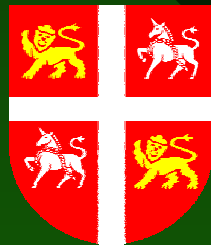


Water Quality Program for Newfoundland and Labrador Communities



GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR

Department of Environment

Water Resources Management Division

Introduction

1. Holistic approach to clean and safe drinking water
2. Actions being taken by the Department of Environment
3. Dealing with THMs
4. Boil order advisories
5. What all of us can do

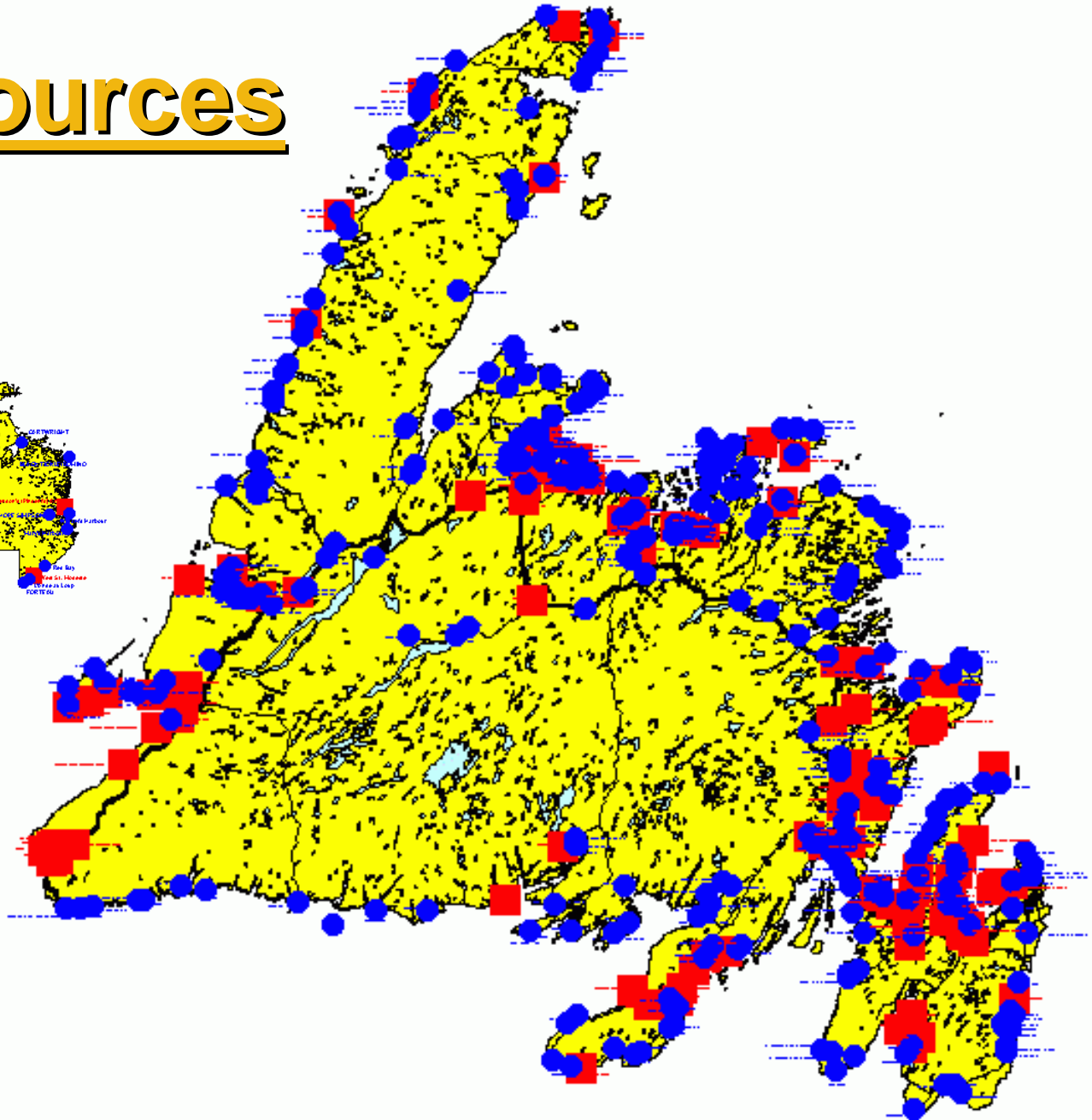
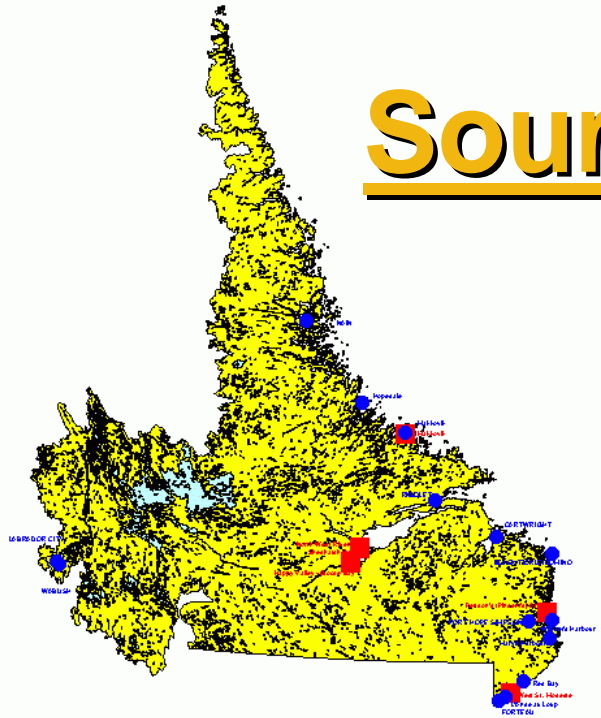
Multi-Barrier Approach

