

# DRINKING WATER SOURCE PROTECTION

Trent Conservation Coalition Source Protection Region



## Drinking Water Issues

Trent Conservation Coalition (TCC)

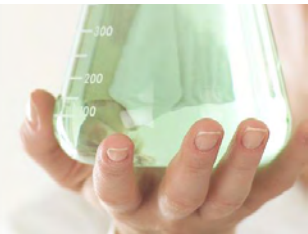
Source Protection Region (SPR)

Source Protection Committee Meeting – March 13, 2009

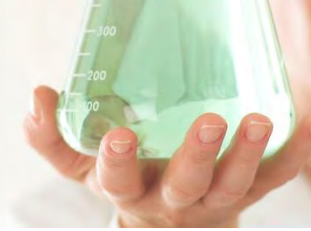
Peterborough, Ontario



Expert People. Better Decisions.

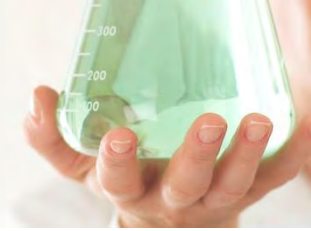


# Agenda



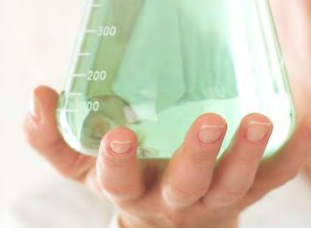
- Final Technical Rules – December 2008
- Definition of Issues
- Methodology of Identification
- Groundwater Sites – Issues
- Surface Water Sites – Issues
- Questions
- Lunch

# Previous Work on Issues



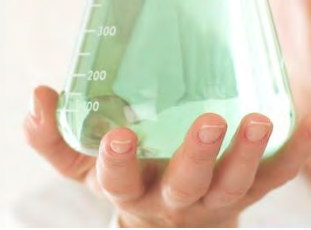
- Completed Draft Interim Reports on Surface Water Sites and Northern Groundwater Sites (2008)
- In the past, identification of Issues has involved comparison to PWQO, ODWS or other benchmark
- Prioritization was completed based on risk to human health, frequency of exceedance and treatability

# Final Technical Rules



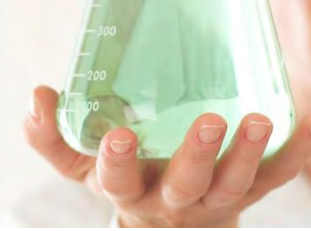
- Final Technical Rules - December 12, 2008
- Part XI – Drinking Water Threats: Water Quality
- Part XI.1 – Describing drinking water issues
- Rule 114 (Issues Definition)
- Rule 115 (Required Information about Issue)
- Rule 116 (Plan to obtain info if not available)
- Rule 117 (Inclusion of info if source outside SPA)

# Issues Definition (Rule 114 (1))



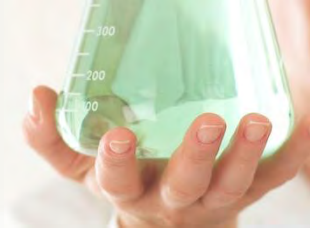
- Presence of parameter at intake or well (including monitoring well) for DWS listed in TOR, if parameter is listed in Schedule 1, 2 or 3 of the ODWQS or Table 4 of the TSD for ODWSOG, and
  - Parameter is present at concentration that results in deterioration of water quality for use as source of drinking water, or
  - There is a trend of increasing concentrations and a continuation of that trend would result in deterioration of water quality for use as source of drinking water.

# Rule 114 (2)



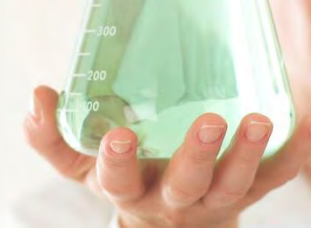
- Presence of pathogen at intake or well (including monitoring well) for DWS listed in TOR, if microbial risk assessment indicates that
  - Pathogen is present at concentration that results in deterioration of water quality for use as source of drinking water, or
  - There is a trend of increasing concentrations and a continuation of that trend would result in deterioration of water quality for use as source of drinking water.

# Rule 114 (3)



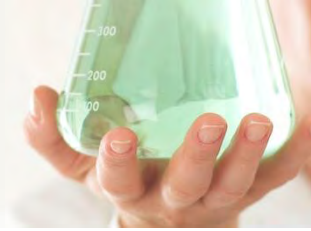
- Presence of parameter at intake or well (including monitoring well) for DWS not listed in TOR, if parameter is listed in Schedule 2 or 3 of the ODWQS or Table 4 of the TSD for ODWSOG, and
  - Parameter is present at concentration that results in deterioration of water quality for use as source of drinking water, or
  - There is a trend of increasing concentrations and a continuation of that trend would result in deterioration of water quality for use as source of drinking water.

