Rural Drinking Water in Newfoundland and Labrador

Exploring Solutions for Sustainable Rural Drinking Water Systems

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About the Project

What are we trying to do and why?

Our Research Project





- Risks and challenges influencing drinking water quality and availability
- ♦ Emphasis on communities of 1,000 residents or less in NL
- ♦ What is working, factors for success, possible solutions and future research

Major Components of Research



(Annual Report, 2012)

- Source water quality and quantity
- Infrastructure and operations
- Policies and governance
- Public perception, awareness, and demand

How?

- ♦ Literature Review
- Media Scan
- Legislation and Policy Review (DPSIR)
 - Policy workshop
- Municipal Surveys and Consultations
- Case Studies





Kootenays East Kootenay Central Kootenay Kootenay Boundary Government of British Columbia, n.d. A STATE OF THE STA

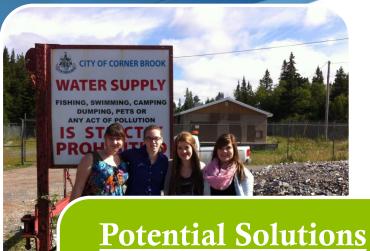
Major Challenges and Preliminary Identified Solutions

Source Water Quality & Quantity



Challenges

- Enforcement in **PPWSAs**
- Inter- municipal cooperation
- Citizen buy in/ ownership



- Mandatory watershed based source water protection
- Community based monitoring programs
- Proactive land use planning

Infrastructure & Operations

Source: Paula Dawe



Challenges

- Ageing infrastructure
- Asset management
- Uncertified water operators
- Unoccupied buildings and fish plant closures
- Full cost accounting



Potential Solutions

- Asset management plans and procedures
- Regional water operators
- Mandatory water operator certification
- Water metering/ conservation programs

Policy & Governance



Challenges

- Drinking Water Quality Index
- Frequent/long term BWAs
- Optional for municipalities/ LSDs to protect their public water supply area
- Unclear multi-level governance coordination



Potential Solutions

- Re-evaluation of the DWQI
- Expected length/severity of BWA provided to residents
- Greater involvement of municipal actors in provincial interdepartmental groups

Public Perception, Awareness & Demand

GAULTOIS

Water troubles

Many residents still without safe drinking water

By CLAYTON HUNT
Coaster P,

(any people in Gaultois have without a safe supply of sing water since early Feb-

coording to Denise Rose, a sher of the Gaultois town cil, the community's water lem, which began in early uary, is still ongoing and that y residents still don't set to a safe supply of dr

aear has gone on far were promised a m m by government the de approximately of safe drinking v said Ms. Rose. "A we have submitter work to go string assistance for This problem sho solved by now." "No community in the province should be without safe drinking water, but that's the situation many of our residents have been facing since early February."

> - Todd Hunt, deputy mayor of Gaultois

However, Deputy Mayor Tod Hunt said a chlorine pump won solve the situation entirel According to him the chlorine pumping station isn't workin right, and they can't control t amount of chlorine going into t system.

- Todd Hunt, province sommunity in province

Challenges

- Concerns about health impacts
- Taste and aesthetic concerns
- High per capita water use
- Poor communication when on a BWA



Potential Solutions

- Public education programs
 - Untreated drinking water risks
 - Conservation efforts
- Better communication practices when on a BWA

Areas for Future Research

Public Perception, Awareness & Demand

- Public perceptions and use of water
- Appropriate outreach activities for water education and conservation efforts

Infrastructure & Operations

- Cost benefit analysis of water metering and other alternatives
- Research into remote technologies

Policy & Governance

- Research into how to improve the DWQI
- New governance options for source water protection in rural areas

Source Water Quality & Quantity

• Baseline studies on all drinking water supplies

Thank you!

And stay in touch!

•Visit our website: http://nlwater.ruralresilience.ca

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Closing Discussion

- Any questions?
 Comments? Concerns?
- Do any of you do research in rural communities?
 - What kinds of drinking water challenges have you encountered?
 - Solutions?