lakes spread across a nearly 2,000-square-mile watershed. The watershed is located upstate in portions of the Hudson Valley and Catskill Mountains that are as far as 125 miles north of the city. New York City's water supply system is composed of two primary surface water supplies called the Catskill/Delaware and Croton. The City also has a permit to operate a groundwater supply in southeast Queens, although water from that system has not been delivered to customers in many years.

In 2022, New York City received a blend of drinking water from the Catskill/Delaware and Croton supplies. The Catskill/Delaware provided approximately 97.5 percent of the water, and approximately 2.5 percent was supplied by Croton. An estimated 16.4 percent of the water supply was lost. This number does not solely reflect water leaks and wastage, but rather metering calculations that are currently being updated with our new billing system.



New York City's water supply system provides more than one billion gallons of safe drinking water every day.

TREATING OUR DRINKING WATER

CATSKILL/DELAWARE SUPPLY

Due to the very high quality of our Catskill/Delaware supply, New York City is one of only five large cities in the country with a surface drinking water supply that does not utilize filtration as a form of treatment. The Catskill/ Delaware supply operates under a filtration waiver, referred to as the "Filtration Avoidance Determination" (FAD), and the water from this supply is treated using two forms of disinfection to reduce microbial risk.

Water is disinfected with chlorine, a common disinfectant added to kill germs and stop bacteria from growing on pipes, and then with ultraviolet (UV) light at the Catskill/Delaware UV Disinfection Facility. The facility, located in Westchester County, is the largest of its kind in the world and is designed to disinfect more than two billion gallons of water per day. At this facility, exposure to UV light inactivates potentially harmful microorganisms without changing the water.

DEP also adds food grade phosphoric acid, sodium hydroxide, and fluoride to the water before sending it into distribution. Phosphoric acid is added because it creates a protective film on pipes that reduces the release of metals, such as lead, from service lines and household plumbing. Sodium hydroxide is added to raise the pH, which reduces corrosion of household plumbing. Fluoride is added to improve dental protection, and is effective in preventing cavities, at a federally approved level of 0.7 mg/L. During 2022 only 0.35 percent of the water produced by Catskill/Delaware supply was not fluoridated.

CROTON SUPPLY

The Croton supply is filtered at the Croton Water Filtration Plant, located underground in the Bronx. The plant can treat up to 290 million gallons of drinking water each day, which helps to ensure a large enough supply of water for the city to withstand droughts, periodically shut down other parts of the water supply, and respond to the potential effects of climate change. The Croton Water Filtration Plant first began operating in May 2015.

Once water arrives at the filtration plant it undergoes treatment to remove impurities. The treatment processes include coagulation, dissolved air flotation, filtration, and disinfection. During coagulation, chemicals are added to untreated water, causing any particulates to bunch together and become a mass of particles called floc. Then injected air bubbles float the floc to the top where it is skimmed off using a process called dissolved air flotation. Finally, the water flows through a filter bed removing any remaining particles. Just like the Catskill/ Delaware supply, Croton water is disinfected with chlorine and UV light to protect against potentially harmful microorganisms, and is treated with food grade phosphoric acid, sodium hydroxide, and fluoride. In 2022, 100 percent of the water produced by the plant was fluoridated.

DEP Scientists performed over 376,700 analyses on 32,300 samples from the distribution system in 2022

TESTING FOR QUALITY

DRINKING WATER SAMPLING AND MONITORING

DEP monitors the water in the distribution system, upstate reservoirs and feeder streams, and wells that are potential sources for New York City's drinking water supply. We continuously sample and conduct analyses for numerous water quality parameters, including microbiological, chemical, and physical measurements, throughout the watershed as the water enters the distribution system, and at nearly 1,000 water quality sampling stations throughout New York City.

In 2022, DEP performed more than 376,700 analyses on 32,300 samples from the distribution system, meeting all state and federal monitoring requirements. These data are summarized in tables starting on page 11. Additionally, DEP performed more than 200,600 analyses on 11,600 samples from the upstate reservoir watersheds and took more than 2.7 million robotic monitoring measurements to support FAD watershed protection programs and to optimize water quality.

REGULATION 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 pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants.

To ensure that tap water is safe to drink, the New York State Department of Health (NYSDOH) and the United States Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The NYSDOH and the federal Food and Drug Administration's (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The presence of contaminants does not necessarily indicate that water poses a health risk. These regulations also establish the minimum amount of testing and monitoring that each system must undertake to ensure that the tap water is safe to drink.

Visit **epa.gov/safewater** or **health.ny.gov** for more information about drinking water.

PROTECTING OUR WATER AT THE SOURCE

FILTRATION AVOIDANCE DETERMINATION (FAD)

DEP has funded and administered several watershed protection and pollution prevention programs to maintain the high quality of our drinking water, since 1993. These science-based strategies are designed to protect New York City's drinking water at its source by keeping pollution out of our reservoirs and the streams, creeks, and rivers that feed them.

NYSDOH issued mid-term revisions to the 2017 FAD on December 29, 2022, that allow DEP to continue operating the Catskill/Delaware supply without filtration through at least 2027. DEP has committed an estimated $1 billion to comply with the FAD, which goes towards our watershed programs that conserve watershed lands, upgrade wastewater infrastructure, implement clean water strategies on watershed farms, and manage streams, forests, and other natural resources that affect water quality.

SOURCE WATER ASSESSMENT PROGRAMS

Federal regulations require states to develop and implement source water assessment programs to identify the areas that supply public tap water, inventory contaminants, assess water system susceptibility to contamination, and inform the public of the results. The states are given a great deal of flexibility on how to implement source water assessment programs. These assessments are created using available information to help estimate the potential for source water contamination. Because of DEP's extensive watershed protection and pollution prevention programs, NYSDOH does not find it necessary to perform a source water assessment on the New York City water supply.

