

# 2018 Annual Drinking Water System (DWS) Quality Report for Holland Landing DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O.Reg. 170/03

**Drinking Water System Number:** 220004046

**Drinking Water System Name:** Holland Landing DWS

**Drinking Water System Owner:** The Regional Municipality of York

**DWS Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III

**Reporting period:** Jan 1, 2018 - Dec 31, 2018

## **The Holland Landing DWS serves approximately 9740 people**

(Population is a year-end forecasted estimate based on Statscan census data, and building permits)

This annual report is available to the public at no charge on the Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

## **Summary report required under O.Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Environmental Services Department  
17250 Yonge Street, Newmarket ON  
and online, at [york.ca/drinkingwater](http://york.ca/drinkingwater)

## **List all Drinking Water Systems which receive their drinking water from the Holland Landing DWS:**

Holland Landing/Queensville/Sharon Distribution System (260001747)

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public Requests at any time

## **Description of the Holland Landing DWS**

### **Introduction**

Holland Landing is located in western East Gwillimbury. Local groundwater is naturally high in minerals, and is blended with Lake Ontario water and connected groundwater systems from the York DWS. York Region operates the water supply, and the Town of East Gwillimbury maintains water quality and distributes it to users. The Province governs the Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### **Raw water source**

Groundwater

### **Profile of water in distribution system**

Groundwater

### **Water treatment description**

Holland Landing DWS includes two wells, two storage facilities (elevated tanks), and one booster pumping station. Chlorine provides disinfection, and chloramine provides a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system**

Chlorine gas; Ammonia solution; Sodium Silicate

### **Brief description and breakdown of monetary expenses incurred**

\$72,461 for general maintenance and repair and pumping station upgrades.

**Notices submitted under Section 18(1) of the Safe Drinking Water Act or Section 16-4 of O.Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

There were no reported adverse water quality incidents or observations of improper disinfection that occurred in the Holland Landing DWS during 2018

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**Microbiological testing completed under Schedule 10 of O.Reg. 170/03**

\*For additional distribution samples collected under Schedule 10, refer to the local municipality

Test Parameter	Sample Source	Count Of Samples	Count Of Presence
E. coli	Raw	102	0
	Treated	98	0
Heterotrophic Plate Count	Treated	98	22
Total Coliforms	Raw	102	11
	Treated	98	0

**Operational testing completed under Schedule 7 of Regulation 170/03 during this reporting period**

\*8,760 is used as the number of samples for continuous analyzers

Test Parameter	Test Units	Continuous Sample Count	Average	Minimum	Maximum
Combined Chlorine	mg/L	8,760	2.25	0.43	3.46
Turbidity (Treated)	NTU	8,760	0.08	0.01	5.00

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (“<”) indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

Test Parameter	Test Units	No. of Samples	Average	Minimum	Maximum
Fluoride	mg/L	12	0.207	0.19	0.22
Haloacetic Acids	mg/L	4	0.011	<0.008	<0.02
Nitrate	mg/L	12	0.500	<0.5	<0.5
Nitrite	mg/L	12	0.050	<0.05	<0.05
Sodium	mg/L	3	19.425	17.8	20.3
Trihalomethanes	mg/L	6	0.013	0.0074	0.0195

\*Lead testing under Schedule 15.1 is conducted by the Local Municipality - refer to Local Municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes

**Organic and inorganic parameter(s) that exceeded half the standard prescribed in Schedule 2 of O.Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
 There were no parameters that exceeded half the standard indicated above for the Holland Landing DWS during 2018

**Summary of inorganic parameters tested pursuant to Schedule 23 of O.Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to five decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

Test Parameter	No. of Samples	Test Units	Average	Minimum	Maximum	ODWS Limit
Antimony	3	mg/L	0.00050	<0.0005	<0.0005	0.006
Arsenic	3	mg/L	0.00050	<0.0005	<0.0005	0.01
Barium	3	mg/L	0.16400	0.152	0.185	1
Boron	3	mg/L	0.05190	0.0508	0.0538	5
Cadmium	3	mg/L	0.00050	<0.0005	<0.0005	0.005
Chromium	3	mg/L	0.00050	<0.0005	<0.0005	0.05
Mercury	3	mg/L	0.00005	<0.00005	<0.00005	0.001
Selenium	3	mg/L	0.00050	<0.0005	<0.0005	0.05
Uranium	3	mg/L	0.00050	<0.0005	<0.0005	0.02

