



Activities of the Groundwater Section Water Well Workshop Travellers Inn – April 7, 2009

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Groundwater Activities

- Overview of Groundwater Resources
- Private Water Supply Initiative
- Federal Agrifoods Initiatives
- Pump House and Well Identification Program
- Non Domestic Well Permits
- Public Water Supply Sampling and Inspection
- Path Forward

Groundwater Resources in Newfoundland and Labrador

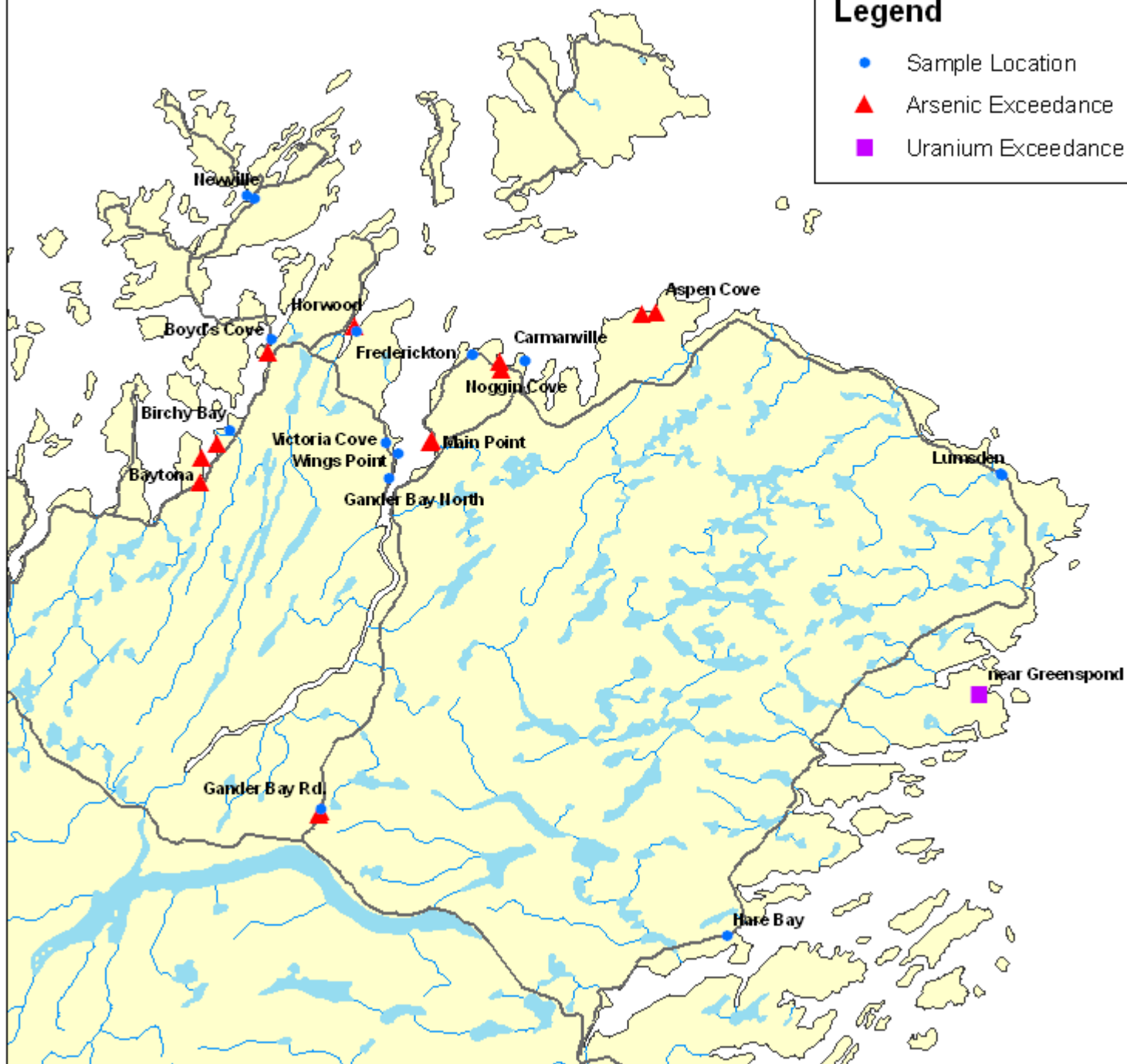
- Supplies drinking water to 29% of the population, higher % in rural areas
- About 22,000 drilled wells and at least that many dug wells in the province
- 500 new wells drilled each year
- Used in every community and cottage area
- Preferred water supply type in rural areas
- About 320 public wells in the province

Private Water Supply Initiative

- 220 communities have no public water supply and rely almost entirely on well water
- Joint project with Dept. of Natural Resources
- Few chemical tests done on private wells
- Contract hydrogeologist hired to pick areas where potential naturally contaminants in well water may be present. Based on geology
- First area - Gander Bay North
- 30 samples taken - 15 had contaminant exceedances based on Health Canada Drinking Water Guidelines