DEP Scientist working on Robotic water monitoring buoy at the Ashokan Reservoir

The Delaware Aqueduct Bypass Tunnel is the largest repair project in the 180-year history of New York City's water supply system

CAPITAL UPGRADES

DEP has continued to make substantial investments to upgrade and rehabilitate our water supply infrastructure, which stretches more than 125 miles from Midtown Manhattan to the northern Catskills, protecting the quality of our drinking water at its source. Infrastructure construction milestones reached in 2022, included preparatory work for the largest capital repair project in DEP history: the Delaware Aqueduct's Rondout-West Branch Bypass Tunnel 600 feet below the Hudson River near Newburgh. That new 2 ½ mile long tunnel section will bypass a leaking section of the 80-year-old aqueduct and is expected to be connected between fall and spring 2023-24.

Additionally, DEP staff and consulting engineers completed the environmental review process for the upcoming Hillview Reservoir Improvement Project in Yonkers, a major overhaul of the water treatment and chemical storage facilities as well as all the aging water management infrastructure at the reservoir. Hillview, at more than 100 years old, plays an essential role as the balancing reservoir that ensures the system provides water as consumption changes during the course of the day.

About 15 miles to the north of Hillview, skilled workers at the Kensico Reservoir completed a shoreline stabilization project adjacent to the primary treatment facilities for the vast majority of the City's drinking water supply. This FAD required project, completed on time and under budget, included replacing 1,400 linear feet of shoreline with carefully placed rocks commonly installed to protect shorelines from scouring and erosion. Projects like this, expected to be expanded in coming years, will stabilize and strengthen fragile shorelines located near water supply against severe storms of the future.

DEP engineers and scientists also began initial environmental reviews for the upcoming Ashokan Century Project (ACP). Expected to be the largest public works project in the Catskills in more than half a century, the ACP includes rehabilitating infrastructure in and around the Ashokan Reservoir in Ulster County – placed into service in 1915 -- including dams, dikes, headworks, spillways and the Dividing Weir Bridge across the middle of the 12-mile-long reservoir.

DEP also continues to invest in its watershed protection programs, a worldwide model for preserving the quality of water at its source. In 2022, DEP stabilized the Batavia Kill stream that feeds the Schoharie Reservoir. The large and complex project restored a section of stream that has long been the largest single source of sediment in the watershed of that reservoir. In addition to protecting the quality of NYC's water supply, the work enhanced fish habitat and recreational opportunities in the region.

CONSERVING OUR SUPPLY

Although New York City has grown by more than 1.3 million people since 1980, demand for water has dropped by approximately 35 percent—making it one of the most water-efficient large cities in the country.

The average single-family household in New York City uses approximately 70,000 gallons of water each year at a cost of $4.30 per 100 cubic feet of water (748 gallons), or about $402 a year. Since nearly all customers also receive wastewater collection and treatment services, which cost about $639, the combined annual water and sewer charge for the typical New York City household using 70,000 gallons per year is $1,041, calculated at fiscal year 2023 rates, effective July 1, 2022.

Advances in technology have played a key role in the drop of water consumption, from the replacement of thousands of inefficient toilets through DEP's toilet replacement program, to an automated leak detection program, which helps our customers save both money and water by alerting homeowners to unusual spikes in water consumption. DEP has also partnered with other city agencies, colleges, and businesses to help conserve water by installing more than 400 spray shower timers in NYC Parks playgrounds, 34,000 efficient bathroom fixtures in 402 New York City public schools, more than 1,600 efficient bathroom fixtures in City-owned buildings including a hospital, and a water reuse station at the Fire Department of the City of New York's (FDNY) Fire Training Academy on Randall's Island, which includes a 40,000 gallon underground water storage tank used for calibrating equipment on pumper apparatus.

These, and other recent investments, have reduced overall demand for water by more than 16.4 million gallons per day. We plan to achieve a total savings of 20 million gallons per day through new and ongoing initiatives, including a water recirculation project in Central Park, a valve replacement project in Prospect Park, additional New York City public school fixture retrofits, and more.

DOs & DON'Ts of Water Conservation

In or out of a drought, every New Yorker can save hundreds of gallons of water each week by following these simple water-saving tips.

BATHROOM

- ✔ Do take short showers and save 5 to 7 gallons a minute.
- ✔ Do fill the tub halfway and save 10 to 15 gallons.
- ✔ Do install water-saving toilets, shower heads and faucet aerators. Place a plastic bottle filled with water in your toilet tank if you can't switch to a low flow toilet.
- ✗ Don't run the water while shaving, washing your hands or brushing your teeth. Faucets use 2 to 3 gallons a minute.
- ✗ Don't use the toilet as a wastebasket, and don't flush it unnecessarily.

OUTDOORS

- ✔ Do use a self-closing nozzle on your hose.
- ✗ Don't water your sidewalk or driveway–sweep them clean.
- ✗ Don't over water your lawn or plants. Water before 9 a.m. or after 7 p.m.

KITCHEN & LAUNDRY

- ✔ Do run the dishwasher and washing machine only when full. Save even more by using the short cycle.
- ✔ Do install faucet aerators.
- ✗ Don't let the water run while washing dishes. Kitchen faucets use 2 to 3 gallons a minute. Filling a basin only takes 10 gallons to wash and rinse.
- ✗ Don't run water to make it cold. Have it chilled in the refrigerator, ready to drink.

EVERYWHERE

- ✔ Do repair leaky faucets and turn taps off tightly. A slow drip wastes 15 to 20 gallons each day.
- ✗ Don't open fire hydrants.

