

Waterworks Construction Permit Process – New Water Systems

The table below outlines the usual steps in the construction of a new water supply system. Under the *Drinking Water Protection Act*, every water system requires an **Operating Permit** before providing water service to users. A **Construction Permit** from Northern Health is required for commissioning of a new water system and also for every structural or mechanical change to an existing water system that may occur over time, but not including routine maintenance. Construction, installation, alteration or extension of any part of a water supply system without a valid CP is an offence under s45 of the *Act*.

Construction Permit (CP) contact NH Public Health Engineer (PHE)		Operating Permit (OP) contact NH Drinking Water Officer (DWO)
Steps 		
1. IDEA – the owner identifies a need for water supply.		
2. SOURCE – the owner decides on a proposed source of water for the system – usually surface water from a lake or stream, or groundwater from a well.	←	Owner should contact the DWO to advise on required analyses, sampling protocols, etc.
3. SAMPLES – the owner collects a first sample of water from the source for a complete suite of physical-chemical and bacteriological analyses – this allows a treatment system to be designed.		At this time, the owner needs to complete a WATER SYSTEM APPLICATION
4. DESIGNER – the owner may hire a professional engineering firm or water system design specialist.		The Operating Permit (OP) process for a Water System can move forward in parallel with the Construction Permit process. For a new water system, the OP will not usually be issued until the CP process is completed. Key elements in the OP include: • OPERATOR TRAINING – consistent with the level of complexity of the water system • ROUTINE SAMPLING – locations, parameters and frequency • CONTINGENCY & EMERGENCY RESPONSE PLAN
5. DRAWINGS – the owner or designer prepares location map, site plans and treatment system schematics to explain the proposed water system design.		
6. CONSTRUCTION PERMIT APPLICATION – the designer applies to Northern Health PHE for a permit for construction of waterworks, together with all construction plans and equipment specifications, and a copy of the source water chemical analyses.		
7. APPROVAL OF SOURCE – the DWO reviews the source water chemistry and decides whether it is acceptable.	←	
8. CONSTRUCTION PERMIT REVIEW – PHE reviews the application against regulatory requirements and Northern Health policy. Allowing for design modifications, this step usually requires 60 days.		
CONSTRUCTION PERMIT ISSUED – PHE issues construction permit, with conditions.		
9. CONSTRUCTION * – installation of treatment, distribution, and storage facilities as per Construction Permit.	←	DWO may optionally inspect the works during construction
10. DISINFECTION – following construction, all new or altered works must be disinfected, lab results from confirmatory samples sent to DWO.	→	DWO receives confirmation that the equipment and distribution pipes are free of bacterial contamination
END OF CONSTRUCTION PERMIT PROCESS		OPERATING PERMIT ISSUED – DWO issues operating permit, with conditions.

* Permits and approvals from other government agencies may be required before construction may begin.

WATER SUPPLIER – the system owner is classified as a water supplier under the *Drinking Water Protection Act*, and provides potable water to users in accordance with the *Act* and all terms of the Operating Permit.