# Rule 115



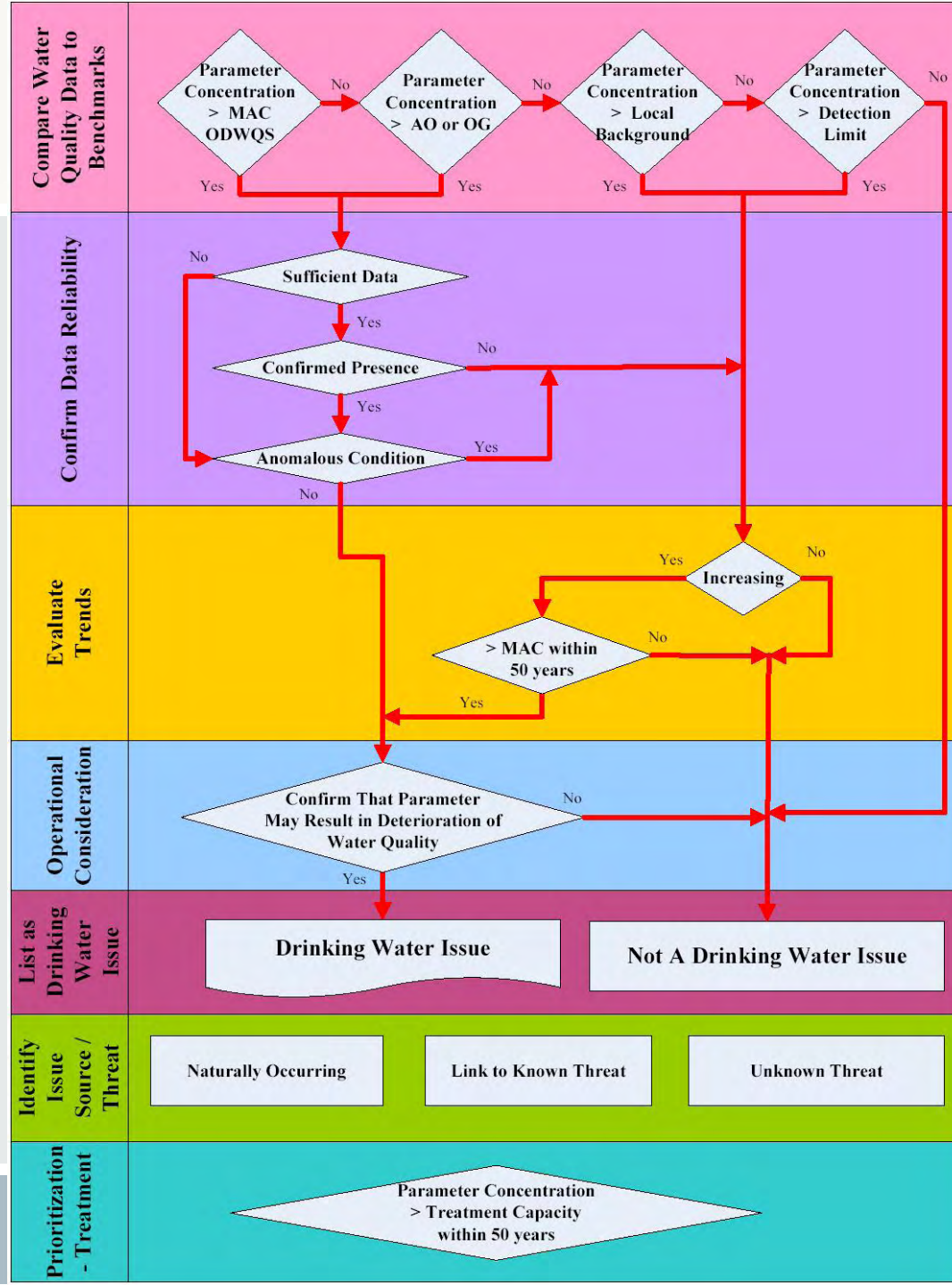
- Information about Issues to include:
  - Parameter or pathogen concerned
  - Where it occurred (intake, well, monitoring well, etc.)
  - Area within vulnerable area where listed threats may contribute to parameter or pathogen
  - Activities, conditions from past activities or naturally occurring conditions that are associated with parameter or pathogen

# Methodology

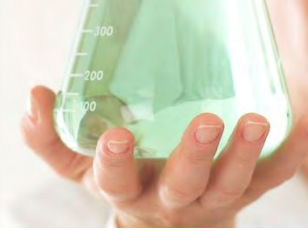


- Assemble water quality data.
- Review all water quality data as per Rule 114 (Primary Benchmark).
- Evaluate drinking water issues using qualitative approach (Secondary Benchmark – trends).
- Identify area within the vulnerable area where contributing threats have been identified (if possible).
- List drinking water issues, according to Rule 115.

# Qualitative Decision Tree



# Operator Consultation



- Identify and interview Operating Authority and senior operational staff
- Obtain background information: MOE Inspection Reports, CofA, Annual Reports
- Provide preliminary list of Issues
- Treatment technology
- Opportunity for Operator comments
- Problems with any issues