- 💧 Source Protection
- 💧 Treatment & Distribution Systems
- 💧 Operation and Maintenance
- 💧 Monitoring

Source Protection

- About 250 water supplies are protected at the request of communities
- 8 communities have groundwater protection zones designated around their wellhead
- About 100 approvals are issued per year in connection with PWSAs

Sources



● 314 Surface Water

■ 293 Groundwater

604 municipal
•29 owned by others
•3 communal
•187 private

Treatment and Distribution

- 16 conventional water treatment plants, 8 systems with filtration and about 57 other
- Chlorination
 - 404 liquid chlorinators
 - 125 gas chlorinators
 - 6 powder based chlorinators
- Inspection of facilities
- Review of 350 capital works submissions

Operation and Maintenance

- **Main area of responsibility for communities**
- **Operator training and education**
- **Partnerships**
 - **10 watershed monitoring committees**
 - **5 THM control committees**

Monitoring

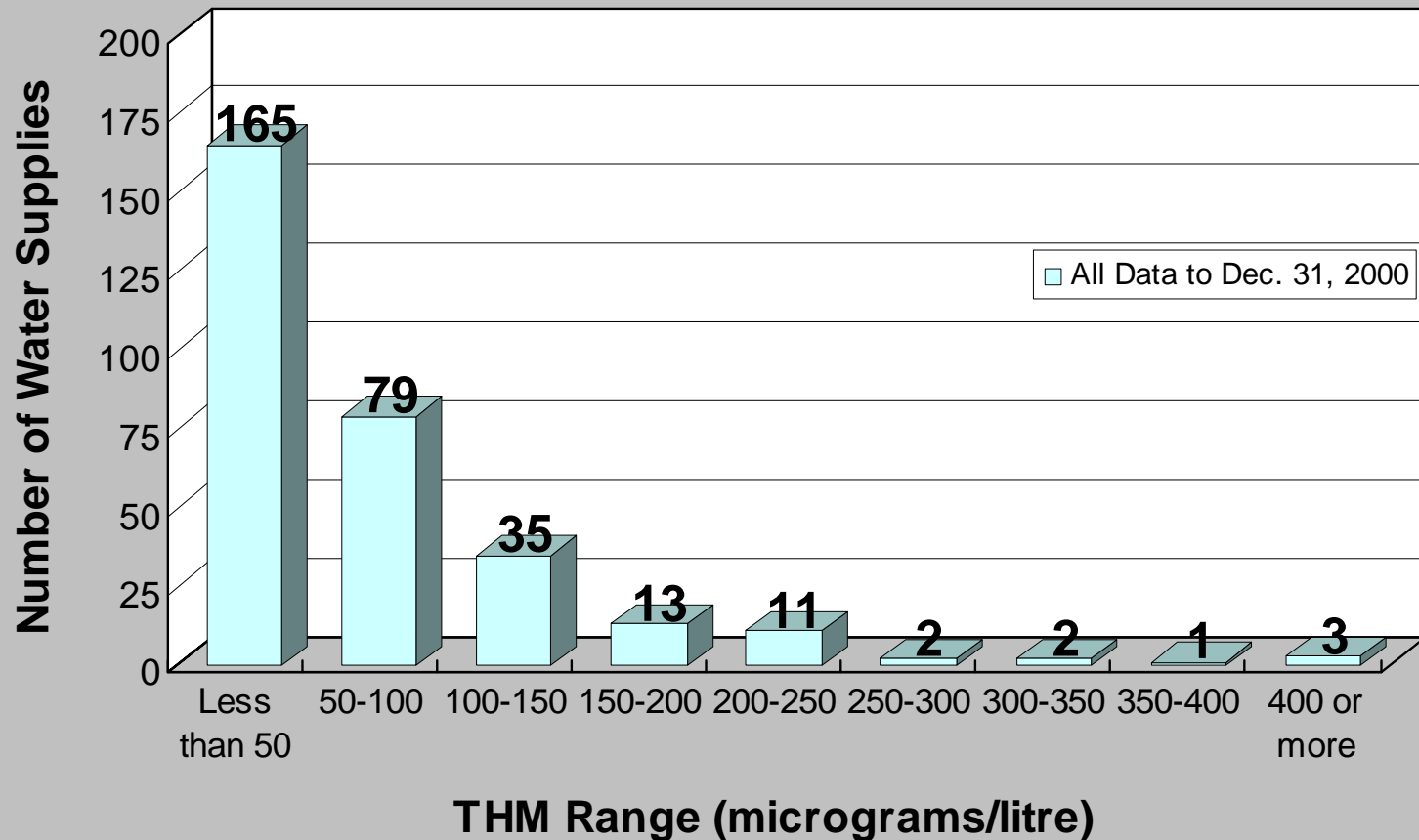
- **Monthly / bi-weekly bacteriological monitoring carried out by GSL**
- **Source water monitoring**
- **Tap water quality monitoring for common chemical and THMs**
- **Feedback provided to communities**
- **Operational monitoring of chlorine should be carried out daily by the operator**

Progress with THMs

- **New position approved in April 2000 to deal with issue**
- **Town meetings in including discussions on THMs, health risks, total water treatment, operational problems**
- **THM committees have been established**
- **Over 311 communities tested at least once**

Current Distribution of THMs

Distribution of THM Levels in Newfoundland & Labrador



Training and Education

- 💧 **Presentation to Joint Mayors of Trinity – Bay de Verde**
