Source Water Protection

What YOU Can Do

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WHAT IS…

Source Water Protection?

Image: http://www.sourceprotection.net

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What is a watershed?



http://www.env.gov.nl.ca/env/waterres/quality/drinkingwater/pdf/Protect_Your_Water_Source.pdf

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Source Water Protection: The Economic Case

Walkerton was estimated as costing over $64.5 million (not including the unquantifiable cost of human life)

Ratio of **benefits of avoiding contamination** to the **costs of source protection programs** range from **5:1 to 200:1 (USEPA)**

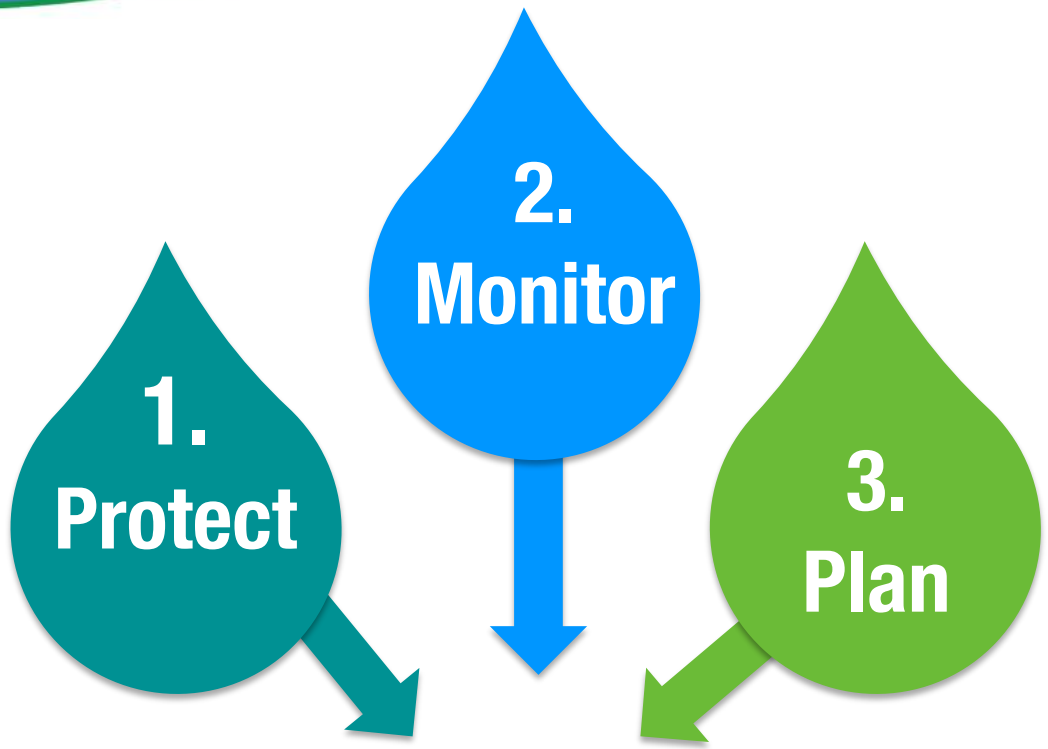
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2015 Resolution

Be It Resolved That…

MNL lobby the Government of Newfoundland & Labrador to ensure all water supply areas are designated **Protected Public Water Supply Areas** (PPWSA), and

to work with MNL to **build municipal capacity** to actively **implement PPWSA regulations**, appropriate local and/or regional **governance means**, and watershed area **monitoring measures**.



