

Drinking water quality and control (LZ)
Markus Möller
Phone + 46 8 52 21 24 37
E-mail markus.moller@svoa.se

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Drinking Water in Stockholm – Certification of Quality

The drinking water in Stockholm City is produced by Stockholm Vatten och Avfall (Stockholm Water and Waste) and is certified by ISO 9001 and ISO 14001.

The drinking water in Stockholm City is of a high and consistent quality and is produced by treating water from the Lake Mälaren in our two water works, Lovö and Norsborg.

The control of the production and distribution of drinking water is regulated by the Swedish National Food Administration (Statens Livsmedelsverk), the national directive SLV 2001:30 and changes in legislation LIVSFS 2017:2 (based on the European drinking water directive, 98/83/EG).

The drinking water quality and the quality control performed by Stockholm Water and Waste is in full compliance to existing regulations and guidelines.

Lake Mälaren is by any standard a pure lake and well suited for the production of drinking water. The drinking water can therefore be produced by simple and robust processes.

A quality declaration (based on average water quality data 2022 from our two water works Lovö and Norsborg) is enclosed with this document.

Sincerely,

STOCKHOLM VATTEN OCH AVFALL

Markus Möller
Adviser
Drinking water quality and control

Drinking Water Quality at the Norsborg and Lovö Water Work in Stockholm 2022

Parameter		Unit	Drinking water Norsborg <i>mean</i>	Drinking water Lovö <i>mean</i>	Limits ¹⁾
Temperature		°C	8,6	6,3	20
Colour	Pt	mg/l	< 5	5	15
Turbidity		FNU	0,05	0,06	0,5
Conductivity, 25 °C		mS/m	24	30	250 ⁴⁾
Total organic carbon	TOC	mg C/l	3,7	4,2	5,5 ³⁾⁴⁾
Odour			none	none	<i>weak</i> ⁴⁾
pH			8,4	8,4	<i>should be 6,5 - 9,5</i> ⁴⁾
Alkalinity	HCO ₃	mmol/l	0,90	1,2	-
Total hardness	CaCO ₃	mg/l	77,0	108,2	279 ⁴⁾
Calcium	Ca	mg/l	23	35	100 ⁴⁾
Magnesium	Mg	mg/l	4,7	5,4	30 ⁴⁾
Sodium	Na	mg/l	12	15	100 ⁴⁾
Potassium	K	mg/l	2,3	2,8	-
Iron	Fe	mg/l	< 0,01	< 0,01	0,100
Manganese	Mn	mg/l	< 0,001	< 0,001	0,050 ⁴⁾
Aluminium	Al	mg/l	0,02	0,02	0,100 ⁴⁾
Copper	Cu	mg/l	0,001	0,001	0,20 ⁴⁾
Lead	Pb	mg/l	< 0,0005	< 0,0005	0,010 ⁴⁾
Cadmium	Cd	mg/l	< 0,0001	< 0,0001	0,0050 ⁴⁾
Mercury	Hg	mg/l	< 0,0002	< 0,0002	0,0010 ⁴⁾
Arsenic	As	mg/l	< 0,001	< 0,001	0,010 ⁴⁾
Pesticides, total		mg/l	< <i>report limit</i> ⁵⁾	< <i>report limit</i> ⁵⁾	0,00050 ⁴⁾
Polyaromatic hydrocarbons total	PAH	mg/l	< 0,00005	< 0,00005	0,00010 ⁴⁾
Trihalomethanes, total	THM	mg/l	< 0,004	< 0,004	0,050 ⁴⁾
Sulphate	SO ₄	mg/l	46	48	100 ⁴⁾
Chloride	Cl	mg/l	14	19	100 ⁴⁾
Fluoride	F	mg/l	< 0,2	< 0,2	1,5 ⁴⁾
Ammonia	NH ₄	mg/l	0,07	0,07	0,50 ⁴⁾
Nitrite	NO ₂	mg/l	< 0,007	< 0,007	0,10
Total chlorine residual ²⁾	Cl ₂	mg/l	0,25	0,25	0,4
Microorganisms, 22°C, 3 diurnal		per ml	1	2	10
Slow-growing bacteria, 22°C, 7 diurnal		per ml	2	2	5000 ⁴⁾
Coliform bacteria, 35°C		per 100 ml	< 1	< 1	<i>detected</i>
Escherichia coli		per 100 ml	< 1	< 1	<i>detected</i>
Clostridium perfringens		per 100 ml	< 1	< 1	<i>detected</i> ⁴⁾

The results are mean annual values. Basic analyses are made several times a week. Additional analysis are carried out twice a year. The sign "<" is used to illustrate "less than".

1) Limits for acceptable values water without remarks in drinking, according to the Swedish regulation SLV FS 2001: 30 and changes in legislation LIVSFS 2017:2.

2) During the colder part of the year a lower dosage of disinfectant is used, giving a chlorine residual in the outgoing drinking water of 0,2 mg Cl₂/l. During the warmer part of the year, the chlorine residual is 0,3 mg Cl₂/l.

3) Based on the relationship between TOC and oxidizability. Corresponds to a oxidizability of 4,0 mg O₂/l, which is the limit according to Swedish regulation.

4) Limit at consumer. No limit applies at the water treatment plant.

5) The reported value is below the limit with a good margin.