



Health
Canada

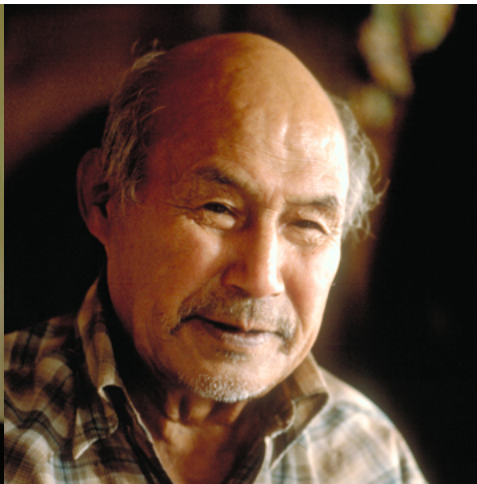
Santé
Canada

*Your health and
safety... our priority.*

*Votre santé et votre
sécurité... notre priorité.*

First Nations and Inuit Health Environmental Public Health Services

Environmental Public Health Update
TSAG Conference
Edmonton November 2, 2009



Canada 

- Health Canada & Alberta FNIH Organizational Structure
- Environmental Public Health
- AB Region Water Monitoring
- Drinking Water Advisories
- Drinking Water Related Initiatives & Research Opportunities

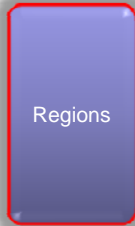


Health Canada Organizational Structure

Minister's Office

Health Canada

Public Health Agency of Canada



**Environmental Public Health Services
First Nations Inuit Health
Health Canada**

Alberta FNIH General Overview



**Environmental Public Health Services
First Nations Inuit Health
Health Canada**

- Our environment has been identified as a major determinant of health
- Environmental Health is defined as:
*“....comprising of those aspects of human health, including quality of life, that are determined by **physical, chemical, biological, social, and psychosocial factors in the environment.** It also refers to the theory and practice of **assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.**”*



Environmental Public Health



Those aspects of the environment that have a potential impact on human health



**Environmental Public Health Services
First Nations Inuit Health
Health Canada**

Role of Environmental Health Officers

- EHOs provide advice, guidance, education, public health inspections and recommendations to First Nations and their leadership to help them manage public health risks associated with the environment.
- They gather data to analyze what steps can be taken to promote public health in First Nations communities.
- In Alberta all EHOs are employed by Health Canada, but in some regions they are employed by First Nations or Tribal Councils (e.g., Ontario, Saskatchewan and Manitoba regions).
- All EHOs are Certified Public Health Inspectors in Canada and hold a professional designation from the national certification body (CIPHI).



Environmental Public Health Programs



Drinking Water Program

- Environmental health assessment and surveillance
- Monitoring water quality of private and public water supplies
 - Chemical and bacteriological sampling and analysis
 - Community based water monitoring training
 - Interpretation of Results
 - Recommendations for corrective action
 - Issues drinking water advisories on behalf of EHO



Drinking Water Program Continued...

- Evaluation/Assessment
 - Design Review for WTP construction
 - WTP public health risk assessments (including tracer studies)
- Assessment and inspection of private supplies
- Training
- Public education on drinking water safety issues



AB FN Drinking Water at a Glance

- 84 PWS
- 113 SPWS
- 4100 private cisterns (estimated)
- 4400 private wells (estimated)
- 100 water trucks (estimated)

Number of Water Samples for all Systems (April 1, 2009 to August 31, 2009)