MOVING FORWARD

Step 1:
PROTECT

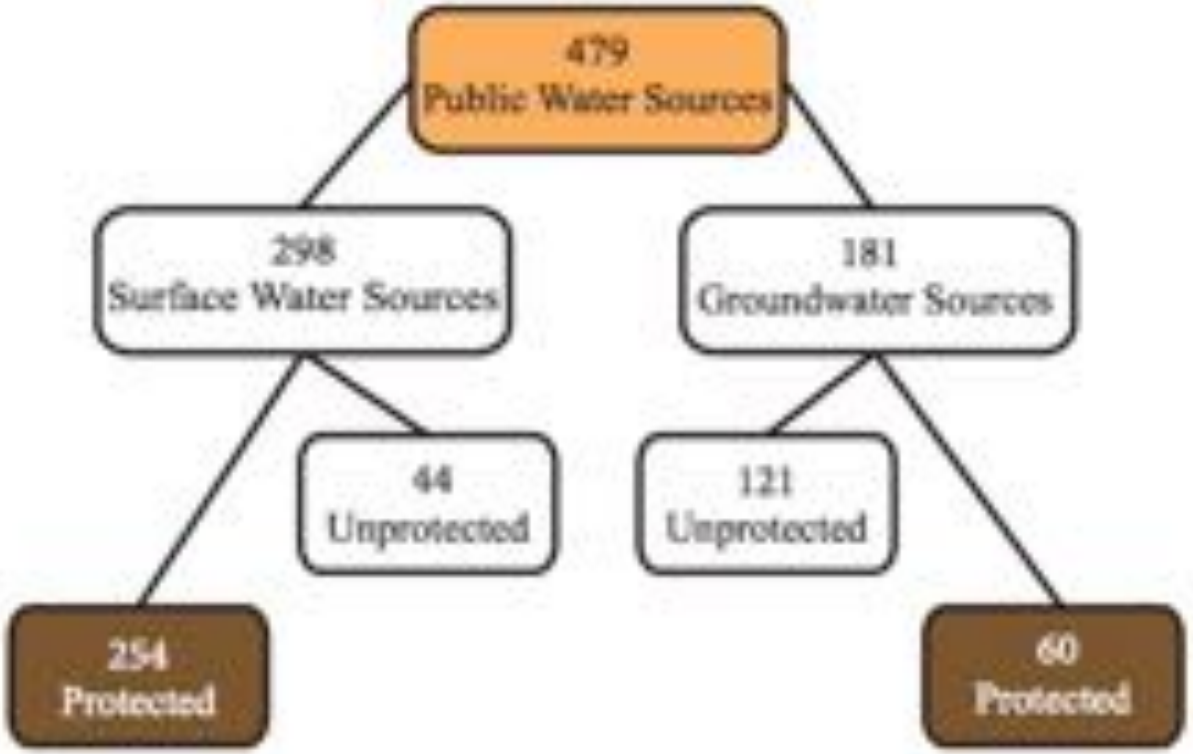
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NL Source Water Protection Legislation

