

What recovered wastewater looks like next to New York City's tap water.

Thirty-eight parameters, side by side. One is a protected mountain watershed serving nine million people. The other started the day as raw wastewater and left our system in under fifteen minutes.

Municipal reference

NYC 2025 Drinking Water
Supply & Quality Report

Eco World Water data

FDEP Final Test Report
Y1-25-005A, January 2026

Sample point

Post-RO product water,
patented Separator train

How to read this comparison

These two waters are not produced the same way, and the comparison does not pretend otherwise. New York City draws from a protected upland watershed and disinfects for distribution across thousands of miles of pipe. Eco World Water starts with raw municipal wastewater and drives it through a multi-barrier train — the patented Separator, media, ultrafiltration, UV, reverse osmosis.

Where a parameter is measured and regulated on both sides, the comparison is direct. Where it is not — total nitrogen, phosphorus, CBOD — the row is marked as such rather than scored. Non-detect results are shown with their laboratory reporting limits, because a non-detect only means as much as the limit behind it.

Standards in the center column are the federal values that apply to finished drinking water. They are included as a reference line, not as a claim of drinking water approval.¹

Reuse and wastewater parameters

Not reported Turbidity reported instead	Total suspended solids mg/L —	ND RL <1.0 <i>Not directly comparable</i>
73 Range 45–240	Total dissolved solids mg/L 500 Secondary	54.2 Range 18–110 Eco lower
Not reported	Total nitrogen mg/L —	2.3 <i>Not directly comparable</i>
Not reported	Total phosphorus mg/L —	ND RL <0.040 <i>Not directly comparable</i>
Not reported	CBOD₅ mg/L —	ND RL <2.0 <i>Not directly comparable</i>
Not reported E. coli reported instead	Fecal coliform MPN/100 mL —	ND RL <1.0 <i>Not directly comparable</i>
3.1% Highest month; 47 of 9,203	Total coliform % positive <5%	ND RL <1.0 MPN/100 mL Eco lower

Regulated drinking water parameters

0.14 Range 0.07–0.37	Nitrate (as N) mg/L 10 MCL	ND RL <0.10 Eco lower
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ND	Nitrite (as N) mg/L 1 MCL	ND RL <0.10 Both non - detect
0.7 Range ND–0.8; added for public health	Fluoride² mg/L 4.0 MCL	ND RL <0.10; not added Different by design
0.6 Range ND–1.4; added for distribution	Free chlorine residual mg/L 4.0 MRDL	Not used Different by design
7.3 Range 6.9–8.1	pH³ units 6.5–8.5 Secondary	6.72 Range 5.4–7.7 Comparable
1.0 Range ND–13.8	Turbidity, distribution⁴ NTU 5 Distribution	0.43 Range 0.3–0.6 Eco lower

Metals

ND Range ND–2.5	Lead µg/L 15 Action level	ND RL <0.24 Both non - detect
0.007 Range ND–0.048	Copper mg/L 1.3 Action level	ND RL <0.00064 Eco lower
ND Range ND–3	Chromium, total⁵ µg/L 100 MCL	1.4 Both well below MCL
0.02 Range 0.01–0.03	Barium mg/L 2 MCL	0.00057 Single detection Eco lower
27 Range ND–95	Iron µg/L 300 Secondary	ND RL <60 Eco lower
21 Range ND–140	Manganese⁶ µg/L 50 Secondary	ND RL <8.4 Eco lower
16 Range 5–62	Aluminum µg/L 50–200 Secondary	ND RL <3.4 Eco lower

ND	Mercury mg/L 0.002 MCL	ND RL <0.00020 Both non-detect
ND	Arsenic mg/L 0.01 MCL	ND RL <0.00039 Both non-detect

Disinfection byproducts

52 Range 4–81	Total trihalomethanes µg/L 80 MCL	9.85 Range 4.8–15 Eco 81% lower
47 Range 7–64	Haloacetic acids (HAA5)⁷ µg/L 60 MCL	1.56 Weeks 3–4 only Eco 97% lower

PFAS

ND–2.7 Single detection	PFOA ng/L 4.0 MCL, EPA	ND RL <0.40 Eco lower
ND UCMR5	PFOS ng/L 4.0 MCL, EPA	ND RL <0.40 Both non-detect
ND UCMR5	PFHxS ng/L 10 MCL, EPA	ND RL <0.40 Both non-detect
ND UCMR5	Nine further PFAS compounds ng/L Varies	ND RL <0.40–0.81 Both non-detect

