



Town and R.M. Looking at Water Treatment Options

Is BioFiltration the Way to Go to Quench our Thirst?

By *Jaime Scharf*

With new requirements coming down the provincial pike and the prospect of continuing to baby and repair the town's current water treatment facility, Manitou and the R.M. of Pembina are looking at a new way of treating the drinking water. Currently the water is drawn from Mary Jane Reservoir via pipeline. It is then treated using a lime and soda softening technique, chlorinated, then accessible to homes here in town limits.

According to Manitou's mayor, Jake Goertzen, the R.M. and town will be looking at what is needed to improve our current facility while looking at other water treatment options as well. The goal is to find a cost-effective system that meets the requirements for water safety and providing the best water possible to community residents. They also would like to troubleshoot options for communities in the R.M. with poor water quality such as Darlingford and La Riviere. Possible options for resolving these problems could entail instituting local water treatment for those communities or allowing access to Manitou's established treated water. At this point, no firm details or plans have been made.

One of the systems that has been looked into is from Mainstream Water Solutions Inc. They have developed a filtration method that is free of chemicals and based on natural processes.

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Residents of the Town of Manitou and the R.M. of Pembina were invited to an open house at the water treatment plant last week, and had the opportunity to see a "BioFiltration" water treatment demonstration inside this portable trailer mounted unit.

Photos by Jaime Scharf

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This is especially beneficial with health concerns regarding the chemicals currently used to make drinking water safe. The system uses gravity to work; which has proved itself over time to be more reliable than a mechanical pump. The water flows from one tank to another filtering through sand and gravel while alternately encountering microorganisms, or "bugs", which help to break down organic material.

An onsite pilot project was performed in the month of August to determine whether the "BioFiltration" system would be appropriate filtration for Manitou's surface water. The preliminary report published by the company Mainstream Water Solutions Inc. confirms that Manitou's water would be "well within drinking water guidelines" using this purification process. The final draft of the report is awaiting some additional data before it can be published.

The Regina based company was established in 1989 and currently has 24 communities across western Canada using this system for their water treatment. It is a system that is appropriate for communities of 1,000 - 1,500 residents; its size being the limiting fac-

tor. The size of the filter tanks and the number of them required for adequate water filtration varies with the community needs, but tends to be quite large. This, in turn, affects the size of the building needed to contain the system bringing potential additional costs. According to company representative, Bruce Hanson, Manitou's current facility would need to be added onto if this system was implemented.

A benefit to BioFiltration is the low-cost of maintaining the system. Properly maintained filters need never be replaced and the maintaining is simply back-flushing the system periodically to clear waste products. The system is quite water conserving as well with 5-6% wastewater. Many systems range between 20-80% wastewater.

This water treatment system is also available to farms and rural yards with need for improved water quality. The filter tanks are able to fit into basements or outbuildings. Depending on your water needs, the system may run an individual \$5,000 - \$12,000 once installed and running. Interested persons may contact the dealer from Brandon, B&D Well Doctors with questions regarding home systems.