Section 39(4) of *Water Resources Act*
Protection of Public Water Supplies

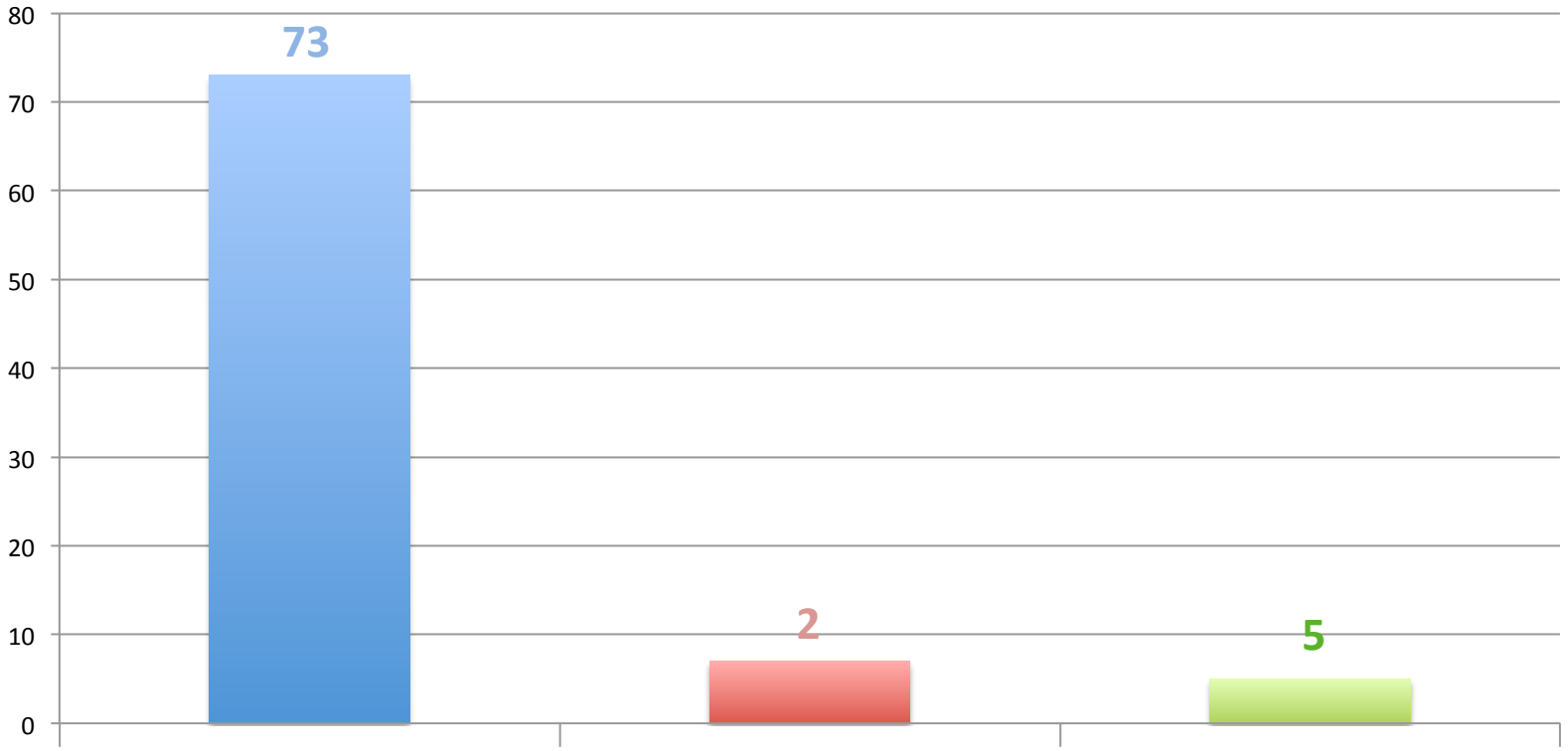
- (4) In the area defined under subsection (1), a person shall not
  - (a) place, deposit, discharge or allow to remain in that area material of a kind that might impair the quality of the water;
  - (b) fish, bathe, boat, swim or wash in, or otherwise impair the quality of the water; or
