

## **APPLICATION FOR APPROVAL TO ESTABLISH, EXTEND, RENOVATE, OR ALTER A PUBLIC WATER SUPPLY—*Part 2—Proposed Treatment Train Form***

This application form details the information to be submitted by any person wishing to establish, extend, renovate or alter a public water supply. Approval for establishment and/or changes of a public water supply must be obtained in writing from the Regional Health Authority. This application form has been prepared in accordance with Section 5 of *The Health Hazard Regulations, 2002*.

This application form and additional documents must be completed and forwarded to the Population Health Unit, as noted above, **at least one month** prior to the planned construction/operation of a new or significantly altered public water supply. Water source and manufacturer’s technical information on equipment design and operations should be attached to the application. Further information may be requested by the Regional Health Authority. **This application form focuses on the proposed treatment system to determine if potential areas of concern are addressed from PART 1. This form is PART 2 of 2.**

Please ensure that each section of the application is completed in a concise and clear manner. Fill in areas that apply only to your system.

### **Public Water System Approval of Application Process Overview**

The approval process for public water systems is separated in two parts. Both parts need to be approved prior to construction and operation.

**PART 1:** Administrative and Source Assessment —> Identify any potential chemicals/pathogens of concern

**PART 2: Proposed Treatment Train Assessment** —> **Determining if above issues in Part 1 are addressed**

The proposed water system treatment train must be **designed** to:

1. Address any issues or areas of potential concern identified in the **Letter of Assessment** sent to you from the Population Health Unit office AND
2. Meet the water treatment objectives as directed and determined by your district public health inspector as noted below:

Unsecured Ground Water Source or Any Surface Water Source:	4 log reduction of Virus 3 log reduction of <i>Cryptosporidium parvum</i> cysts 3 log reduction of <i>Giardia lamblia</i> cysts 2 forms of treatment (minimally) Less than 1 NTU of Turbidity 0 Coliforms for both Total and <i>E.coli</i>
Secured Ground Water Source:	4 log reduction of Virus Less than 1 NTU of Turbidity 0 Coliforms for both Total and <i>E.coli</i>

### **Section V— Source Assessment Results—as noted in Letter of Assessment**

Surface water source  | Ground water source:  Secure  Insecure

Chemicals of potential concern: \_\_\_\_\_

Pathogens of potential concern: \_\_\_\_\_

### **Section VI— Designer Contact Information**

1. Applicant Facility Name: \_\_\_\_\_
- Construction Application Details \_\_\_\_\_
- Name of Consultant / Engineer / Designer / Supplier \_\_\_\_\_
- Mailing Address/Postal Code \_\_\_\_\_
- Phone Number \_\_\_\_\_
- Estimated cost of project: \_\_\_\_\_

2. Please give the proposed project schedule and construction start date: \_\_\_\_\_

3. Description of Works (Brief description of the works to be constructed altered or decommissioned) :

New  Existing  Renovations  Extension

4. General and detailed plans of the proposed works:

Are Enclosed With The Application

Will Be Forwarded By (Date): \_\_\_\_\_

Signed By A Professional Engineer

Signed By A Professional Water Vendor

Timeline of Completion of Proposed Works

**Section VII— Water Infrastructure Technical Data—Check all that apply and fill in as much detail where applicable.**

1. What water treatment units are proposed? ( Attach technical data sheets if available)

*Pre-Treatment:*

- Aeration
- Coagulation/ Flocculation
- Softening
- Algae Control
- Iron Removal
- Distillation
- Other: \_\_\_\_\_
  - Sedimentation
  - Oxidation (Chemical)

*Filtration:*

- Biological Filtration (SS)
- High Rate Sand
- Cartridge
- Reverse Osmosis
- Other: \_\_\_\_\_
  - Diatomaceous Earth (DE)
  - Activated Carbon

*Disinfection:*

- Sodium Hypochlorite
- Calcium Hypochlorite
- Chlorine Gas
- Chlorine dioxide
- Ozonation
- Ultraviolet Light
- Other: \_\_\_\_\_

*Back Flow Prevention Devices:* Are they in place  Yes- location(s) \_\_\_\_\_  No

*Water Metering/Flow Meter:* Are they in place?  Yes  No

What is the estimated daily flow for the entire water system: \_\_\_\_\_

	First Location	Second Location	Third Location
Meter Location ( Raw Water, Pre-filtration, distribution, etc)			
Units (Imperial gallons/ Cubic Meter/ Other)			

**Pre-Treatment**

**Pre-oxidation**  Manufacturer Specification Sheet Attached

Description/Model	
Third Party Certification Standard	<input type="checkbox"/> NSF _____ <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____

**Softener**  Manufacturer Specification Sheet Attached

Description/Model	
Third Party Certification Standard	<input type="checkbox"/> NSF _____ <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____

**Other**  Manufacturer Specification Sheet Attached

Description/Model	
Third Party Certification Standard	<input type="checkbox"/> NSF _____ <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____

**Filtration**

<b>Cartridge Filtration</b>		Number: _____		<input type="checkbox"/> Manufacturer Specification Sheet Attached	
Filter #	Description/Model	Filter Fabric	Max Flow	Pore Size (Nominal/Absolute)	Third Party Certification Standard (i.e. NSF, CSA,..etc)

