2013 Water Quality Summary

Drinking water is strictly regulated in the Northwest Territories (NWT) to ensure it is of good quality and safe for people to drink. The NWT has pristine source water. From source water to tap, all levels of government have measures in place to ensure drinking water is safe. This ranges from land and water use restrictions in watersheds to drinking water treatment, water quality testing and monitoring, public health inspections, circuit rider training, and water plant operator training and certification. The Public Health Act and Water Supply System Regulations set the standards for drinking water systems. The Act and Regulations adopt as regulation the national Guidelines for Canadian Drinking Water Quality, as the standard for drinking water quality in the NWT.

All drinking water is treated in a water treatment plant to ensure it is safe. Treatment methods differ in part depending on the quality of the source water. For example, the need for filtration and type of filtration system may differ depending on the turbidity level (amount of cloudiness from particles). Treatment methods can include filtration, disinfection with UV light, and disinfection with chlorine. In all cases, drinking water must be treated with chlorine to ensure it is disinfected. To be considered safe, a minimal level of chlorine is also required throughout the water distribution system to maintain protection from bacteria and viruses. Sampling, testing, and monitoring of drinking water happens before it enters the water treatment plant, in the treatment plant, when the water leaves the plant, and in the community.

The most important way of monitoring water quality is through daily tests for chlorine and turbidity in the treated water. These tests are done at the water treatment plant. If these results are satisfactory and the treatment plant is operating as designed, the water will be considered safe. The weekly log sheets for chlorine and turbidity test results are an important tool used by Environmental Health Officers (EHOs) with Health and Social Services to ensure that community drinking water is safe for consumption.

As a secondary means to verify that the water is safe, bacteriological samples are collected weekly by the water treatment plant operator or designated person in the community. These samples are shipped to a laboratory, or sometimes tested on site if the proper equipment and training are in place.

In addition, both raw water and treated water samples are collected yearly for complete chemical and physical analysis. Samples are collected either by the EHO with the water treatment plant operator, or by trained local staff without the assistance of the EHO.

Community governments are responsible for ensuring the minimum required sampling is completed. EHOs monitor that the required sampling is done. Where a community fails to submit the required samples or test results, the water treatment plant operator is notified by the EHO. If a bacteriological sample is missed it is considered a violation; however, it doesn't mean the water is unsafe, but only that there was no secondary verification test. The EHO confirms if the chlorine and turbidity tests were done and addresses any deficiencies. Deficiencies are sometimes the result of flight interruptions, bad weather, or other legitimate reasons. Unexplained deficiencies are followed-up in writing by fax, e-mail, or letter from the EHO to the Senior Administrative Officer.

The Office of the Chief Public Health Officer has the authority to issue a Drinking Water Advisory if the community's drinking water is unsafe to drink, or if it cannot be confirmed it is safe to drink.

A summary of the sampling that took place in 2011, 2012, and 2013 is provided in the following table. Table cells highlighted in green indicate that the community has met their regulatory requirements for sampling. Yellow cells highlight the need for continued effort in order to meet the sampling requirements.

If you have any concerns with the quality of your community's drinking water please contact your regional EHO at:

South Slave
Hay River Office
Tel.: 867-874-6596
Fax: 867-874-7198

North Slave/Deh Cho
Yellowknife Office
Tel.: 867-669-8979
Fax: 867-669-7517

Beaufort Delta
Inuvik Office
Tel.: 867-777-4841
Tel.: 867-777-4840
Fax: 867-777-4842