- 13540 bacteriological samples
- 979 chemical samples

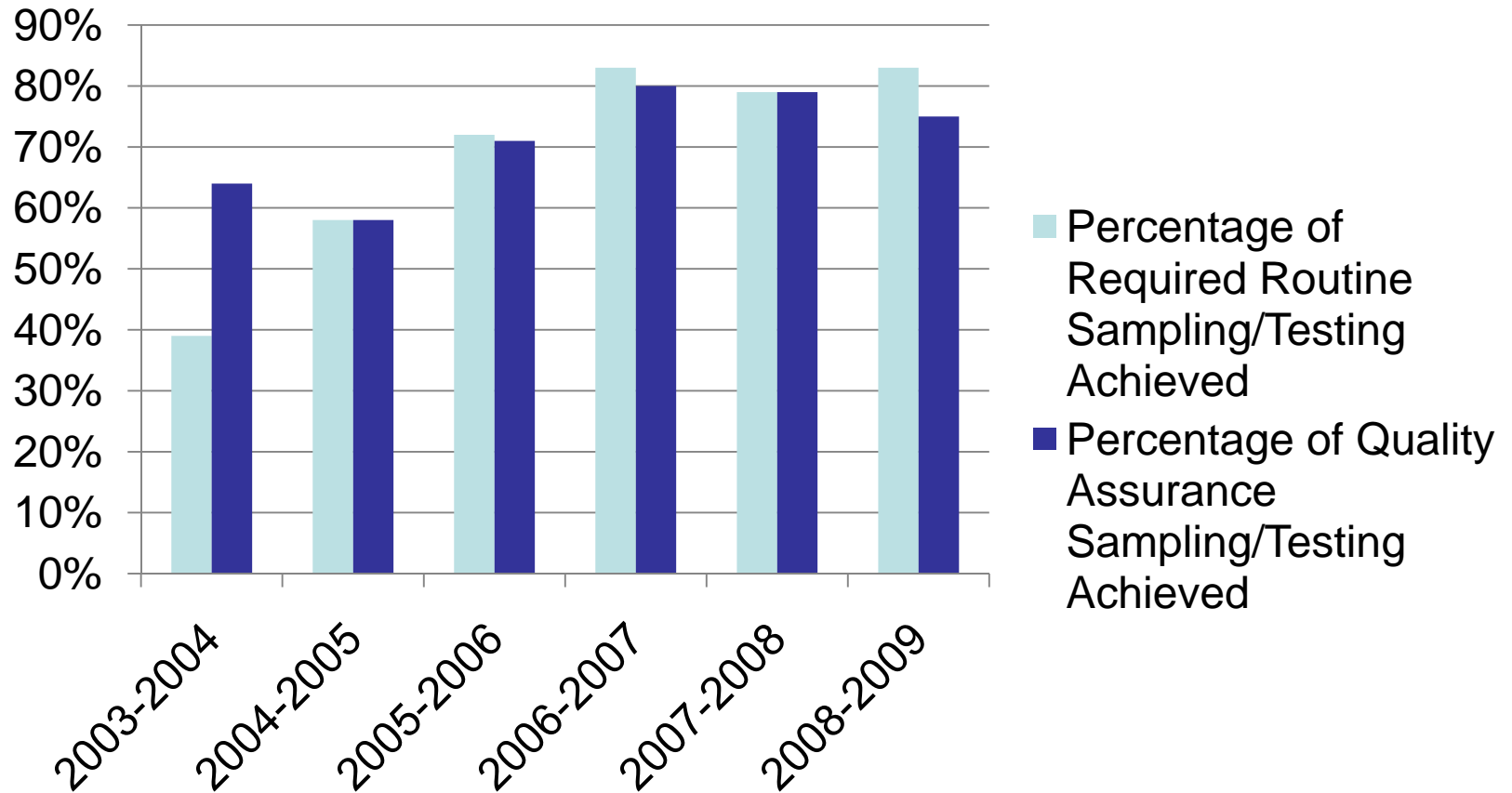


Water Quality Monitoring and the CHR

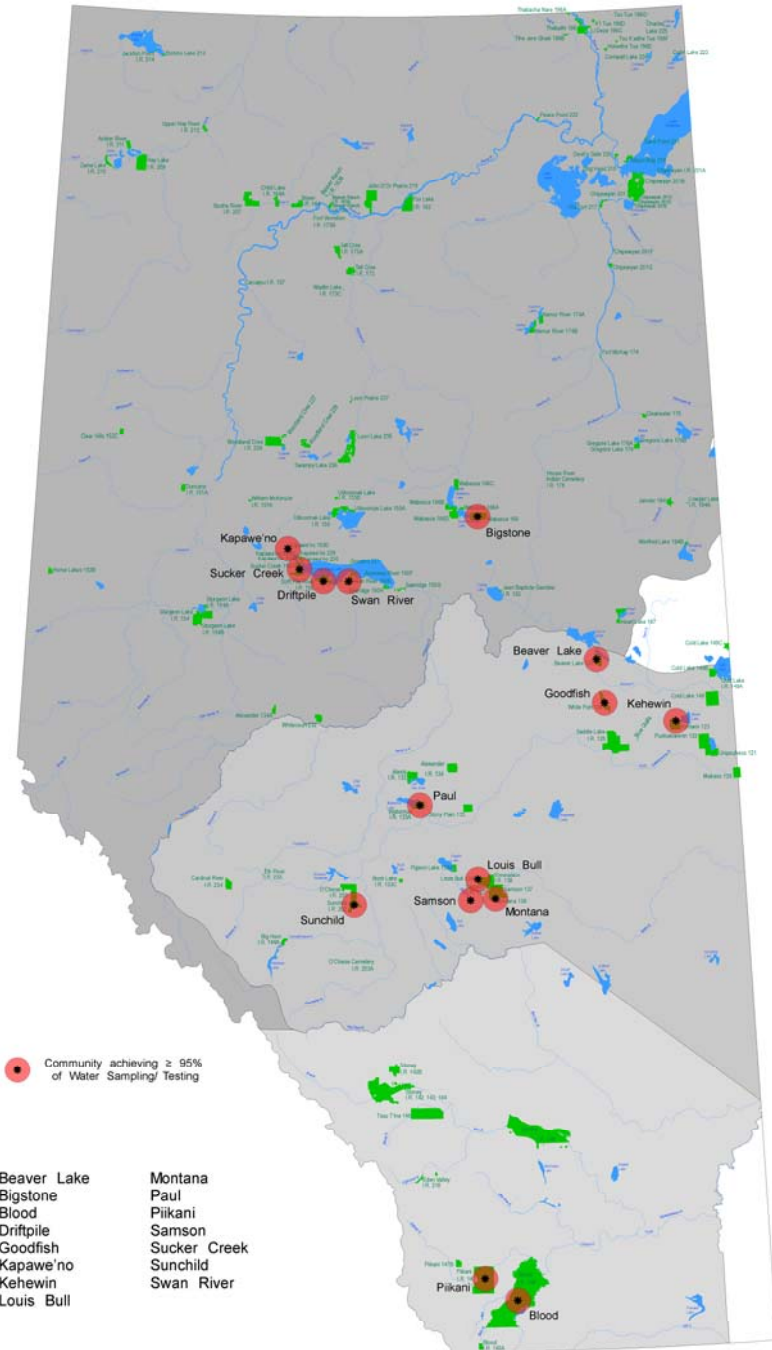
- Weekly bacteriological sampling of the community water supply
- Testing of disinfectant residuals (free and total chlorine)
- Monthly duplicate bacteriological sampling of the community water supply using the Provincial Laboratory for quality control purposes (routine Colilert only)
- Annual bacteriological sampling of all private water supplies
- Reporting and communication of results with all stakeholders
- Emergency support
- Public Education