TO LEARN MORE, CALL 311.

CRYPTOSPORIDIUM AND *GIARDIA*

DEP maintains a comprehensive program to monitor in source waters and key streams for the presence of *Cryptosporidium* and *Giardia*, microscopic organisms that can cause disease. Disease and syndromic surveillance continue to indicate that there have been no outbreaks of the diseases they cause, cryptosporidiosis and giardiasis, attributed to consuming tap water in New York City. *Cryptosporidium* and *Giardia* data are presented on page 14 of this report.

Federal and state law requires all water suppliers to notify their customers about the potential risks from *Cryptosporidium* and *Giardia*. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Some people may be more vulnerable to disease causing microorganisms, or pathogens in drinking water than the general population. Immunocompromised 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 individuals, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia*, and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

HILLVIEW RESERVOIR CONSENT JUDGEMENT

The Hillview Reservoir is the final stop for drinking water from the Catskill/Delaware System before it enters the city's distribution system. The City and DEP entered into a Consent Decree and Judgement with the United States and New York State, effective May 15, 2019, which sets forth a schedule of compliance for the City to cover the Hillview Reservoir as required by the Long Term 2 Enhanced Surface Water Treatment Rule (40 C.F.R §141.714). DEP and the City complied with all 2022 commitments due under the Decree.

HAA5 NOTICE OF VIOLATION

On February 25, 2022, DEP received a Notice of Violation (NOV) (ID#2022001) for the exceedance of the MCL for haloacetic acids (HAA5), which is based on the average of the four most recent quarterly samples at a particular monitoring location, called the Locational Running Annual Average (LRAA). Each calendar quarter, drinking water samples are collected at locations throughout the city for HAA5 that are used to determine compliance with the standard of 60 micrograms per liter. One site (50250, Grymes Hill, 10301) out of 20 sampled on February 1, 2022, had an LRAA that exceeded the standard (see table on page 13, footnote (15, 16) on page 16). This was the second consecutive quarter of an HAA5 MCL exceedance at this site. DEP took a multi-step approach to correct this exceedance, including adjustments to the operation of our reservoir system, a reduction in the amount of chlorine used, and adjustments to our in-city distribution system. As a result, all sites were in compliance the rest of 2022.

The likely cause of the elevated level of HAA5 was the intense rainfalls during Tropical Storms Henri and Ida in the fall of 2021, which washed organic material into the upstate reservoirs. Haloacetic acids are formed when organic material in the water combines with chlorine, which is the most commonly used disinfectant in New York State. Chlorine is used as a disinfectant to kill bacteria and viruses that could cause illnesses; and is therefore beneficial to public health. The amount of HAA5 in drinking water can vary, depending on the amount of natural organic material in the source water, the amount of chlorine added, the temperature and a variety of other factors. The following paragraph provides a general summary of the health effects of haloacetic acids, which may occur at much higher exposure levels than what could result through normal use of the water.

Some studies suggest that people who drank chlorinated drinking water containing disinfection by-products (including haloacetic acids) for long periods of time (e.g., 20 to 30 years) may have an increased risk for cancer. However, how long and how frequently people actually drank the water, and how much haloacetic acids the water contained is not known for certain. Therefore, the evidence from these studies is not strong enough to conclude that the observed increased risk for cancer is due to haloacetic acids, other disinfection by-products, or some other factor. Studies of laboratory animals show that the two haloacetic acids, dichloroacetic acid and trichloroacetic acid, can cause cancer following exposure to high levels over their lifetimes. Dichloroacetic acid and trichloroacetic acid are also known to cause other effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, and nervous system and on their ability to bear healthy offspring. The risks for adverse health effects from haloacetic acids in drinking water are small compared to the risk for illness from drinking inadequately disinfected water.

LEAD IN DRINKING WATER: FREQUENTLY ASKED QUESTIONS

IS THERE LEAD IN MY DRINKING WATER?

New York City's award-winning tap water is delivered virtually lead-free through 7,000 miles of lead-free aqueducts, tunnels, and water mains in the city's water supply system. However, homes built prior to 1961 may have lead service lines (which connect your house to the city's water main in the street), and some homes, regardless of the year they were built, could have household plumbing and internal fixtures that contain lead. Although New York City takes extensive steps to protect water in homes that may have lead in their plumbing, lead from plumbing may still be released into a home's drinking water. Lead levels at your home may be higher than at other homes in the community because of materials used in your home's plumbing. DEP is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

HOW CAN I FIND OUT IF I HAVE A LEAD SERVICE LINE?

Visit **nyc.gov/leadfree** to view an interactive map. This map offers historical information largely based on third-party plumbing records, supplemented in some cases by information gathered during inspections.

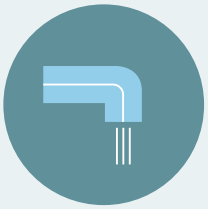
HOW CAN I TEST THE WATER IN MY HOME?

DEP offers free lead test kits to all New York City residents. Call 311 or visit **nyc.gov/apps/311** to request a free lead test kit. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at **epa.gov/safewater/lead**.

WHAT ARE THE HEALTH EFFECTS OF LEAD?

Exposure to lead can cause serious health problems, especially for pregnant women, infants, and young children. For more information, visit **nyc.gov/lead**.

HOW CAN I LIMIT MY LEAD EXPOSURE?

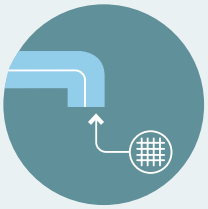


RUN YOUR TAP

for 30 seconds to 2 minutes before using water for drinking or cooking, when your water has been sitting for several hours.

Use Cold Water

for cooking, drinking, or preparing infant formula. Hot tap water is more likely to contain lead and other metals.



