

City of Norfolk

Water Quality Analysis

This report covers the 3rd Quarter of 2023

Wednesday, June 11, 2025

Kristen M. Lentz Water Treatment Plant

Primary Regulated Compounds

These are compounds for which there are actual limits called Maximum Contaminant Levels, or MCLs. The MCL is the highest level of a contaminant that is allowed in drinking water. The Environmental Protection Agency establishes these levels based on health effects research.

Compound		Result	MCL	Method
1,1,1-Trichloroethane	<	0.5 ug/L	200 ug/L	EPA 524.2
1,1,2-Trichloroethane	<	0.5 ug/L	5 ug/L	EPA 524.2
1,1-Dichloroethylene	<	0.5 ug/L	7 ug/L	EPA 524.2
1,2,4-Trichlorobenzene	<	0.5 ug/L	70 ug/L	EPA 524.2
1,2-Dichloroethane	<	0.5 ug/L	5 ug/L	EPA 524.2
1,2-Dichloropropane	<	0.5 ug/L	5 ug/L	EPA 524.2
2,3,7,8-TCDD	<	4.8 pg/L	30 pg/L	EPA 1613B
2,4,5-TP	<	0.2 ug/L	50 ug/L	EPA 515.4
2,4-D	<	0.1 ug/L	70 ug/L	EPA 515.4
Alachlor	<	0.1 ug/L	2 ug/L	EPA 505
Aldicarb	<	0.5 ug/L	stayed	EPA 531.2
Aldicarb sulfone	<	0.5 ug/L	stayed	EPA 531.2
Aldicarb sulfoxide	<	0.5 ug/L	stayed	EPA 531.2
Antimony	<	0.002 mg/L	0.006 mg/L	EPA 200.8
Arsenic	<	0.002 mg/L	0.010 mg/L	EPA 200.8
Atrazine	<	0.048 ug/L	3 ug/L	EPA 525.2
Barium		0.04 mg/L	2 mg/L	EPA 200.8
Benzene	<	0.5 ug/L	5 ug/L	EPA 524.2
Benzo(a)pyrene	<	0.019 ug/L	0.2 ug/L	EPA 525.2
Beryllium	<	0.002 mg/L	0.004 mg/L	EPA 200.8
Cadmium	<	0.002 mg/L	0.005 mg/L	EPA 200.8
Carbofuran	<	0.5 ug/L	40 ug/L	EPA 531.2
Carbon Tetrachloride	<	0.5 ug/L	5 ug/L	EPA 524.2
Chlordane	<	0.1 ug/L	2 ug/L	EPA 505
Chlorobenzene	<	0.5 ug/L	100 ug/L	EPA 524.2
Chromium	<	0.002 mg/L	0.1 mg/L	EPA 200.8
cis-1,2-Dichloroethylene	<	0.5 ug/L	70 ug/L	EPA 524.2
Copper	<	0.025 mg/L	1.3 mg/L	EPA 200.8
Dalapon	<	1 ug/L	200 ug/L	EPA 515.4
Di(2-ethylhexyl)adipate	<	0.58 ug/L	400 ug/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<	0.58 ug/L	6 ug/L	EPA 525.2
Dibromochloropropane	<	0.01 ug/L	0.2 ug/L	EPA 504.1
Dichloromethane	<	0.5 ug/L	5 ug/L	EPA 524.2
Dinoseb	<	0.2 ug/L	7 ug/L	EPA 515.4
Diquat	<	0.39 ug/L	20 ug/L	EPA 549.2
Endothall	<	5 ug/L	100 ug/L	EPA 548.1
Endrin	<	0.01 ug/L	2 ug/L	EPA 505
Ethylbenzene	<	0.5 ug/L	700 ug/L	EPA 524.2
Ethylene dibromide	<	0.01 ug/L	0.05 ug/L	EPA 504.1
Glyphosate	<	6 ug/L	700 ug/L	EPA 547
Heptachlor	<	0.01 ug/L	0.4 ug/L	EPA 505
Heptachlor epoxide	<	0.01 ug/L	0.2 ug/L	EPA 505
Hexachlorobenzene	<	0.048 ug/L	1 ug/L	EPA 525.2