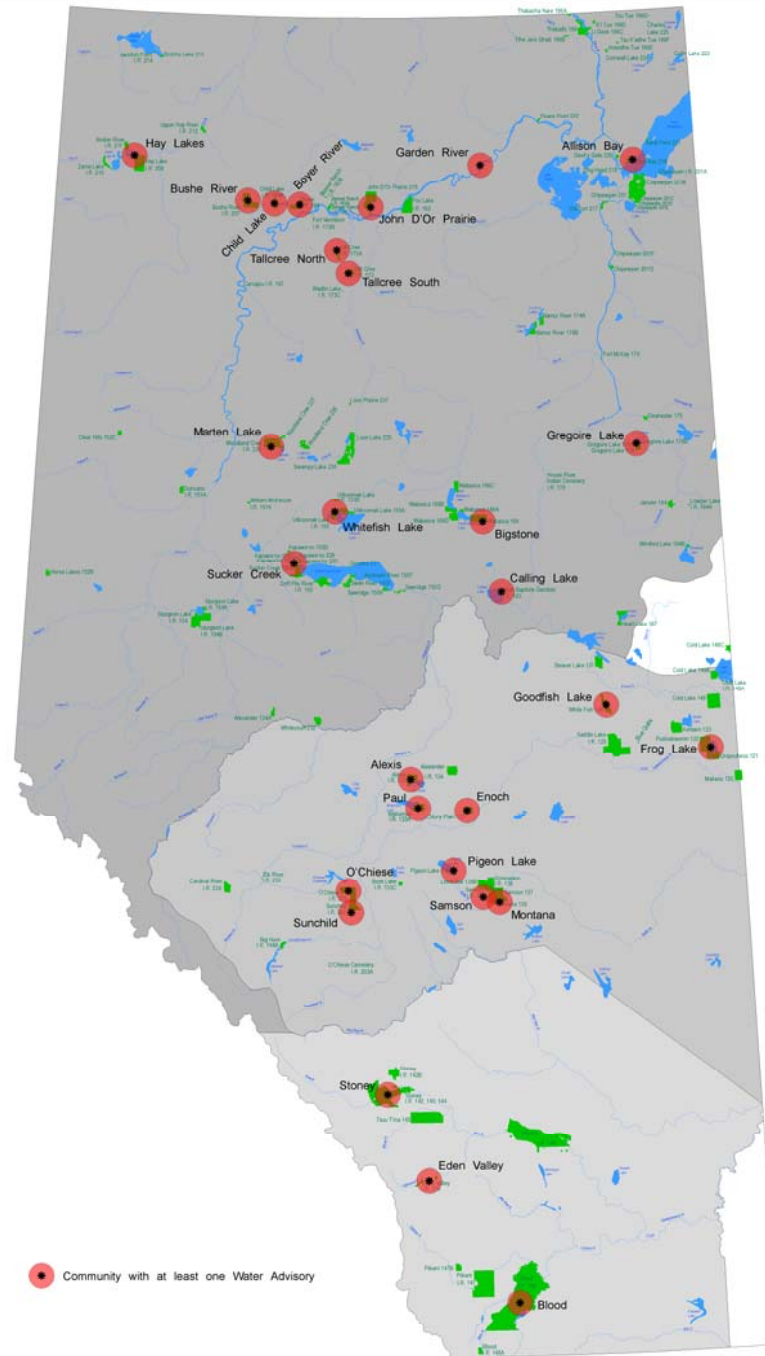
AB Region Water Sampling Program

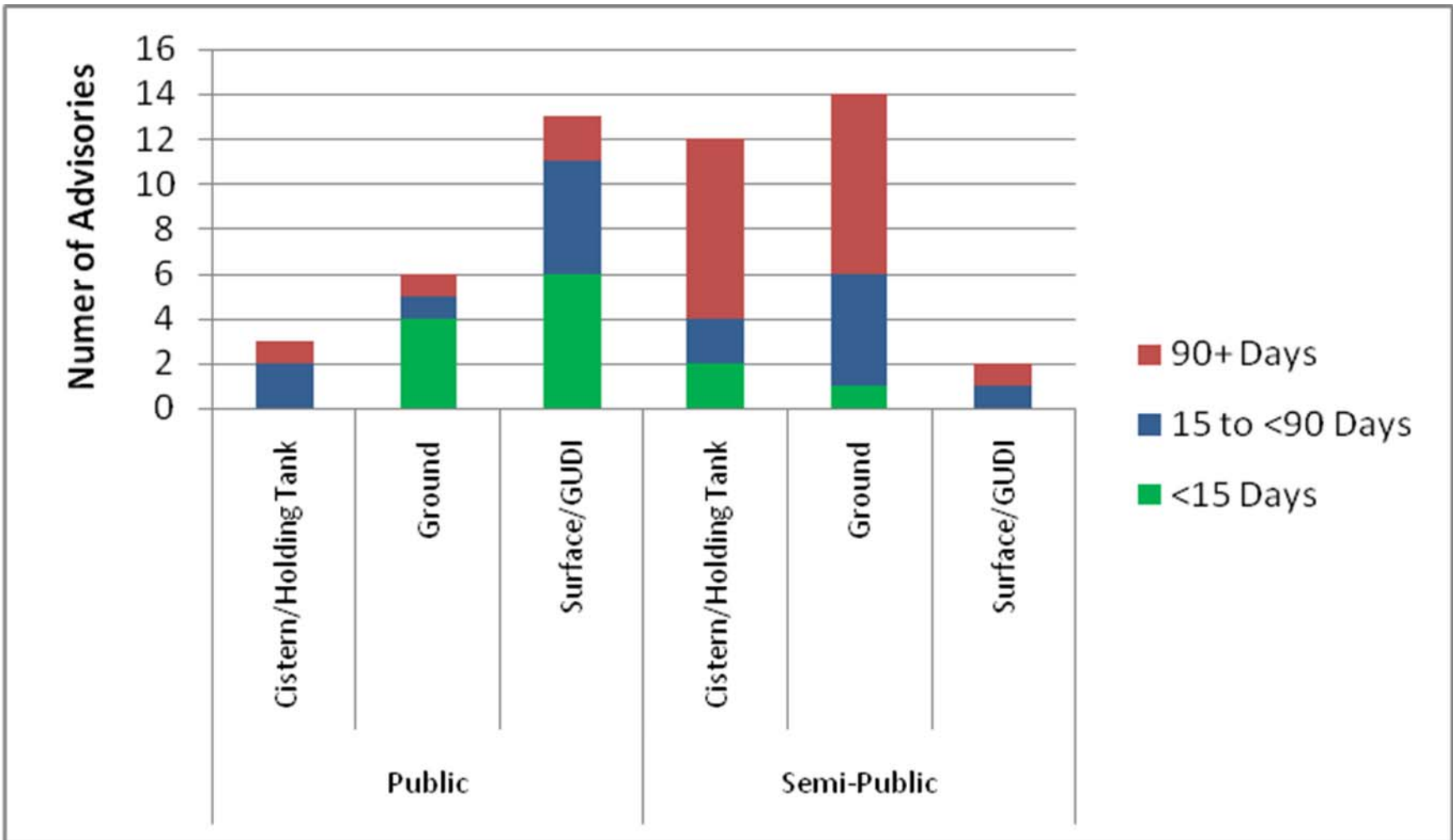