  - (c) use or divert water that may unduly diminish the amount of water available in that area as a public water supply.

Current Status of PPWSA's in NL



Government of NL, 2014

PPWSA's in the Central Region



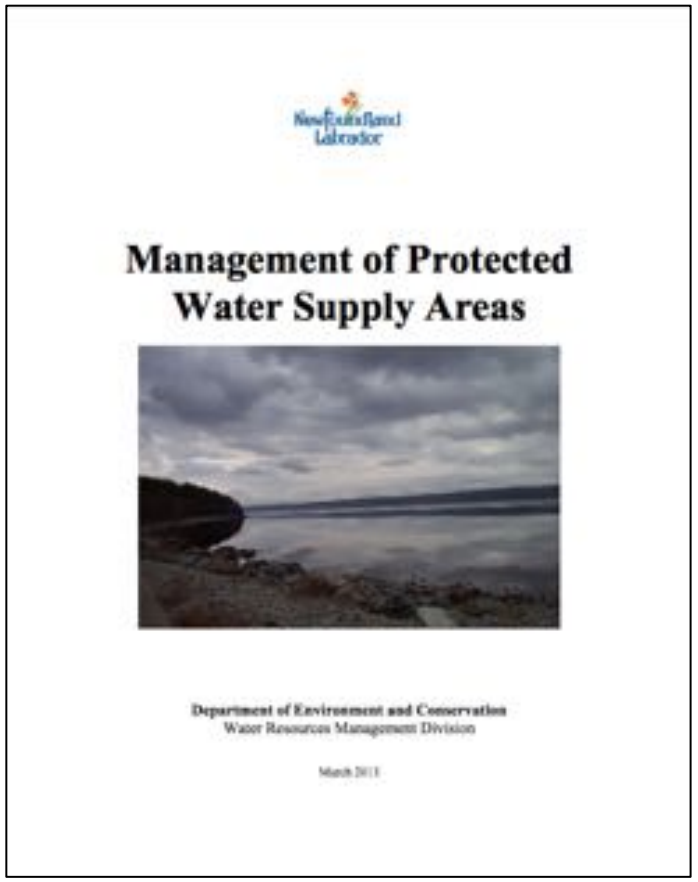
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Getting Your Town Protected