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Hexachlorocyclopentadiene	<	0.048 ug/L	50 ug/L	EPA 525.2
Lead	<	0.0025 mg/L	0.015 mg/L	EPA 200.8
Lindane	<	0.01 ug/L	0.2 ug/L	EPA 505
Mercury	<	0.0002 mg/L	0.002 mg/L	EPA 200.8
Methoxychlor	<	0.05 ug/L	40 ug/L	EPA 505
o-Dichlorobenzene	<	0.5 ug/L	600 ug/L	EPA 524.2
Oxamyl	<	0.5 ug/L	200 ug/L	EPA 531.2
p-Dichlorobenzene	<	0.5 ug/L	75 ug/L	EPA 524.2
PCB 1016	<	0.07 ug/L	0.5 ug/L	EPA 505
PCB 1221	<	0.1 ug/L	0.5 ug/L	EPA 505
PCB 1232	<	0.1 ug/L	0.5 ug/L	EPA 505
PCB 1242	<	0.1 ug/L	0.5 ug/L	EPA 505
PCB 1248	<	0.1 ug/L	0.5 ug/L	EPA 505
PCB 1254	<	0.1 ug/L	0.5 ug/L	EPA 505
PCB 1260	<	0.07 ug/L	0.5 ug/L	EPA 505
Pentachlorophenol	<	0.04 ug/L	1 ug/L	EPA 515.4
Picloram	<	0.1 ug/L	500 ug/L	EPA 515.4
Selenium	<	0.002 mg/L	0.05 mg/L	EPA 200.8
Simazine	<	0.048 ug/L	4 ug/L	EPA 525.2
Styrene	<	0.5 ug/L	100 ug/L	EPA 524.2
Tetrachloroethylene	<	0.5 ug/L	5 ug/L	EPA 524.2
Thallium	<	0.002 mg/L	0.002 mg/L	EPA 200.8
Toluene	<	0.5 ug/L	1,000 ug/L	EPA 524.2
Toxaphene	<	0.5 ug/L	3 ug/L	EPA 505
trans-1,2-Dichloroethylene	<	0.5 ug/L	100 ug/L	EPA 524.2
Trichloroethylene	<	0.5 ug/L	5 ug/L	EPA 524.2
TTHM Compliance		39.4 ug/L	80 ug/L	EPA 524.2
Vinyl Chloride	<	0.3 ug/L	2 ug/L	EPA 524.2

Secondary Regulated Compounds

These compounds have no health significance, but can cause tastes or odors in your water. For this reason, secondary limits called Secondary Maximum Contaminant Levels (SMCLs) have been established. Exceeding these standards does not mean that the water is unhealthy, only that it might taste or smell unusual.

Compound	Result	SMCL	Method
Aluminum	0.008 mg/L	0.05-0.2 mg/L	EPA 200.8
Chloride	18 mg/L	250 mg/L	EPA 300.0
Foaming Agents	< 0.1 mg/L	0.5 mg/L	HACH TNT 874
Iron	< 0.01 mg/L	0.3 mg/L	EPA 200.8
Langelier Index	-1.01 LANG	Noncorrosive	Calculated
Manganese	< 0.005 mg/L	0.05 mg/L	EPA 200.8
Silver	< 0.002 mg/L	0.1 mg/L	EPA 200.8
Solids, Total Dissolved	127 mg/L	500 mg/L	SM 2540 C
Zinc	0.187 mg/L	5 mg/L	EPA 200.8

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Monitored Unregulated Compounds

These compounds are not regulated by the EPA and have no established limits. Mandatory monitoring for these compounds helps EPA determine where certain compounds occur and whether those compounds need to be regulated.