Legend

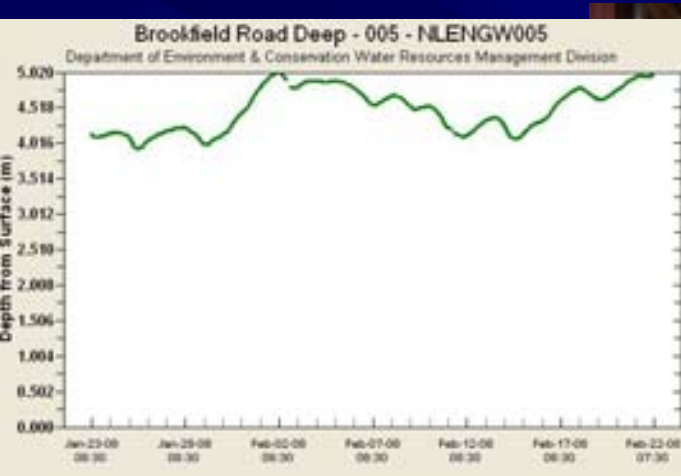
- Sample Location
- ▲ Arsenic Exceedance
- Uranium Exceedance



Federal Agrifoods Initiatives

- Successful in obtaining \$160,000 funding under the Canada- NL Water Supply Expansion Agreement for 2007-08
- Two programs – Hydrogeology of Farming Areas – NL, and Real Time Groundwater Level and Water Quality Monitoring of Farming Areas, NL (both on our web site)
- Contribution agreement where they supply the funds and we do everything else (Bob and Keith)

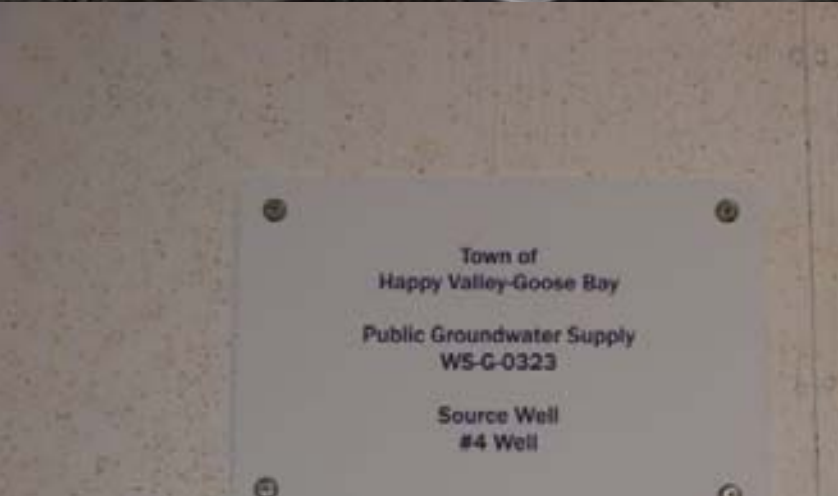
Agrifoods Contribution Agreement



Pump House and Public Well Identification Program

- Need to identify community pump houses and public wells
- Water sampling may be done by different people due to job transfer, retirement, etc.
- In fall of 2008, 202 pump houses and 292 public wells had identification signage or well tag placed on them

Water Supply Identification Program



Non Domestic Well Permits

- Wells used for other than domestic uses

Requirements to provide:

- where they are (coordinates)
- how much water they intend to use
- will they interfere with existing water users in the area?
- water testing before offering water to the public
- Pump test done if necessary to know the sustainable yield of the new well

Non Domestic Well Permits

- 28 permits issued in 2007
- 31 issued in 2008
- Water bottling operations, geothermal heat pumps, new public water supplies, motels, camp grounds, mine water supplies, schools, etc.

Public Water Supply Sampling and Inspection

- 286 source samples taken of public wells to determine any differences between tap and source water and efficiency of any filtering system in place
- Inspections of 253 public wells done to see that the well provides the safest avenue for water entering distribution system

Path Forward Initiatives

- Identification of Potential Contaminant Exceedances in the 220 communities on private wells
- Repeal of the Well Drilling Regulations to be replaced with Well Construction Regulations which will include dug wells
- Independent assessment of well water supplies of homes and buildings that are bought and sold (realtor workshops)

Path Forward (con't)

- Guidelines for water supply assessment of unserviced sub divisions (ongoing)
- Hydrogeology of Eastern Newfoundland
- Geothermal Heat Pumps???

City man takes plunge down well



GARY HEBBARD/THE TELEGRAM

David Heffernan was lucky to escape with relatively minor injuries when he fell down this four-metre-deep well on his Goulds property.





Thank you!