- **Download application ($200 + HST):**

  http://www.env.gov.nl.ca/env/waterres/quality/drinkingwater/pdf/Protection_Public_Water_Supply.pdf

- **Monitoring and enforcement plan**



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Step 2:
MONITOR

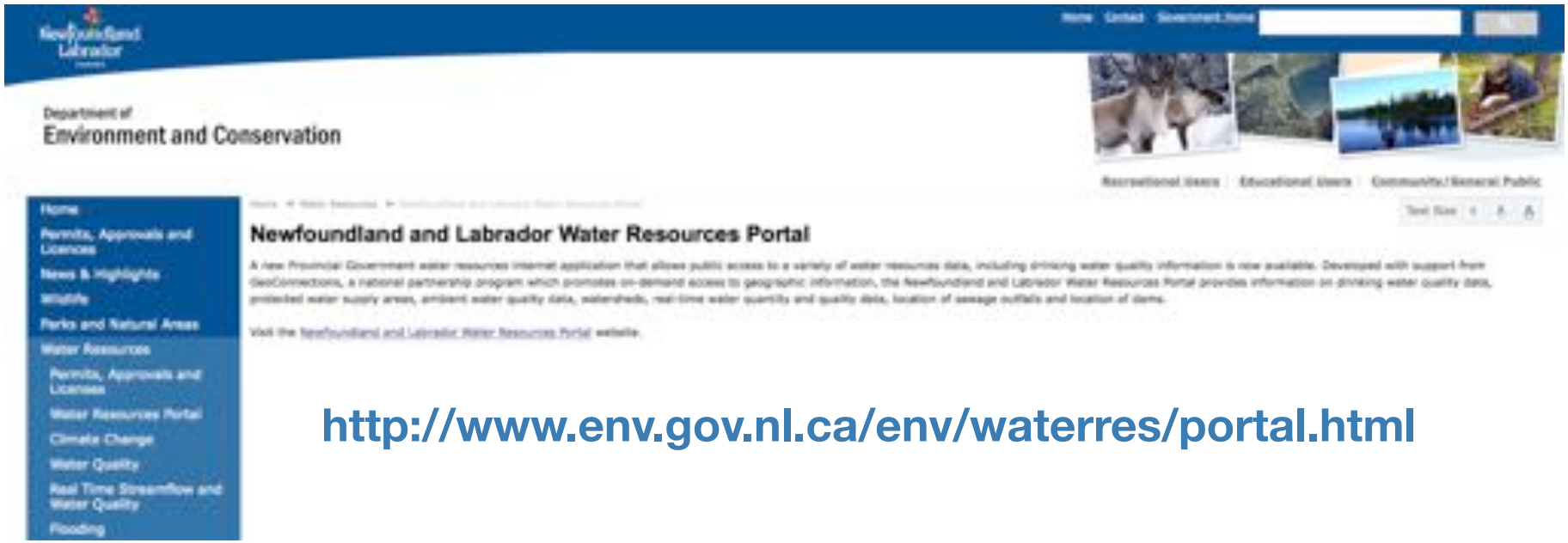
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Eyes on the Ground

Permit to Operate for Drinking Water Systems

"The Owner shall endeavour to take all necessary steps to ensure protection of the water supply source from contamination. The operators must establish and maintain a regular inspection routine to monitor activities within the water supply area."