AB First Nation Communities Achieving >95% of routine water monitoring



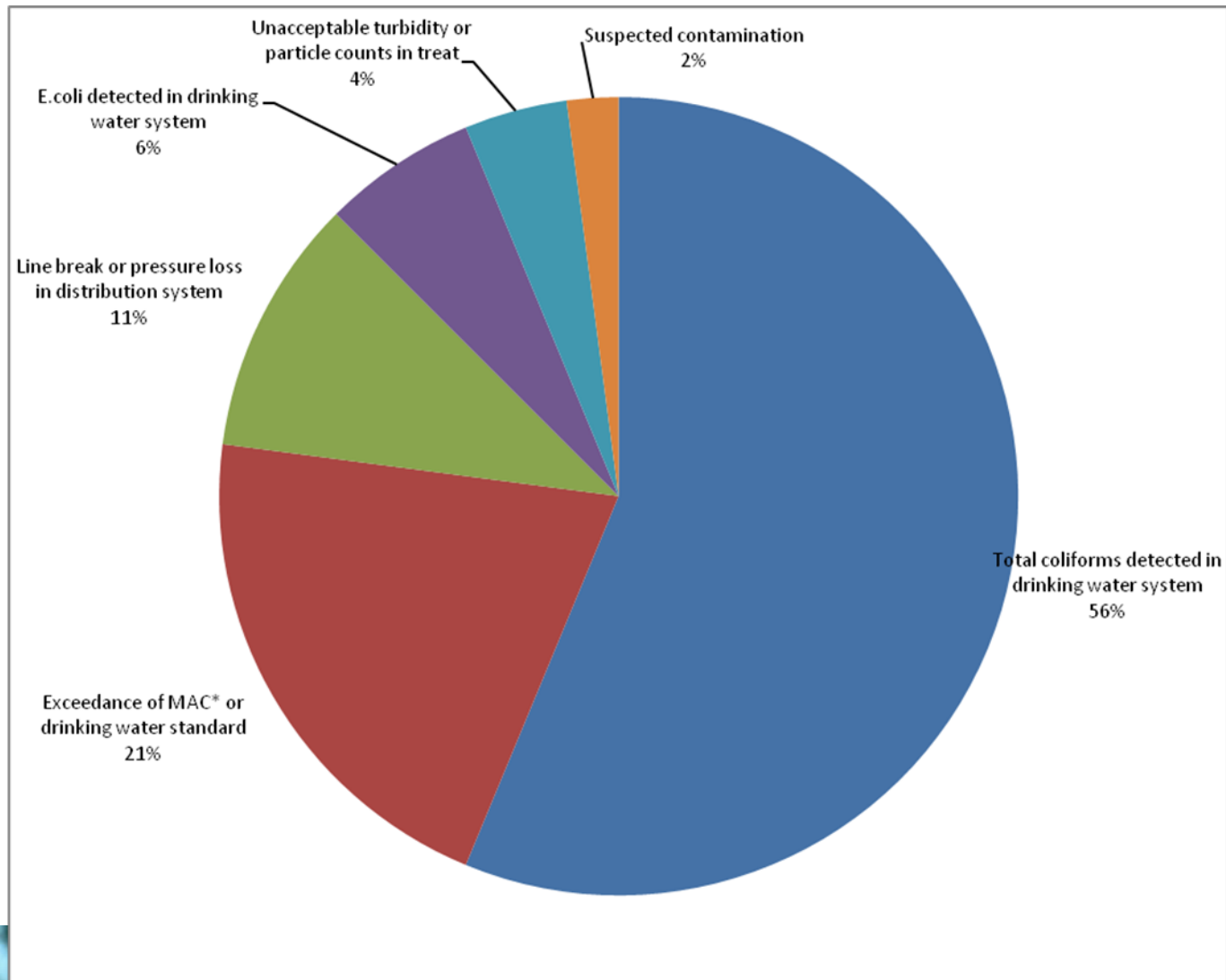
Drinking Water Advisories in AB FN Communities 2008-2009





