

# **A Microbial Source Tracking Protocol: Involving the Affected Stakeholders**

A WORKSHOP ON TRACKING MICROBIAL  
IMPAIRMENT TO WATER QUALITY IN  
RURAL ONTARIO

University of Guelph

April 5-6, 2004

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# Microbial Tracking and Water Source Protection

Microbial source tracking and management plans involve a number of affected populations:

- Agriculture
- Industrial and commercial interests
- Government (municipal, regional, provincial)
- Universities (sampling, analysis)
- Environmental non-governmental organizations
- The public affected by impaired water quality

# Source Tracking and Management Needs

Two central needs:

- Stakeholders to agree with how the protocol is done, and what it shows. MST participation (sampling, monitoring)
- Stakeholders that will implement the management options based on the results of microbial source tracking

# What are the likely Concerns?

## The Protocol:

- the MST technology (how it works)
- uncertainty in the results (error)
- uncertainty in the assessment of risk from a source (how risk will be estimated)

## Management Options:

- physical impact
- Economic impact
- Compensation of costs
- Fairness (distribution) management burdens and benefits

# What are the likely Fears?

- Privacy: collecting samples
- Access to information (sample library)
- Bio-security on farms
- Errors in MST findings
- Errors in risk assessment findings
- Self-incrimination
- Legal or regulatory burdens

# Characteristics of the Protocol

MST: not well understood:

- Complex, scientific (DNA, library)
- Concern: Protocol implications (farm identified as microbial source)

Risk assessment: not understood:

- Complex, scientific (models, dose-response, acceptable risk levels)
- Concern: risk assessment results feared (high/medium/low)

# Getting to Involvement?

## What is Needed?

- Stakeholders that voluntarily participate. The need is stakeholder acceptance first, an MST protocol second.
- An understandable protocol; if it's not understood, it won't be trusted
- Compensation for affected stakeholders to make changes in practices
- Stakeholder control in the MST protocol

# Getting to Involvement?

What is the best approach for getting involvement to make real progress in improvement?

A cooperative process: communicating with those you want to cooperate in developing a protocol

- Problem-solving (protocol and management measures) with the communities as partners
- Community role in selecting:
  - technology options
  - impact management measures
- Assurances: human and environmental health will be maintained.

# A Cooperative Approach

- A 'no-fault' approach for sources
- Sampling based on realistic assessment of risks from given sources
- Partnerships among affected parties for implementing management measures
- A responsible agency for MST (trust)
- Adequate resources for management

# A Forum for MST Discussion

Workshops/focus groups for stakeholders to discuss MST and its implications:

- Express concerns
- Raise issues
- Suggest approaches
- Public comment on the proposed protocol and management plan

# Communicating about MST

- Identify the need for MST (purpose)
- Simplify the message (language) not content
- Objectively outline MST results including uncertainties
- Communicate honestly (trust)
- Communicate with compassion
- Listen to and deal with specific concerns

# Getting MST to Work

- MST and risk assessments don't make decisions, people do.
- MST is the start of the management process, not the end.
- perception = reality
- communication about MST: early, often, and fully