Community	Water Source	Certified Operator	Treated Water Bacteria Tests (% of compliance, 48 required, 216 for Yellowknife)			Treated Water Chemical Tests (1 required)			Community	Plant Classification	Water Treatment Process
			2013	2012	2011	2013	2012	2011			
Aklavik	Mackenzie River (Peel Channel)	✓	100%	**100%**	88%	✓	✓	✓	**Aklavik**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Colville Lake	Colville Lake	×	**63%*	**35%*	**7%*	✓	✓	✓	**Colville Lake**	Small System	Cartridge Filtration, Chlorination, Storage
Déljne	Great Bear Lake	✓	100%	100%	100%	✓	✓	✓	**Déljne**	Small System	Cartridge Filtration, UV, Chlorination, Storage
Dettah	Yellowknife River		59%	27%	27%	N/A			**Dettah**	N/A	Chlorination
Behchokǫ̀ (Edzo)	West Channel	✓	77%	100%	100%	✓	✓	✓	**Behchokǫ̀ (Edzo)**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Behchokǫ̀ (Rae)	Marian Lake	✓	77%	100%	100%	✓	✓	✓	**Behchokǫ̀ (Rae)**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Enterprise	Town of Hay River		N/A						**Enterprise**	N/A	see Town of Hay River
Fort Good Hope	Mackenzie River	✓	100%	100%	95%	✓	✓	✓	**Fort Good Hope**	Class I	Membrane filtration, Chlorination and Storage
Fort Liard	Groundwater Well	✓	100%	100%	100%	✓	✓	✓	**Fort Liard**	Class I	Potassium Permanganate Assisted Greensand Filtration, Softening, Chlorination, Storage
Fort McPherson	Deep Water Lake	✓	100%	100%	100%	✓	✓	✓	**Fort McPherson**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Fort Providence	Mackenzie River	✓	100%	100%	100%	✓	✓	✓	**Fort Providence**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Fort Resolution	Great Slave Lake	✓	100%	95%	92%	✓	✓	✓	**Fort Resolution**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Fort Simpson	Mackenzie River	✓	100%	100%	100%	✓	✓	✓	**Fort Simpson**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Fort Smith	Slave River	✓	100%	100%	100%	✓	✓	✓	**Fort Smith**	Class III	Upflow Clarifier, Filtration, Chlorination, Storage
Gamètì	Rae Lake	✓	36%	100%	100%	✓	✓	✓	**Gamètì**	Small System	Chlorination
Hay River	Great Slave Lake	✓	100%	100%	100%	✓	✓	✓	**Hay River**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Storage and Chlorination
Hay River Reserve	Town of Hay River	N/A	48%	56%	100%	N/A			**Hay River Reserve**	Small System	See Town of Hay River + Rechlorination
Inuvik	Mackenzie River and 3 mile Lake/Hidden Lake	✓	100%	100%	100%	✓	✓	✓	**Inuvik**	Class I	Sand Filtration, Chlorination, Flouride, Storage
Jean Marie River	Mackenzie River	✓	100%	100%	88%	✓	✓	×	**Jean Marie River**	Class I	Membrane Filtration, Chlorination, and Storage
Kakisa	Town of Hay River	N/A	N/A						**Kakisa**	N/A	see Town of Hay River
Łutselk'e	Great Slave Lake	✓	35%	56%	21%	✓	✓	✓	**Łutselk'e**	Class I	Membrane Filtration, Chlorination and Storage
Nahanni Butte	Groundwater Well	✓	100%	81%	25%	✓	✓	×	**Nahanni Butte**	Class I	Potassium Permanganate Assisted Greensand Filtration, Softening, Chlorination, Storage
Norman Wells	Mackenzie River	✓	100%	100%	100%	✓	✓	✓	**Norman Wells**	Class II	Conventional (Coagulation, Flocculation, Sedimentation and Filtration), Chlorination and Storage
Paulatuk	New Water Lake	×	100%	100%	100%	✓	✓	✓	**Paulatuk**	Small System	Chlorination
Sachs Harbour	DOT Lake	×	87%	92%	73%	✓	✓	✓	**Sachs Harbour**	Small System	Cartridge Filtration, Chlorination
Trout Lake	Trout Lake	✓	100%	100%	18%	✓	✓	×	**Trout Lake**	Class I	Membrane filtration, Chlorination and Storage
Tsiigehtchic	Tso Lake	✓	100%	100%	94%	✓	✓	✓	**Tsiigehtchic**	Class I	Nano-Filtration, Chlorination, Storage
Tuktoyaktuk	Kudlak Lake	✓	100%	89%	100%	✓	✓	✓	**Tuktoyaktuk**	Class I	Pressure Filtration, UV, Chlorination, Storage
Tulita	Great Bear River	✓	100%	70%	100%	✓	✓	✓	**Tulita**	Class I	Micro-Filtration, Chlorination, Storage
Ulukhaktok	RCAF Lake	✓	95%	75%	100%	✓	✓	✓	**Ulukhaktok**	Small System	Pre-Filter, UV, Chlorination, Storage
Wekweètì	Snare Lake	✓	34%	90%	81%	✓	✓	✓	**Wekweètì**	Small System	Chlorination
Whatì	Groundwater Well	×	100%	100%	100%	✓	✓	✓	**Whatì**	Class I	Potassium Permanganate Assisted Greensand Filtration, Softening, Chlorination, Storage
Wrigley	Groundwater Well	×	85%	100%	7%	✓	✓	✓	**Wrigley**	Small System	Storage and Chlorination
Yellowknife	Yellowknife River	✓	100%	100%	100%	✓	✓	✓	**Yellowknife**	Class I	Chlorination, Fluoridation, Storage

Meets requirements **Does not meet requirements** **** Boil Water Advisory***