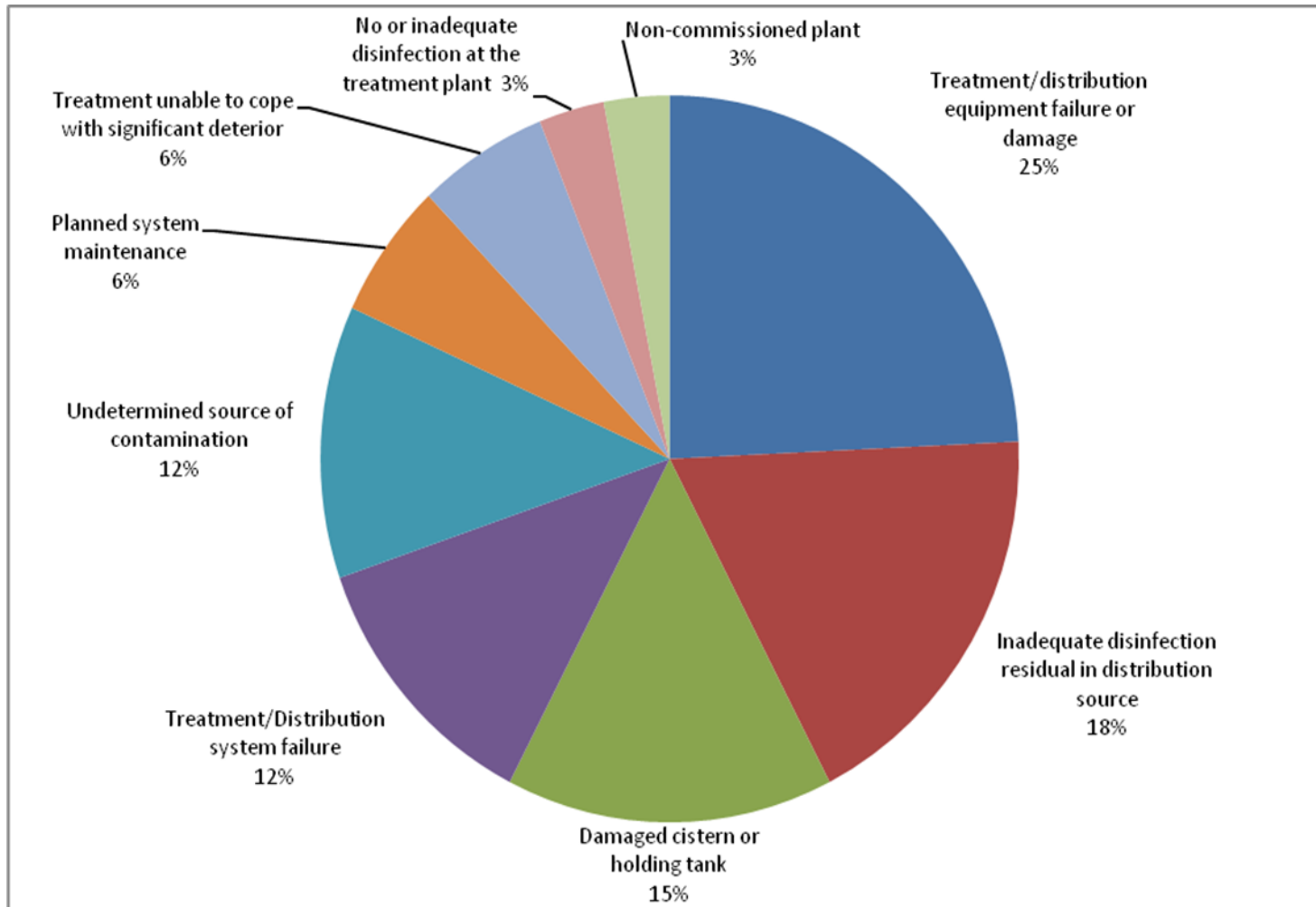


DWAs: Monitoring Reasons





DWAs: Operational Reasons



Drinking Water Related Initiatives & Research

- Tracer Studies
- Opportunities to participate in research projects:
 - Ground Water Pathogen Research with University of Victoria
 - Climate Change Source Water Resource Project
- Further enhancement of CNPHI- DWA Module
- Development of drinking water database and mapping functions (GIS)



Tracer Studies

- During the period of 2002-2004, public health based risk assessments were completed on behalf of Health Canada at First Nation water treatment plants (WTP).
- One of the recommendations from the assessments was to undertake tracer studies.
- The tracer study measured the length of time available after the addition of chlorine within the existing water treatment plant (contact time).
- Identify and note other items observed during the course of the study required to meet the Protocol and ensure that the water system is providing a safe and reliable potable water supply to the community.



