

EPB 243 Quality Assurance Quality Control Policy Lauman's Landing Waterworks

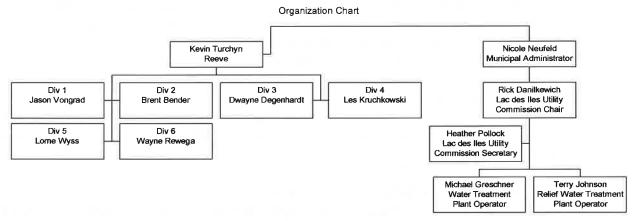
Created December 2012 Updated February 2020

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2. Organizational Structure

In this section, an organizational chart for the waterworks and associated administration should be inserted. The roles and responsibilities of each person identified in the organization structure chart should also be provided. In addition, contact information for members listed below should be included. A member of Council should be appointed as carrying the responsibility for reporting to the elected structure on the operation and condition of the works and on monthly review of records as required by section 41(2) of *The Waterworks and Sewage Works Regulations*.



Waterworks Operations, Management and Administration

Reeve

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RM Council

Div 1: Jason Vongrad, RR1 Site 2 Box 17 Goodsoil, SK S0M 1A0

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Div 6: Wayne Rewega, Box 218, Pierceland, SK S0M 2K0

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Municipal Administrator

Nicole Neufeld Cell: 306-240-6985

Lac des Iles Utility Commission Chair

Rick Danilkewich, Box 335, Goodsoil, SK S0M 1A0

Cell: 780-719-7106

Lac des Iles Utility Commission Secretary

Heather Pollock Office 306-839-2066

Water Treatment Operator

Michael Greschner, Box 293, Goodsoil, SK S0M 1A0

Cell: 306-238-7979

Water Treatment Relief Operator

Terry Johnson, Box 275, Loon Lake, SK S0M 1L0

Cell: 306-837-7612

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- Conducts tours of the waterworks and communicates with the public on issues associated with water quality
- □ Orders chemicals, repair parts and tools
- □ Load, unload and store water treatment chemicals
- □ Follows safety rules for plant operations
- Overall responsibility for the day to day operation of the waterworks
- □ Develops operational and maintenance protocols and plans
- □ Arranges for and provides annual notification to consumers served by the waterworks on the quality of drinking water provided and on sample submission compliance. Prepares a report to Council on the state of drinking water on an annual basis.

The role of the Water Distribution System Operator includes

- □ Periodic flushing or swabbing of the distribution system
- □ Locate and repair water leaks and operates, maintains and repairs valves and hydrants
- Collects and transports routine water samples from the distribution system and ensures proper packaging and shipment to the laboratory
- □ Performs repair work while ensuring safety procedures for the works site, traffic and the public are maintained
- Disinfects repaired or new sections of pipe and collects the necessary water samples
- Maintains distribution system plans and maps
- □ Cleans, disinfects and maintains reservoirs or other storage systems
- Operates and maintains any pumping equipment or facilities remote from the main water treatment plant as necessary
- □ Locates and eliminates cross-connections or potential cross-connections

3. Operations and Maintenance Protocol

Operation of the community waterworks will be performed in accordance with design specifications and standard operating protocols of the waterworks industry. Further detail regarding standard operating procedures, range of operation and chemical feed, maintenance practices and intervals are outlined below. (Note: Persons preparing this QA/QC protocol will have to alter and complete the sections below to fit the operation of their waterworks. Due to the differing nature of waterworks across the province, by necessity, this template is general in nature.)

Waterworks Operation/Maintenance Protocol Template

System Design Capacity (m³/day or L/s): 163 m³/day

Well(s)

Number of wells: one

Pump maintenance/change-out: every 5 years or as needed Well/pump service disinfection: every 5 years or as needed

Wellhead protection inspection: weekly
Output metering yes
Output meter recording daily

Pretreatment - Method

Cartridge Filtration 1 micron filters (8)

Media Replacement as needed

PreTreat Plus – 0100 Dosage rate: 1.39L/hr

The RM of Beaver River #622 will conduct daily free chlorine residual monitoring of drinking water entering the distribution system and turbidity monitoring at each filter as required by regulation, permit or ministers order issued by WSA. The government official who is responsible for regulation of the waterworks will be advised of any failure to meet a free-chlorine residual of at least 0.1 mg/L for water entering the distribution system as well as any exceedance of turbidity levels as required by operational permit, minister's order or regulatory requirement. Additionally, The RM of Beaver River #622 will advise the government official who is responsible for regulation of the waterworks of any failure of the disinfection system or any other upset to the water treatment process, operation or distribution system concern in accordance with good practice or the emergency response plan – technical action plans for the waterworks.

Operational Monitoring Plan

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Observational and measurement related operational monitoring of water quality and associated reporting requirements are established for the Lauman's Landing waterworks. Waterworks operators will monitor operational process in accordance with Table 1.

Table 1. Operational parameters – Examples

Operational Parameter	Treatment step/Process					
	Raw water	Coagulation	Sedimentation	Filtration	Disinfection	Distribution system
pН						Ø
Turbidity (or particle	Ø			X		
count)						
Temperature						
Dissolved Oxygen						
River/stream flow						
Total coliforms						X
Background bacteria						X
Colour						
Conductivity	\square			\square		☑
Alkalinity	\square					
Organic carbon	Ø					
Algae and algal toxins						
Chemical dosage				-	Ø	
Flow rate				Ø	Ø	
Headloss						
CT						
Disinfectant					X	X

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Record Review and Reporting

The assigned council member and the waterworks manager will review all monitoring results, records and operational logs on a monthly basis. If the review of the records or logs indicates that the quality of water from the waterworks has been adversely affected, the findings will be reported to the Water Security Agency as soon as reasonably practical after the report has been completed.

5. Emergency Response Planning

Standards for Emergency Response planning are available from the RM of Beaver River in the form of detailed information. This document provides guidance on Emergency contact listings, establishing a waterworks emergency planning taskforce, crisis management, notification and communication as well as technical action plans for a number of incidents which commonly occur.

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