Remove & Clean

the faucet screen monthly (also called an aerator), where small particles can get trapped.

Hire

a licensed plumber to identify and replace plumbing fixtures and/or service line that contain lead.

DEP Scientists continuously sample and conduct analyses for hundreds of water quality parameters

HOW TO READ THE NEW YORK CITY 2022 DRINKING WATER QUALITY TESTING RESULTS

The following section of this report compares the quality of your tap water to federal and state standards for each parameter (if applicable). The monitoring results show that New York City's drinking water continues to be of excellent quality.

The following tables reflect the compliance monitoring results for all regulated and non-regulated parameters, the number of samples collected, the range of values detected, the average of the values detected, and the possible sources of the parameters, unless otherwise footnoted. The monitoring frequency of each parameter varies and is parameter specific. Data presented are for the Catskill/Delaware and Croton supplies, which were the only sources of water in 2022.

The table on page 15 represents those parameters monitored for, but not detected in any sample. Most of our data are representative of 2022 testing; concentrations of parameters or contaminants do not change frequently.

THE NEW YORK CITY 2022 DRINKING WATER QUALITY TESTING RESULTS

Detected Conventional Physical and Chemical Parameters

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Alkalinity (mg/L $CaCO_3$)	-		308	15 - 70	21	No	Erosion of natural deposits
Aluminum (μg/L)	50 - 200 (1)		308	7 - 78	19	No	Erosion of natural deposits
Barium (mg/L)	2	2	308	0.01 - 0.04	0.02	No	Erosion of natural deposits
Bromide (μg/L)	- (2)		8	8 - 35	20	No	Naturally occurring
Calcium (mg/L)	-		308	5 - 26	7	No	Erosion of natural deposits
Chloride (mg/L)	250		308	10 - 80	15	No	Naturally occurring; road salt
Chlorine Residual, Free (mg/L)	4 (3)		15,240	ND - 1.2	0.6 (3)	No	Water additive for disinfection
Chromium (μg/L)	100		308	ND - 3	ND	No	Erosion of natural deposits
Color - distribution system (color units - apparent)	-		13,413	3 - 54	7	No	Presence of iron, manganese, and organics in water
Color - entry points (color units - apparent)	15		1,825	3 - 18	7	No	Presence of iron, manganese, and organics in water
Copper (mg/L)	1.3 (4)	1.3	308	ND - 0.054	0.006	No	Corrosion of household plumbing; erosion of natural deposits
Corrosivity (Langelier index)	- (5)		257	-2.88 to -1.05	-2.25	No	
Fluoride (mg/L)	2.2	4	2,071	ND - 0.8	0.7	No	Water additive which promotes strong teeth; erosion of natural deposits
Hardness (mg/L $CaCO_3$)	-		308	16 - 99	24	No	Erosion of natural deposits
Hardness (grains/gallon[US]$CaCO_3$) (6)	-		308	1 - 6	1	No	Erosion of natural deposits
Iron (μg/L)	300 (7)		308	ND - 76	31	No	Naturally occurring
Lead (μg/L)	15 (4)		308	ND - 6	ND	No	Erosion of natural deposits
Magnesium (mg/L)	-		308	1 - 8.6	1.7	No	Erosion of natural deposits

Continued on next page

Detected Conventional Physical and Chemical Parameters (continued)

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Manganese (µg/L)	300 (7)		308	ND - 49	16	No	Naturally occurring
Nickel (µg/L)	-		308	ND - 1.2 (8)	ND	No	Erosion of natural deposits
Nitrate (mg/L nitrogen)	10	10	308	0.08 - 0.45	0.13	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
pH (pH units)	6.8 - 8.2 (9)		15,240	6.8 - 10.1 (9)	7.3	No	
Phosphate, Ortho- (mg/L)	1 - 4 (9)		11,025	0.8 - 4.8 (9)	2.2	No	Water additive for corrosion control
Potassium (mg/L)	-		308	0.5 - 2.6	0.7	No	Erosion of natural deposits
Silica [silicon oxide] (mg/L)	-		231	2 - 6.4	2.7	No	Erosion of natural deposits
Sodium (mg/L)	NDL (10)		308	7 - 53	12	No	Naturally occurring; road salt; water softeners; animal waste
Specific Conductance (µS/cm)	-		15,238	76 - 488	101	No	
Strontium (µg/L)	-		308	15 - 79	22	No	Erosion of natural deposits
Sulfate (mg/L)	250		308	3 - 35	5	No	Naturally occurring
Temperature (°F)	-		15,240	35 - 83	56	No	
Total Dissolved Solids (mg/L)	500 (1)		258	39 - 244	62	No	Metals and salts naturally occurring in the soil; organic matter
Total Organic Carbon (mg/L)	-		408	0.7 - 2.0	1.7	No	Organic matter naturally present in the environment
Total Organic Carbon - source water (mg/L)	- (2)		8	2.1 - 4.2	3.1	No	Organic matter naturally present in the environment
Turbidity (11) - distribution system (NTU)	5 (12)		13,413	ND - 4.1	1.0 (12)	No	Soil runoff
Turbidity (11) - source water (NTU)	5 (13)		-	-	2.0 (13)	No	Soil runoff
Turbidity (11) - filtered water (NTU)	0.3 (14)		-	-	0.4 (14)	No	Soil runoff
UV 254 (absorbance/cm)	-		365	0.011 - 0.045	0.032	No	Organic matter naturally present in the environment
Zinc (mg/L)	5		308	ND - 0.036	ND	No	Naturally occurring