Compound	Result	Method
1,1,1,2-Tetrachloroethane	< 0.5 ug/L	EPA 524.2
1,1,2,2-Tetrachloroethane	< 0.5 ug/L	EPA 524.2
1,1-Dichloroethane	< 0.5 ug/L	EPA 524.2
1,1-Dichloropropene	< 0.5 ug/L	EPA 524.2
1,2,3-Trichlorobenzene	< 0.5 ug/L	EPA 524.2
1,2,3-Trichloropropane	< 0.5 ug/L	EPA 524.2
1,2,4-Trimethylbenzene	< 0.5 ug/L	EPA 524.2
1,3,5-Trimethylbenzene	< 0.5 ug/L	EPA 524.2
1,3-Dichloropropane	< 0.5 ug/L	EPA 524.2
2,2-Dichloropropane	< 0.5 ug/L	EPA 524.2
3-Hydroxycarbofuran	< 0.5 ug/L	EPA 531.2
Aldrin	< 0.01 ug/L	EPA 505
Bromobenzene	< 0.5 ug/L	EPA 524.2
Bromochloromethane	< 0.5 ug/L	EPA 524.2
Bromomethane	< 0.5 ug/L	EPA 524.2
Carbaryl	< 0.5 ug/L	EPA 531.2
Chloroethane	< 0.5 ug/L	EPA 524.2
Chloromethane	< 0.5 ug/L	EPA 524.2
cis-1,3-Dichloropropene	< 0.5 ug/L	EPA 524.2
Dibromomethane	< 0.5 ug/L	EPA 524.2
Dichlorodifluoromethane	< 0.5 ug/L	EPA 524.2
Hexachlorobutadiene	< 0.5 ug/L	EPA 524.2
Isopropylbenzene	< 0.5 ug/L	EPA 524.2
m-Dichlorobenzene	< 0.5 ug/L	EPA 524.2
Methomyl	< 0.5 ug/L	EPA 531.2
Molinate	< 0.097 ug/L	EPA 525.2
MTBE	< 0.5 ug/L	EPA 524.2
n-Butylbenzene	< 0.5 ug/L	EPA 524.2
n-Propylbenzene	< 0.5 ug/L	EPA 524.2
Naphthalene	< 0.5 ug/L	EPA 524.2
o-Chlorotoluene	< 0.5 ug/L	EPA 524.2
p-Chlorotoluene	< 0.5 ug/L	EPA 524.2
p-Isopropyltoluene	< 0.5 ug/L	EPA 524.2
sec-Butylbenzene	< 0.5 ug/L	EPA 524.2
tert-Butylbenzene	< 0.5 ug/L	EPA 524.2

Compounds and Physical Characteristics of Interest

These water quality parameters are not regulated, but are frequently requested by customers.

Compound	Result	Method
Hardness, gr/Gal	2.5 gr/Gal	Calculated
Potassium	2.665 mg/L	EPA 200.8
Silica	7.6 mg/L	EPA 200.7
Sodium	27.78 mg/L	EPA 200.8
Solids, Total	142 mg/L	SM 2540 B
Solids, Volatile	20 mg/L	SM 2540 E
Temperature, C	27.8 °C	CALCULATED

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Additional Unregulated Compounds

Although we are not required to monitor for the following compounds, we include them in order to evaluate compliance with future regulations.

Compound	Result	Method
2-Butanone	< 5 ug/L	EPA 524.2
4-Methyl-2-Pentanone	< 5 ug/L	EPA 524.2
Baygon	< 0.5 ug/L	EPA 531.2
Bentazon	< 0.5 ug/L	EPA 515.4
Boron	0.054 mg/L	EPA 200.7
Bromoethane	< 0.5 ug/L	EPA 524.2
Carbon disulfide	< 0.5 ug/L	EPA 524.2
Di-isopropyl ether	< 3 ug/L	EPA 524.2
m,p-Xylenes	< 0.5 ug/L	EPA 524.2
Methiocarb	< 0.5 ug/L	EPA 531.2
Molybdenum	< 0.002 mg/L	EPA 200.8
Nickel	< 0.002 mg/L	EPA 200.8
o-Xylene	< 0.5 ug/L	EPA 524.2
Paraquat	< 2 ug/L	EPA 549.2
tert-Amyl Methyl Ether	< 3 ug/L	EPA 524.2
tert-Butyl Ethyl Ether	< 3 ug/L	EPA 524.2
Thiobencarb	< 0.19 ug/L	EPA 525.2
trans-1,3-Dichloropropene	< 0.5 ug/L	EPA 524.2
Trichlorofluoromethane	< 0.5 ug/L	EPA 524.2
Trichlorotrifluoroethane	< 0.5 ug/L	EPA 524.2
Vanadium	< 0.002 mg/L	EPA 200.8

Samples collected on:8/8/2023

Location: KML Water Treatment Plant Effluent

Notes of Interest:

1. The MCLs for Lead and Copper, the "action levels," are measured at the 90th percentile of all samples collected.
2. THMs and HAAs are based on a four quarter running average of eight locations throughout Norfolk.
3. Water treatment plant is on a reduced monitoring schedule as of Quarter 3 2021.

For questions concerning this report, please call the Division of Water Quality's Laboratory at 441-5678, Monday thru Friday 8:00am to 4:00pm.

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<http://www.epa.gov/safewater/mcl.html>