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**Summary of organic parameters tested pursuant to Schedule 24 of O.Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

Test Parameter	No. of Samples	Test Units	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	2	mg/L	0.0003	<0.0003	<0.0003	0.014
1,2-(o-dcb) Dichlorobenzene	2	mg/L	0.0001	<0.0001	<0.0001	0.2
1,2-Dichloroethane	2	mg/L	0.0001	<0.0001	<0.0001	0.005
1,4-(p-dcb) Dichlorobenzene	2	mg/L	0.0001	<0.0001	<0.0001	0.005
2-methyl-4-chlorophenoxyacetic acid	2	mg/L	0.0050	<0.005	<0.005	0.1
2,3,4,6-Tetrachlorophenol	2	mg/L	0.0005	<0.0005	<0.0005	0.1
2,4-Dichlorophenol	2	mg/L	0.0007	<0.0007	<0.0007	0.9
2,4-dichlorophenoxyacetic acid (2,4-D)	2	mg/L	0.0008	<0.0008	<0.0008	0.1
2,4,6-Trichlorophenol	2	mg/L	0.0005	<0.0005	<0.0005	0.005
Alachlor	2	mg/L	0.0004	<0.0004	<0.0004	0.005
Atrazine + N-dealkylated metabolites	2	mg/L	0.0002	<0.0002	<0.0002	0.005
Azinphos-methyl	2	mg/L	0.0003	<0.0003	<0.0003	0.02
Benzene	2	mg/L	0.0001	<0.0001	<0.0001	0.005
Benzo(a)pyrene	2	mg/L	0.0000	<0.00001	<0.00001	0.00001
Bromoxynil	2	mg/L	0.0004	<0.0004	<0.0004	0.005
Carbaryl	2	mg/L	0.0030	<0.003	<0.003	0.09
Carbofuran	2	mg/L	0.0030	<0.003	<0.003	0.09
Carbon Tetrachloride	2	mg/L	0.0002	<0.0002	<0.0002	0.005
Chlorpyrifos	2	mg/L	0.0002	<0.0002	<0.0002	0.09
Diazinon	2	mg/L	0.0002	<0.0002	<0.0002	0.02
Dicamba	2	mg/L	0.0004	<0.0004	<0.0004	0.12
Dichloromethane	2	mg/L	0.0010	<0.001	<0.001	0.05
Diclofop-methyl	2	mg/L	0.0004	<0.0004	<0.0004	0.009
Dimethoate	2	mg/L	0.0003	<0.0003	<0.0003	0.02
Diquat	2	mg/L	0.0010	<0.001	<0.001	0.07
Diuron	2	mg/L	0.0030	<0.003	<0.003	0.15
Glyphosate	2	mg/L	0.0250	<0.025	<0.025	0.28
Malathion	2	mg/L	0.0002	<0.0002	<0.0002	0.19
Metolachlor	2	mg/L	0.0002	<0.0002	<0.0002	0.05
Metribuzin	2	mg/L	0.0003	<0.0003	<0.0003	0.08
Monochlorobenzene	2	mg/L	0.0001	<0.0001	<0.0001	0.08
Paraquat	2	mg/L	0.0010	<0.001	<0.001	0.01
Pentachlorophenol	2	mg/L	0.0004	<0.0004	<0.0004	0.06
Phorate	2	mg/L	0.0002	<0.0002	<0.0002	0.002
Picloram	2	mg/L	0.0007	<0.0007	<0.0007	0.19
Polychlorinated Biphenyls (PCBs)	2	mg/L	0.0000	<0.00002	<0.00002	0.003
Prometryne	2	mg/L	0.0002	<0.0002	<0.0002	0.001
Simazine	2	mg/L	0.0002	<0.0002	<0.0002	0.01
Terbufos	2	mg/L	0.0002	<0.0002	<0.0002	0.001
Tetrachloroethylene (perchloroethylene)	2	mg/L	0.0003	<0.0003	<0.0003	0.01
Triallate	2	mg/L	0.0040	<0.004	<0.004	0.23
Trichloroethylene	2	mg/L	0.0001	<0.0001	<0.0001	0.005
Trifluralin	2	mg/L	0.0000	<0.000006	<0.000006	0.045
Vinyl Chloride	2	mg/L	0.0002	<0.0002	<0.0002	0.001