Water Resources Portal

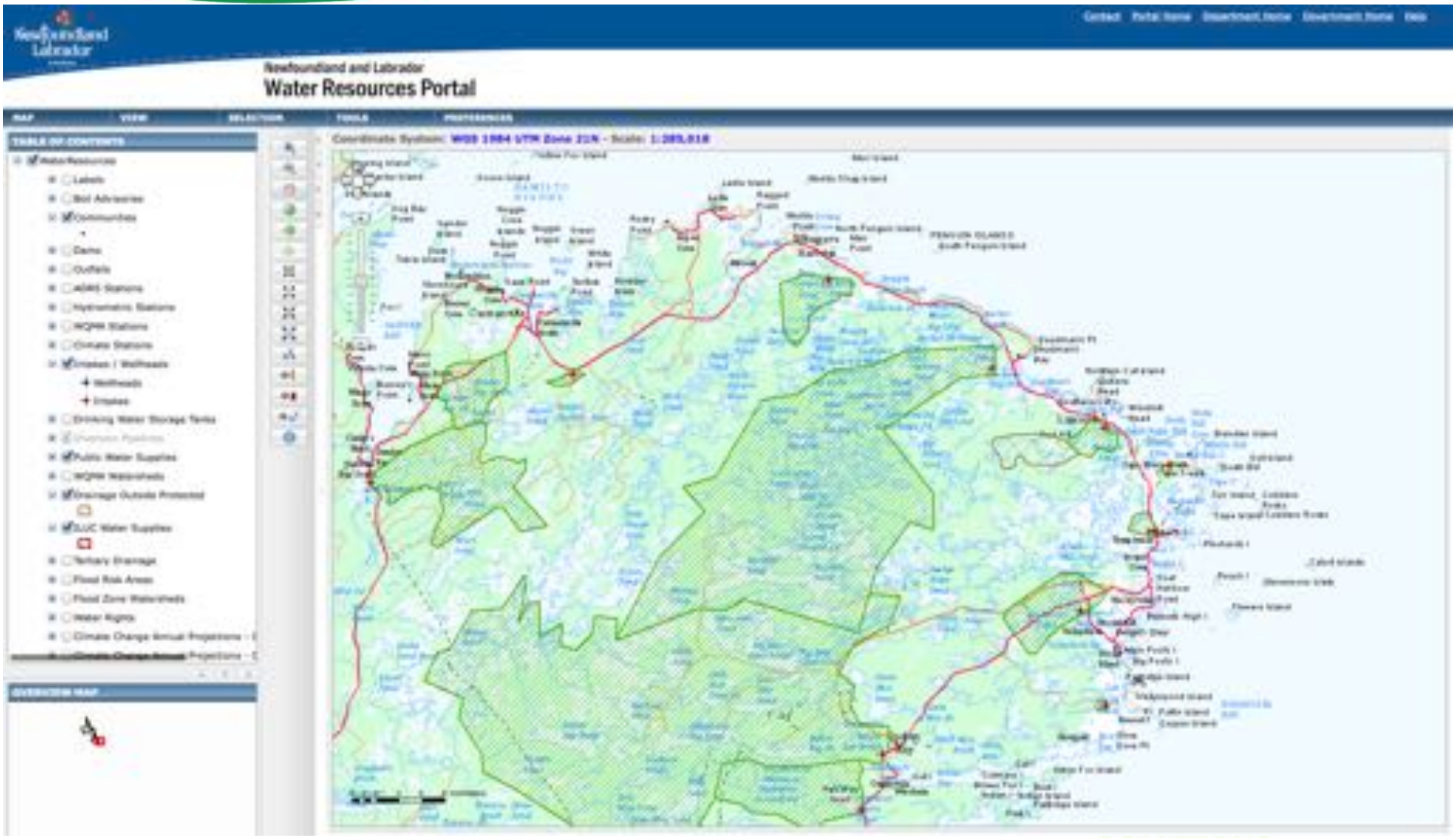


http://www.env.gov.nl.ca/env/waterres/portal.html

Map Viewer Application

https://maps.gov.nl.ca/water/mapbrowser/

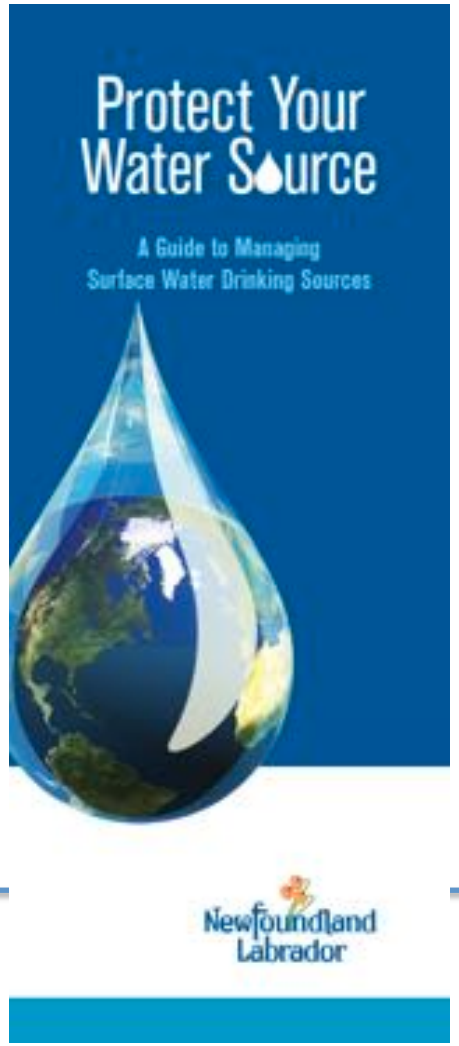
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Map Viewer Example – Gander Loop

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Protect Your Water Source



- **Assemble a PPWSA monitoring committee**
- **Create a monitoring plan**
  - **Who? (staff, volunteers?)**
  - **How often?**

What to Note While Monitoring

- Activities or developments observed
- Whether permits required for developments are in the possession of the operator/developer
- Natural phenomenon of concern (e.g., beavers, water levels)
- Roads or trails causing erosion
- Actions of individuals or groups that threaten water quality or quantity