Continued on next page

Detected Organic Parameters

PARAMETER	NYSDOH MCL (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	AVERAGE	MCL VIOLATION	LIKELY SOURCES IN DRINKING WATER
Bromochloroacetic Acid (µg/L)	50		304	ND - 2.2	1.2	No	By-product of drinking water chlorination
Bromodichloroacetic Acid (µg/L)	50 [2]		80	1 - 5	3	No	By-product of drinking water chlorination
Chlorodibromoacetic Acid (µg/L)	50 [2]		80	ND - 0.6	ND	No	By-product of drinking water chlorination
Haloacetic Acid 5 (HAA5) (µg/L)	60 [15]		304	4 - 60	**61** [15]	**Yes** [16]	By-product of drinking water chlorination
Haloacetic Acid Brominated (HAA6Br) (µg/L)	- [2]		80	2 - 9	4	No	By-product of drinking water chlorination
Haloacetic Acid 9 (HAA9) (µg/L)	- [2]		80	31 - 82	53	No	By-product of drinking water chlorination
Hexachlorocyclopentadiene (µg/L)	5		24	ND - 0.1	ND	No	Discharge from chemical factories
Phenanthrene	50		82	ND - 0.16	ND	No	Incomplete combustion of wood and fossil fuels
Total Organic Halogen (µg/L)	-		137	116 - 245	183	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (µg/L)	80 [15]		304	4 - 72	55 [15]	No	By-product of drinking water chlorination

Detected Microbial Parameters

PARAMETER	TT (Highest Level Allowed)	EPA MCLG (Ideal Goal)	# SAMPLES	RANGE	# SAMPLES POSITIVE	AVERAGE	HIGHEST MONTH % POSITIVE	ASSESSMENT TRIGGERED	LIKELY SOURCES IN DRINKING WATER
"Total Coliform Bacteria (% of samples positive/ month)"	5% [17]	0	9,798	-	60	-	4.3%	No	Naturally present in the environment
Heterotrophic Plate Count (CFU/mL)	-	-	12,058	ND - 1568	223	ND	-	-	Naturally present in the environment

Lead and Copper Rule Residential Tap Sampling

PARAMETER	NYSDOH AL	EPA MCLG (Ideal Goal)	90% OF YOUR LEVELS WERE LESS THAN	RANGE	# SAMPLES EXCEEDING AL	EXCEEDANCE	LIKELY SOURCES IN DRINKING WATER
Copper (mg/L)	1.3	1.3	0.194	0.01 - 3.20	1 out of 356	No	Corrosion of household plumbing
Lead (µg/L)	15	0	11	ND - 300	25 out of 356	No	Corrosion of household plumbing

Continued on next page

Cryptosporidium and *Giardia* Source Water Sampling [18]

PARAMETER	RESERVOIR	# SAMPLES	# SAMPLES POSITIVE	RANGE	LIKELY SOURCES IN DRINKING WATER
Cryptosporidium (oocysts/50L)	Kensico	52	4	0 - 1	Animal fecal waste
	Hillview	52	3	0 - 1	
	Croton	4	0	0	
Giardia (cysts/50L)	Kensico	52	21	0 - 6	Animal fecal waste
	Hillview	52	12	0 - 4	
	Croton	4	1	0 - 1	

UNITS AND ABBREVIATIONS

$CaCO_3$ = calcium carbonate

CFU/mL = colony forming units per milliliter

/cm = per centimeter

°F = degrees Fahrenheit

µg/L = micrograms per liter (10^{-6} grams per liter)

µS/cm = microsiemens per centimeter

mg/L = milligrams per liter (10^{-3} grams per liter)

MPN/100mL = most probable number per 100 mils

ND = parameter is not detected

NDL = no designated limits

NTU = nephelometric turbidity units

/50L = per 50 liters

DEFINITIONS

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

Maximum Contaminant Level (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 (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.

Maximum Residual Disinfectant Level (MRDL):
The highest level of a disinfectant allowed in drinking water. The 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 contamination.

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

90th Percentile Value:
The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below the value. The 90th percentile is equal to or greater than 90 percent of the lead and copper values detected at your water system.

The following parameters were not detected in any sample monitored for in 2022

Conventional Physical, Chemical and Microbial Parameters:

Antimony; Arsenic; Asbestos [19]; Beryllium; Cadmium; Cyanide; *E. Coli*; Gross alpha [19]; Lithium; Mercury; Nitrite; Radium 228 [19]; Selenium; Silver; Thallium; Uranium [19]

Principal Organic Contaminants:

Benzene; Bromobenzene; Bromochloromethane; Bromomethane; tert-Butylbenzene; n-Butylbenzene; sec-Butylbenzene; Carbon tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; 2-Chlorotoluene; 4-Chlorotoluene; Dibromomethane; 1,3-Dichlorobenzene; 1,2-Dichlorobenzene; 1,4-Dichlorobenzene; Dichlorodifluoromethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethene; cis-1,2-Dichloroethylene; trans-1,2-Dichloroethylene; 2,2-Dichloropropane; 1,2-Dichloropropane; 1,3-Dichloropropane; 1,1-Dichloropropene; cis-1,3-Dichloropropene; trans-1,3-Dichloropropene; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; p-Isopropyltoluene; Methylene chloride; n-Propylbenzene; Styrene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Toluene; 1,2,4-Trichlorobenzene; 1,2,3-Trichlorobenzene; 1,1,2-Trichloroethane; 1,1,1-Trichloroethane; Trichloroethene; Trichlorofluoromethane; 1,2,3-Trichloropropane; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; m,p-Xylene; o-Xylene

Specified Organic Contaminants:

Di(2-ethylhexyl)adipate; Alachlor; Aldicarb (Temik); Aldicarb sulfone; Aldicarb sulfoxide; Aldrin; Atrazine; Benzo(a)pyrene; Butachlor; Carbaryl; Carbofuran (Furadan); Chlordane; 2,4-D; Dalapon; 1,2-Dibromo-3-chloropropane; Di(2-ethylhexyl)phthalate; Dicamba; Dieldrin; Dinoseb; 1,4-Dioxane; Diquat; Endothall; Endrin; Ethylene dibromide (EDB); Glyphosate; Heptachlor epoxide; Heptachlor; Hexachlorobenzene; 3-Hydroxycarbofuran; Lindane; Methomyl; Methoxychlor; Methyl-tertiary-butyl-ether (MTBE); Metolachlor; Metribuzin; Oxamyl (Vydate); Pentachlorophenol; Perfluorooctanesulfonic acid (PFOS); Picloram; Polychlorinated biphenyls (PCBs); PCB 1016 Aroclor; PCB 1221 Aroclor; PCB 1232 Aroclor; PCB 1242 Aroclor; PCB 1248 Aroclor; PCB 1254 Aroclor; PCB 1260 Aroclor; Propachlor; Simazine; 2,3,7,8-TCDD (Dioxin); Toxaphene; 2,4,5-TP (Silvex); Vinyl chloride

Unspecified Organic Contaminants:

Acenaphthene; Acenaphthylene; Acetochlor; Acetone; Acifluorfen; Allyl chloride; Ametryn; t-Amyl ethyl ether; tert-Amyl methyl ether; Anthracene; Atraton; Propoxur (Baygon); Bentazon; Benzo[a]anthracene; Benzo[b]fluoranthene; Benzo[g,h,i]perylene; Benzo[k]fluoranthene; Butylbenzylphthalate; beta-BHC; alpha-HCH; Bromacil; Bromoacetic acid; Bromoform; 1,3-Butadiene; tert-Butyl alcohol; tert-Butyl ethyl ether; Butylate; Butylated hydroxytoluene (BHT); Caffeine; Carbon Disulfide; gamma-Chlordane; alpha-Chlordane; trans-Chlordane; Chlorfenvinphos; Chlorobenzilate; 4-Chlorobiphenyl; 2-Chlorobiphenyl; 1-Chlorobutane; Chlorodifluoromethane; 11-Chloroeicosafluoro-3-oxaundecane-sulfonic acid; 9-Chlorohexadecafluoro-3-oxanone-sulfonic acid; Chloroneb; Chlorothalonil (Draconil; Bravo); Chlorpropham; Chlorpyrifos (Dursban); Chrysene; Cyanazine; Cycloate; Hexafluoropropylene oxide dimer acid (HFPO-DA); DCPA(Dacthal); 2,4-DB; 2,4-DDD; 4,4'-DDD; 2,4-DDE; 4,4'-DDE; 2,4-DDT; 4,4'-DDT; DEET; delta-HCH; Diazinon; Dibenz[a,h]anthracene; Dibromoacetic acid; 3,5-Dichlorobenzoic acid; 2,4'-Dichlorobiphenyl; Dichlorprop; Dichlorvos (DDVP); Diethyl ether; Diethylphthalate; Di-isopropyl ether; Diisopropyl methylphosphonate; Dimethipin; Dimethoate; Dimethylphthalate; 2,4-Dinitrotoluene; 2,6-Dinitrotoluene; 4,8-dioxa-3H-perfluorononanoic acid (ADONA); Diphenamid; Disulfoton; Endosulfan I; Endosulfan II; Endosulfan sulfate; Endrin aldehyde; Endrin Ketone; EPTC; Ethion; Ethoprop; Ethyl methacrylate; N-ethyl Perfluorooctanesulfonamidoacetic acid; Etridiazole; Fenarimol; Fluoranthene; Fluorene; Fluridone; 2,2',3,4,4',5,5'-Heptachlorobiphenyl; 2,2',4,4',5,5'-Hexachlorobiphenyl; 2,2',3,4,4',5'-Hexachlorobiphenyl; 2,2',3,4',5',6-Hexachlorobiphenyl; Hexachloroethane; Hexazinone; Indeno[1,2,3-cd]pyrene; Isophorone; Malathion; Methiocarb; Methyl acetate; Methyl iodide; Methyl parathion; N-methyl Perfluorooctanesulfonamidoacetic acid; Mevinphos; MGK-264 isomer a & b; Molinate; Naphthalene; Napropamide; Di-n-Butylphthalate; Nitrofen; Di-N-octylphthalate; cis-Nonachlor; trans-Nonachlor; Norflurzon; Oxyfluorfen; Paraquat; Parathion; Pebulate; Pendimethalin; 2,3',4,4',5-Pentachlorobiphenyl; 2,3,3',4',6-Pentachlorobiphenyl; Pentachloroethane; Perfluorobutanesulfonic acid (PFBS); Perfluorodecanoic acid (PFDA); Perfluorododecanoic acid (PFDoA); Perfluoroheptanoic acid (PFHpA); Perfluorohexanesulfonic acid (PFHxS); Perfluorohexanoic acid (PFHxA); Perfluorononanoic acid (PFNA); Perfluorooctanoic acid (PFOA); Perfluorotetradecanoic acid (PFTA); Perfluorotridecanoic acid (PFTrDA); Perfluoroundecanoic acid (PFUnA); cis-Permethrin; trans-Permethrin; Permethrin (mixed isomers); Phorate; Phosphamidon; Profenofos; Prometon; Prometryn; Pronamide; Propazine; Pyrene; Simetryn; 2,4,5-T; Tebuconazole; Tebuthiuron; Terbacil; Terbuthylazine; Terbutryn; 2,2',3,5'-Tetrachlorobiphenyl; 2,2',5,5'-Tetrachlorobiphenyl; 2,3',4',5-Tetrachlorobiphenyl; Tetrachlorovinphos; Tetrahydrofuran; Thiobencarb; Triademefon; Tribufos; 2,4,4'-trichlorobiphenyl; 2,2',5-Trichlorobiphenyl; Trifluralin; Vernolate; Vinclozolin