- 💧 **THM presentation to 7 session of Health inspectors training course**
- 💧 **Working on 3 THM committees**
- 💧 **Continue to work on operator training needs survey, organization of workshop for next year and technical materials**

Boil Water Advisories

- Currently there are 246 advisories in place
- Majority were issued for very small systems that do not have adequately operating disinfection systems
- Other communities do not meet the “*Guidelines for Canadian Drinking Water Quality*” in terms of coliform counts
- Very small number based on concerns for possible giardia (beaver fever)

Addressing Microbiological Concerns

- Continued bacteriological monitoring by health inspectors of water supplies
- Proactive measures in schools and institutions on separate water supplies
- New testing procedures, training and reporting protocols being put into place
- Development of a MAPA, GSC, Health and Environment water supply database to facilitate information integration

What all of us can do

- 💧 Take community ownership of water supply systems and be proactive about protecting the quality from source to tap.
- 💧 Find innovative ways to guarantee the availability of safe clean water and to improve and maintain the systems.
- 💧 Dedicate resources to the task and never overlook the need for training staff who work on water systems.
- 💧 Ensure that people are treated as stakeholders and always keep them informed about the water delivered to their homes.
- 💧 Test and monitor the water, but do not wait for poor results to take necessary corrective action to avoid problems.
- 💧 Do not compromise the need for proper disinfection, even if this means having to deal with disinfection by-products in the long term.