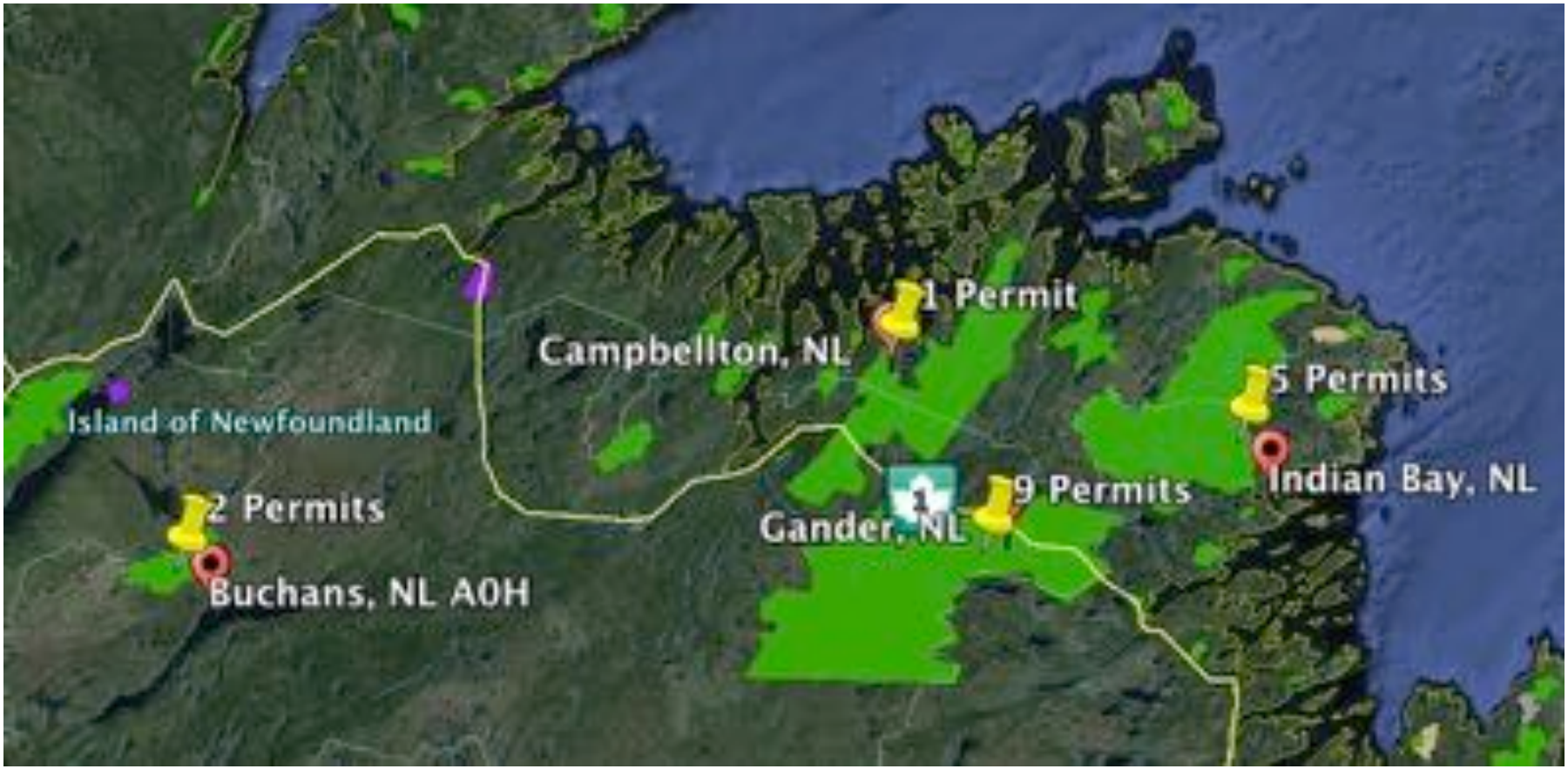
Permits

Section 48 of *Water Resources Act*

Permit for Alterations to a Body of Water

•Culverts•Bridges•Dams•Fording•
•Infilling/Dredging/Debris Removal•
•Pipe Crossing/Water Intakes•
•Wetlands•Stream Diversions/Modifications•
•Blanket Permits•Floodplain•
•General Alterations•

Permits


1 Permit
Campbellton, NL
5 Permits
Island of Newfoundland
Indian Bay, NL
9 Permits
2 Permits
Gander, NL
Buchans, NL A0H

Monitoring Tools

- Note pad, cell phone, GPS and camera
- Rain boots, waders, hat, sunscreen, water, etc
- Map of protected public water supply area: https://maps.gov.nl.ca/water/mapbrowser/

Make sure to note the date, GPS location and take pictures of any offenses

APPENDIX 9: MONITORING REPORT

Example

Steady Brook Watershed Monthly Monitoring Report

Month _____

Activities / developments observed:

_____

_____

_____

_____

Applicable permit in possession of operator:

_____

_____

Natural phenomenon of concern noted (e.g. beaver, water levels):

_____

_____

_____

Any roads or trails causing erosion?:

_____

_____

_____

Potential threats to water quality observed?:

_____

_____

_____

Other comments/observations:

_____

_____

_____

_____

Photo #'s _____

Signed _____

Date _____

Source:

A Municipal Guide to the Development of a Watershed Management Plan

Enforcement

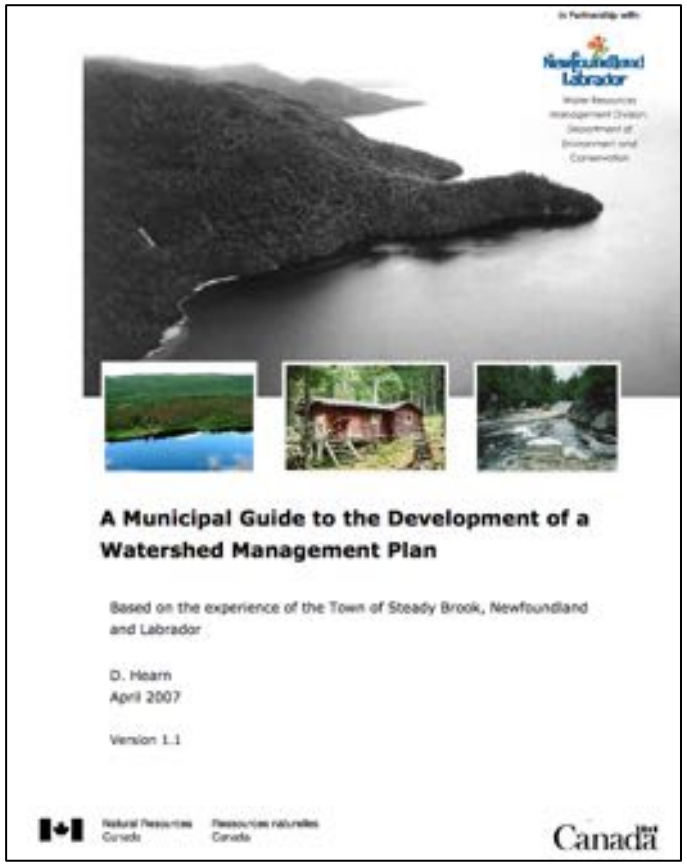
- Municipal monitor informs the violator what regulation/policy is being broken and requests the activity be stopped immediately
- Municipality notifies the Department of Environment and Conservation of infraction



Step 3:
PLAN

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Source Water Protection Planning



- **Incorporating protection strategies into municipal planning**
- **More to come on this!**

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Action Items

1. Protect

- Make sure your municipality's public water supply area is protected

2. Monitor

- Look up your Protected Supply Area
- Research current monitoring activities and enforcement

3. Plan

- More to come on this!

Breakout Discussion

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Break Out Questions:

1. **Does your municipality have a PPWSA?**
   a. If not, why not?
2. **Is your water supply area monitored regularly?**
   a. If yes, by who?
   b. How are monitoring efforts recorded?
   c. If not, could you? What are the barriers to monitoring?
3. **What do you need to improve source water protection in your municipality** (from MNL, the province, etc)?

Reporting Back

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Sarah Minnes - MNL Municipal Water Liaison
1-709-630-0287
Municipal Water Liaison
FREE service to all MNL members.
Contact Sarah Minnes with all of your inquiries regarding rural drinking water systems and protecting your source water.
Municipalities
Newfoundland and Labrador
Our people • Our place • Our potential

Further Resources

- Dawe, P. (n.d.). Preventing Emergencies through Watershed Protection: http://www.env.gov.nl.ca/env/waterres/training/adww/emergencyplanning/09_gander_2007_watershed_management_paula_dawe.pdf
- Government of NL. (2014). Drinking Water Safety in Newfoundland and Labrador: http://www.env.gov.nl.ca/env/waterres/reports/drinking_water/annual_report_2014.pdf
- Protected Water Supply Areas Forms and Government Resources: http://www.env.gov.nl.ca/env/waterres/quality/drinkingwater/protectedareas.html
- A Municipal Guide to the Development of a Watershed Management Plan: http://www.env.gov.nl.ca/env/waterres/quality/drinkingwater/pdf/Municipal_Guide_Management_Plan.pdf

To access maps of your water supply area go to the Water Resources Portal at: http://maps.gov.nl.ca/water/ or the Geoscience Atlas at: http://geoatlas.gov.nl.ca/Default.htm

Thank You!

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