Fourth Unregulated Contaminant Monitoring Rule (UCMR4) [2] and Emerging Contaminants:

Anatoxin-a; 1-Butanol; Butylated hydroxyanisole; Chlorpyrifos; Cylindrospermopsin; Dimethipin; Ethoprop; alpha-HCH; Germanium Total ICAP/MS; 2-Methoxyethanol; Microplastics [20]; Monobromoacetic acid; Monochloroacetic acid; Oxyfluorfen; Profenofos; 2-Propen-1-ol; Quinoline; Tebuconazole; o-Toluidine; Total Microcystins; Total Permethrin (cis & trans); Tribromoacetic acid; Tribufos

2022 MONITORING DATA FOOTNOTES

(1) EPA Secondary MCL: NYSDOH has not set an MCL for this parameter.

(2) Monitored for under the Fourth Unregulated Contaminant Monitoring Rule (UCMR4) in 2018 and 2019. UCMR4 included source water monitoring for bromide and total organic carbon; EPA has not established an MCL for these parameters.

(3) Value represents MRDL, which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. The MRDL is enforceable in the same manner as an MCL and is the calculated running annual average. Data presented are the range of individual sampling results and the highest of the four quarterly running annual averages.

(4) Action Level (not an MCL) measured at-the-tap. The data presented in this table were collected from sampling stations at the street curb. For at-the-tap monitoring, see the Lead and Copper Rule Residential Tap Sampling table.

(5) A Langelier Index of less than zero indicates corrosive tendencies.

(6) Hardness of up to 3 grains per gallon is considered soft water; between 3 and 9 is moderately hard water.

(7) If iron and manganese are present, the total concentration of both should not exceed 500 µg/L.

(8) Nickel was only detected in one sample on 6/7/22 at site 1SCL1 (Van Cortlandt Village, 10463).

(9) NYSDOH established Optimal Water Quality Parameters (OWQP) under the Lead and Copper Rule which includes a range for pH and ortho-phosphate which are presented here. The reported average value for pH is the median value. The pH was elevated in two samples collected from site 3ISL4 (Randall's Island, 10035) on 2/3/22 and 3/3/22. Ortho-phosphate was greater than range in three samples collected from site 11750 (City Island, 10464) on 4/16/22, 4/28/22, and 7/2/22 due to an Optimization Control Study being conducted in this area of the system.

(10) Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

(11) Turbidity is a measure of cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality, because high turbidity can hinder the effectiveness of disinfection, and because it is a good indicator of the effectiveness of our filtration system.

(12) This MCL for turbidity is the monthly average rounded off to the nearest whole number. Data presented are the range of individual sampling results and the highest monthly average from distribution sites, which was in April 2022.

(13) This MCL for turbidity is on individual readings taken every four hours at the unfiltered Catskill/Delaware source water entry point. Value presented is the highest individual sampling result, which occurred on 12/4/2022.

(14) This is a TT (performance standard) for the Croton Filtration Plant that > 5% of measurements/month must not exceed. The value presented is the highest single combined filter effluent turbidity measurement which occurred on 10/7/22. In 2022, 100% of turbidity results were <0.3 NTU.

(15) The MCLs for HAA5 and TTHMs are the calculated locational running annual average (LRAA). The data in the Range column are the minimum and maximum values of all sample sites monitored in the distribution system whether for compliance purposes or not. The values in the Average column are the highest LRAA.

(16) The HAA5 LRAA MCL was exceeded in the 1st quarter of 2022 at site 50250 sampled on 2/1/2022.

(17) If a sample and one of its repeat samples are both positive for coliform bacteria and one of the two samples is positive for *E. coli*. This is a TT that triggers a Level 1 assessment if exceeded.

(18) DEP collected samples of water leaving New Croton Reservoir and Kensico Reservoir, prior to chlorination and UV disinfection, and leaving Hillview Reservoir, prior to secondary disinfection with chlorine, and analyzed using EPA Method 1623.1.

(19) NYSDOH allows monitoring for these contaminants less frequently than once per year. These data, though representative, are from 2020 except for Radium 228 which are from 2021.

(20) Separate from the UCMR4, DEP tested for microplastics in 2018 and additional monitoring will be conducted in 2023.

CONTACT INFORMATION

Public Water System Identification Number (PWSID) NY7003493

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
Rohit T. Aggarwala, Commissioner // 718-595-3000 // **nyc.gov/dep**
59-17 Junction Blvd, Flushing, NY 11373

NEW YORK CITY WATER BOARD
Visit **nyc.gov/waterboard** for a list of upcoming meetings and information about opportunities to participate in decisions that affect water quality.

CONTAMINANTS QUESTIONS
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 1-800-426-4791.