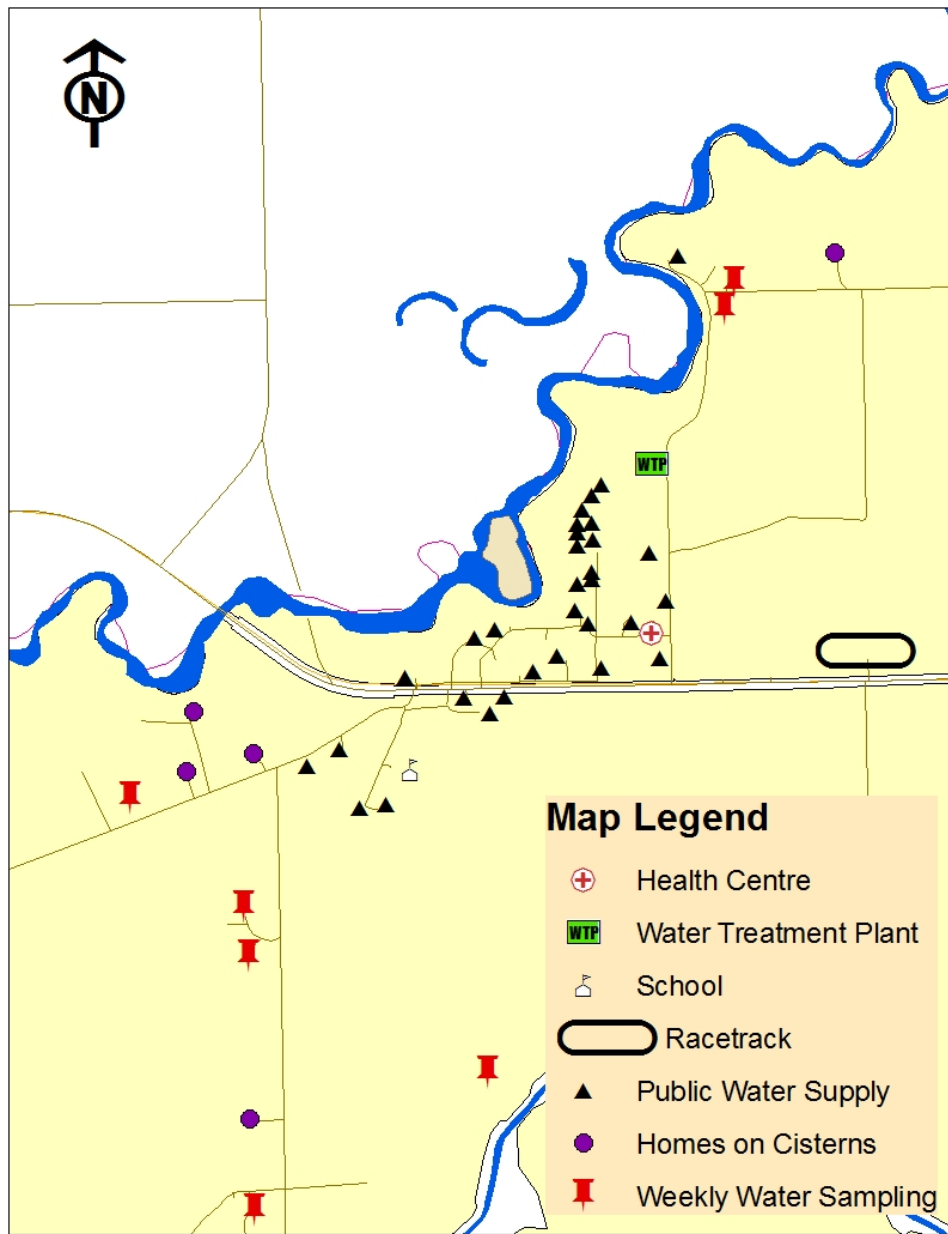
Technology and Drinking Water Data

- Drinking Water Database
 - WEI: Water, Environmental Health, Informatics
- Drinking Water Advisory Module
- Mapping FN Infrastructure





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