

Getting to the source of water woes



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Memorial University researchers explore solutions for sustainable rural drinking water systems

By Danette Dooley

Special to TC Media

The co-ordinator of the NL Rural Drinking Water Project describes a session recently held during a Municipalities Newfoundland and Labrador (MNL) symposium as a “great success.”

Sarah Minnes says invaluable data was collected during the one-hour “clicker” (multiple choice question and answer) session with over 200 participants.

Minnes is with the Environmental Policy Institute at Memorial University’s Grenfell Campus.

Kelly Vodden heads the project. She facilitated the session at the MNL symposium held May 10 in Gander. Graduate students Jeana Macleod and Candice Ramalho conducted the presentation while Minnes was busy taking notes.

The research project, which began in March, will identify the types of risks and challenges influencing drinking water quality and availability in rural areas of the province. Emphasis will be placed on communities of 1,000 residents or less, Minnes said during a recent telephone interview.

“This was our first time to get out there and talk to our target audience and to find out from them what’s happening on the ground and what are the real concerns the residents have,” Minnes said.

During the presentation, the researchers explained that in rural Newfoundland, watersheds provide drinking water supplies. Healthy drinking water supplies are dependent on healthy watersheds as well as on water policies, practices and infrastructure.

Minnes says people understand the importance of clean drinking water, particularly in light of the tragedy that unfolded in Walkerton, Ontario in 2000 when many people became ill and seven died from drinking E. coli-contaminated water.

There are many boil-water advisories in this province every year, Minnes said.

“People are aware there’s an issue that needs to be solved. A lot of people came up to us and said that clean drinking water is what they are concerned about the most.”

About the research

According to the study website (www.nlwater.ruralresilience.ca), the researchers will address knowledge gaps related to drinking water systems in the province by providing a current and comprehensive picture of drinking water issues in small communities from a multitude of angles.

They will also study current and past research and existing sources at federal, provincial and municipal levels, as well as research from other jurisdictions.

The four major components to be assessed include source water quality and quantity, public perception, awareness and demand, policy and governance and water distribution infrastructure and municipal water supply.

Minnes said dialogue with stakeholders will also be a key component for understanding the issues and coming up with solutions.

The website also notes that current water infrastructure in rural areas throughout the country is often outdated and no longer viable for the needs of the 21st century.

The study will examine the current condition of water infrastructure in rural Newfoundland and Labrador and what investments are needed to improve drinking water systems.

Seeking feedback

Presenting at the symposium was an opportunity for these researchers to hear from municipal leaders.

Over 90 per cent of the respondents noted that residents in their municipality get their drinking water from the municipal water supply, while 5.1 per cent said residents get their water from a private source. One per cent of respondents said residents often rely on springs for their drinking water.

Over 90 per cent of respondents noted that their municipality's disinfection and/or treatment facility is maintained on a regular basis while 3.9 per cent said that wasn't the case.

When asked what they consider the main barrier facing their municipalities' disinfection and/or treatment systems, over 40 per cent of respondents answered aging infrastructure and the increased need for funding for new or improved infrastructure.

In a news release dated April 12 announcing the opening of a new water treatment plant for Marystown, Municipal Affairs Minister Kevin O'Brien said since 2008, the provincial government has committed over \$50 million for 72 water treatment projects in Newfoundland and Labrador. The total commitment to these projects, including investments by municipalities and the federal government, is over \$114 million, he said.

Bonavista Mayor Betty Fitzgerald described the presentation by the university team as educational and said it touched on challenges many towns face.

"We have a water treatment plant here. It's only a small one and in order to get the one that the federal government is talking about now, it would cost too much money. We would never be able to afford to put it in place — unless there's other money coming from another source," Fitzgerald said when contacted by phone.

Springs not tested

According to Health Canada (2102), Canadian drinking water supplies are generally of excellent quality. However, as the researchers noted, water in nature is never pure as it picks up bits and pieces of everything it comes in contact with — from minerals to fertilizers.

Fitzgerald said it's important for people who get their drinking water from springs to remember that the water hasn't been treated.

"There are a lot of people going to springs and different wells to get their drinking water but if it's not tested they don't know what they're drinking."

The researchers acknowledge funding for the project from the Harris Centre — RBC Water Research and

Outreach Fund.

While it's well known that there's a deficit across the country when it comes to aging infrastructure, Minnes said, other solutions — in addition to more money — need to be developed on how to use the available resources.

The project, which is funded until June 2014, is a challenging one, she said.

“We need to sensitize all the information in Newfoundland and Labrador about water and water quality and, at the end of the day, if we can do that we can make tangible and realistic recommendations on future research and on how we can improve rural drinking water systems in Newfoundland and Labrador.”

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