CRYPTOSPORIDIUM AND *GIARDIA* QUESTIONS
DOHMH Bureau of Communicable Diseases // 347-396-2600

CUSTOMER BILLING QUESTIONS
DEP Customer Service // 718-595-7000 // **nyc.gov/dep**

LEAD IN DRINKING WATER QUESTIONS
DEP Lead Unit // 718-595-5364 // **nyc.gov/dep/leadindrinkingwater**

HEALTH QUESTIONS (WATER SUPPLY-RELATED)
DOHMH // Call 311 or 212-NEW YORK (639-9675) // **nyc.gov/apps/311**
NYSDOH Bureau of Water Supply Protection // 518-402-7650 // **health.ny.gov**

REPORT UNUSUAL COLOR, TASTE OR ODOR OF DRINKING WATER
Call 311 or 212-NEW YORK (639-9675) // **nyc.gov/apps/311**

REPORT POLLUTION, CRIME, OR TERRORISM IN THE WATERSHED
DEP Police and Security // 888-H2O-SHED (426-7433) // **nyc.gov/dep**

REQUEST ADDITIONAL COPIES OF THIS REPORT OR VIEW REPORT ONLINE
Call 311 or 212-NEW YORK (639-9675) // **nyc.gov/waterqualityreport**

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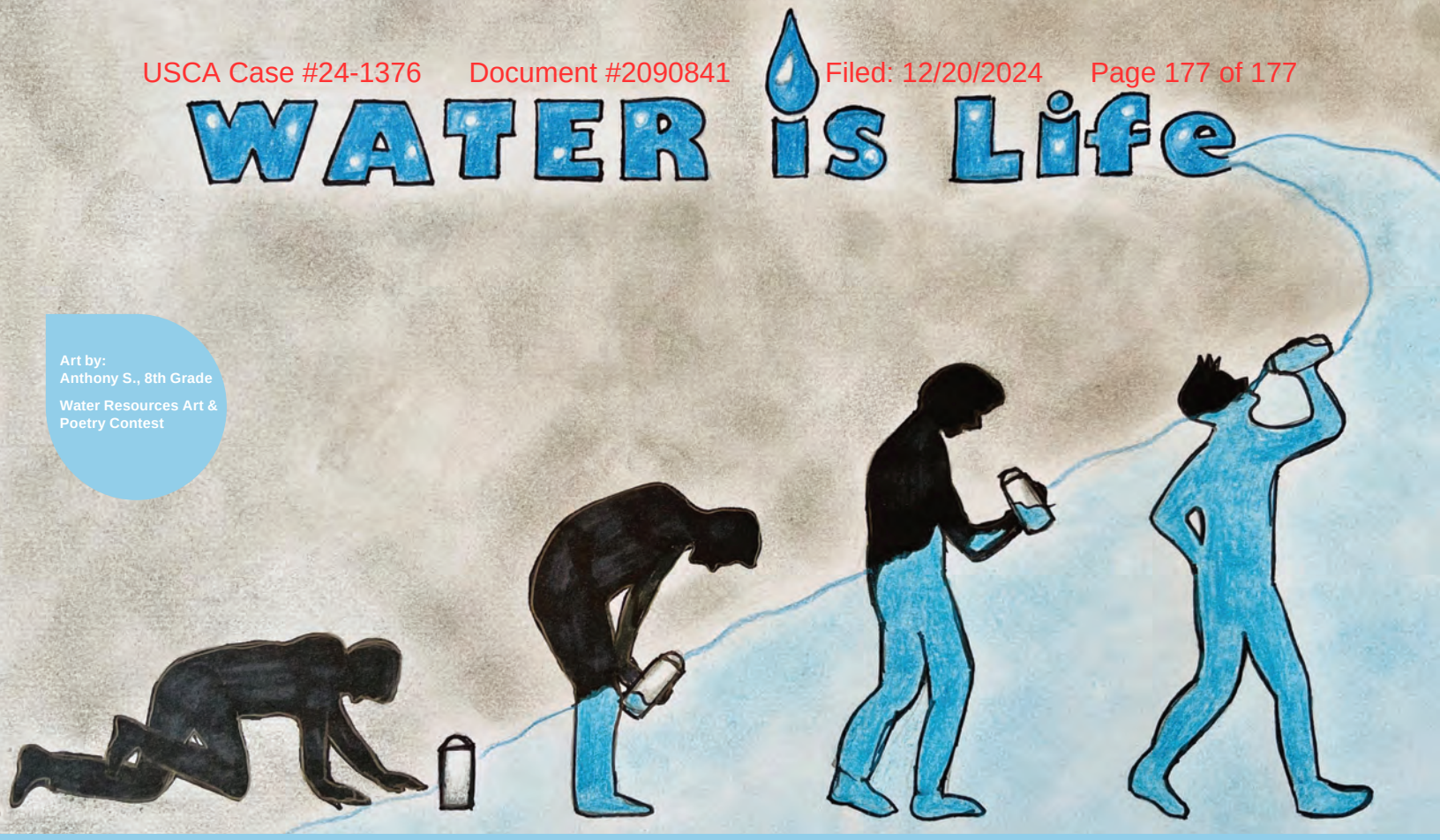

This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

Este reporte contiene información muy importante sobre el agua que usted toma. Haga que se la traduzcan o hable con alguien que la entienda.

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

Rapò sa a gen enfòmasyon ki enpòtan anpil sou dlo w'ap bwè a. Fè tradwi-l pou ou, oswa pale ak yon moun ki konprann sa ki ekri ladan-l.

Ten raport zawiera bardzo istotną informacje o twojej wodzie pitnej. Przetłumacz go albo porozmawiaj z kimś kto go rozumie.

В этом материале содержится важная информация относительно вашей питьевой воды. Переведите его или поговорите с кем-нибудь из тех, кто понимает его содержание.

這個報告中包含有關你的飲用水的重要信息 。 請將此報告翻譯成你的語言或者詢問懂得這份報 告的人 。

이 보고서는 귀하의 식수에 관한 매우 중요한 정보를 포함하고 있습니다. 이 정보에 대해 이해하는 사람에게 그 정보를 번역하거나 통역해 받으십시오.

এই প্রতিবেদনে আপনার পানীয় জল সম্পর্কে গুরুত্বপূর্ণ তথ্য রয়েছে

يتضمن هذا التقرير معلومات هامة حول مياه الشرب الخاصة بك. ترجمه أو تحدث مع شخص يفهمه.

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