<b>Other Filters &amp; Methods</b>		Number: _____		<input type="checkbox"/> Manufacturer Specification Sheet Attached	
Type of Filter (Check One)	<input type="checkbox"/> Pressure <input type="checkbox"/> Gravity <input type="checkbox"/> Ultrafiltration <input type="checkbox"/> Nanofiltration <input type="checkbox"/> Microfiltration <input type="checkbox"/> Grit <input type="checkbox"/> Reverse Osmosis				
Filtration Method (Check One)	<input type="checkbox"/> High Rate Sand <input type="checkbox"/> Slow Sand <input type="checkbox"/> Diatomaceous Earth <input type="checkbox"/> Multi-media <input type="checkbox"/> Membrane				
Description & Method	Filter Media	Surface Area (m <sup>2</sup> or ft <sup>2</sup> )	Filtration Rate (m/h or gpm/ft <sup>2</sup> )	Third Party Certification Standard (i.e. NSF, CSA)	

**Disinfection**

<b>Disinfection Chemical/Method</b>		<input type="checkbox"/> Manufacturer Specification Sheet Attached			
<input type="checkbox"/> Sodium Hypochlorite <input type="checkbox"/> Calcium Hypochlorite <input type="checkbox"/> Chlorine Gas <input type="checkbox"/> Chlorine dioxide <input type="checkbox"/> Ozonation <input type="checkbox"/> Other: _____					
Third Party Certification Standard			<input type="checkbox"/> NSF 60 <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____		
Chemical/Method (state Manual vs. Chlorinator)	Brand and commercial concentration strength	Disinfection Contact Time prior to entering distribution (ozone not included)	Proposed Dosage of Chemical	Dosing Equipment Model Number	

<b>Ultraviolet Light</b>		<input type="checkbox"/> Manufacturer Specification Sheet Attached	
Description/Model			
Third Party Certification Standard	<input type="checkbox"/> NSF 55A <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____	<input type="checkbox"/> Class A	
Minimum Dosage (mJ/cm <sup>2</sup> ) for Maximum flow rate			
Max certified flow (L/min)			
Manufacturer Pathogenic Reduction Claims			

*Operator is required to submit UV water quality results to show that water entering the UV light equipment meets the manufacturer's requirements*

**Other**

<b>Other Treatment</b>		<input type="checkbox"/> Manufacturer Specification Sheet Attached
Description/Model		
Third Party Certification Standard	<input type="checkbox"/> NSF _____ <input type="checkbox"/> CSA _____ <input type="checkbox"/> Other _____	

**Disposal and Handling of Wastewater from treatment system**

Possible waste streams include but are not limited to waste, filter backwash, settling tank sludge, etc.

Type of waste stream	Method of disposal

**Section VIII— Water Piping and Storage System Technical Data**

1. Is there a distribution system present/proposed?  Yes \_\_\_\_\_ (# of service connections)  No
2. Where one of the items listed below is present, check the box and provide the specific information

<input type="checkbox"/> <b>Raw Water Storage</b>		
Location	Approximate useable capacity (L)	How often is it filled and when

Are the raw water reservoirs aerated?  Yes \_\_\_\_\_ (method of aeration)  No

Method of algae control if any \_\_\_\_\_

<input type="checkbox"/> <b>Raw, Treated, and Distribution Water Transmission Pipes</b>			<input type="checkbox"/> Manufacturer Specification Sheet Attached
Pipe diameter (in or mm)	Approximate length (ft or m)	Pipe Material	Elevated, Surface or Underground

<input type="checkbox"/> <b>Pressure Tank</b>		
Model	Capacity (L/s)	Manufacturer Data Sheet Attached
		<input type="checkbox"/>

<input type="checkbox"/> <b>Treated Water Storage Reservoir</b>							
#	Elevated, Surface, Underground, Pressurized or Gravity	Construction material	Baffling Factor	Baffled Tank or Non-baffled Tank?	Tanks in Series or Parallel	Volume (L)	Location

<input type="checkbox"/> <b>Raw, Treated, and Emergency Water pumping</b>			
Model	Power Rating (kw)	Capacity (L/s)	Manufacturer Data Sheet Attached
			<input type="checkbox"/>

Please describe any location where a sewer line and water line are within 10 meters of each other: \_\_\_\_\_

\_\_\_\_\_

**TREATMENT TRAIN DIAGRAM—Attached**

Please attach copies of professional drawings by a Professional Engineer/Reputable Water Vendor. Attach additional sheets if extra space is required. Please indicate the following items (if applicable) on the treatment train diagram of the proposed and existing system below: all equipment and treatment devices, detailed equipment plan indicating all types of treatment devices and operation equipment, including their intended uses, water distribution lines, and hydrants/flushouts, and their connections to all water users. Be sure to indicate the direction path of flow through the system.

**CLEANING AND MAINTENANCE SCHEDULE**

Please attach the cleaning and maintenance schedule of for the all equipment and chemicals.

**Signature**

<b>Printed Name of Person Signing</b>	<b>Title</b>
<b>Address</b>	<b>Postal Code</b>
<b>Telephone Number</b>	<b>Fax Number</b>
<b>Date of Application</b>	<b>Signature</b>

**\*\*\*Please do not INSTALL, CHANGE OR ALTER any part of a Public Water System until the source assessment and treatment train has been submitted for review AND has received approval from the local health authority as per Section 5(1) of *The Health Hazard Regulations*, :**

**“No person shall establish, extend, renovate, or alter a public water supply unless the owner or operator has obtained written approval to do so from the local authority”\*\*\***

*A Public Health Inspector will respond to the applicant within 20 business days upon receiving this application.*

The completed application and any questions about this application form or part of approval process, can be submitted to your local health inspector by:

Phone: **306-425-8512**

In Person: **1016 La Ronge Avenue, La Ronge, SK S0J 1L0**

Email: [healthinspectors@pophealthnorthsask.ca](mailto:healthinspectors@pophealthnorthsask.ca)

Mail: **PO Box 1920 La Ronge, SK, S0J 1L0**