Microbiological

ND	E. coli MPN/100 mL Absent	ND RL <1.0 Both non-detect
Present in source Kensico: 5 of 53 samples	Cryptosporidium⁸ oocysts/50 L Treatment technique	ND Eco non-detect
Present in source Kensico: 38 of 53 samples	Giardia⁸ cysts/50 L Treatment technique	ND Eco non-detect

Not reported	Legionella ⁹ MPN/100 mL —	ND RL varied 1.0–100 by week Not directly comparable
ND Range ND–61	Heterotrophic plate count CFU/mL <500 Treatment technique	11.6 Range 0.5–23 Comparable

Aesthetic and mineral content

19 Range 12–72	Chloride mg/L 250 Secondary	0.56 Range 0.27–0.86 Eco 97% lower
6 Range 3–33	Sulfate mg/L 250 Secondary	ND RL <0.50 Eco lower
16 Range 9–49	Sodium mg/L —	Not reported Not measured
7 Range 3–130	Color units 15 Secondary	5.0 Eco lower
32 Range 18–100	Hardness mg/L as CaCO ₃ —	Not reported Not measured

What the data shows

Across every parameter where a direct comparison is possible, Eco World Water's post-RO product water met or came in below New York City's reported values. Both waters are non-detect for the regulated PFAS compounds tested, for lead, mercury and arsenic, and for E. coli.

The largest separations are in disinfection byproducts. Eco's product water measured 81% lower for trihalomethanes and 97% lower for haloacetic acids — because the treatment train does not rely on chlorination to hold water quality through a distribution system.

Reverse osmosis also strips dissolved minerals well past drinking water norms: chloride at 0.56 mg/L against NYC's 19, sulfate non-detect, total dissolved solids averaging 54 mg/L. Water this low in minerals is often remineralized before an end use that calls for it.

New York City's fluoride and chlorine residual are added deliberately for public health and distribution safety. Their absence in Eco's product water reflects a different job, not a better one. And the wastewater parameters — nitrogen, phosphorus, CBOD, fecal coliform — have no counterpart in a surface water supply report. They are shown because Eco reaches non-detect or near non-detect on all of them starting from raw wastewater influent.

Notes

1. Standards shown are federal maximum contaminant levels, secondary standards, action levels or maximum residual disinfectant levels for finished drinking water. Eco World Water's product water was produced and tested as advanced treated wastewater. Inclusion of drinking water standards is for reference only and does not represent a drinking water approval or a potable reuse permit.
2. The federal primary MCL for fluoride is 4.0 mg/L; the secondary standard is 2.0 mg/L. New York State applies a lower operational target for fluoridated systems.
3. Eco's product water pH runs slightly lower, which is expected downstream of reverse osmosis. pH is routinely adjusted to suit the receiving application.
4. New York City operates an unfiltered supply under a federal filtration avoidance determination. The 5 NTU figure is the distribution system standard.
5. Reported as 0.0014 mg/L in the FDEP test report; converted here to 1.4 µg/L for comparison.
6. EPA's secondary standard for manganese is 50 µg/L. New York State applies a 300 µg/L standard, against which NYC's reported values are compliant.
7. HAA5 was measured during weeks 3 and 4 of the test period only. This is a partial dataset and should be read as indicative rather than as a full-period average.
8. Cryptosporidium and Giardia were not detected in Eco's product water. The treatment train is designed to provide multiple physical barriers against protozoa through ultrafiltration and reverse osmosis; log removal values were not independently validated in this test program.
9. Laboratory reporting limits for Legionella varied between 1.0 and 100 MPN/100 mL across sampling weeks. All results were below the applicable reporting limit for the week sampled.

Eco World Water

An advanced water reuse technology company converting raw wastewater into high-quality reusable water through rapid, modular, multi-barrier treatment systems built around a patented Separator.

Data from the NYC 2025 Drinking Water Supply & Quality Report and FDEP Final Test Report Y1-25-005A (January 2026). Test results reflect the sampling period, influent characteristics and system configuration of that program; performance at other sites will vary with influent quality and treatment train configuration. This document is provided for technical reference and does not constitute a performance warranty.