



WWW.OFNTSC.ORG



COMMUNITY-BASED SOURCE WATER PROTECTION PLANNING WORKSHOP

Northern Ontario First Nations Environment Conference
October 4, 2012 Fort William Historic Park
Stephanie Allen & Deneen Brigham



WWW.OFNTSC.ORG

OFNTSC – WHO WE ARE

Staff includes:

- Engineers
- Environmental Scientists
- Infrastructure Specialists
- Housing Advisor
- Fire Safety Officer
- Operations & Maintenance Advisor
- Emergency Planning Officer
- CRTP Water Trainers
- CRTP Fuel Trainer
- Communications Officer
- plus management, finance and administrative staff

- Established in 1995 by Ontario Chiefs in Assembly in response to devolution policy of federal gov't
- 24 member Board of Directors with representative of each Tribal Council, large First Nations, and UFN
- Provide technical advisory services to 134 First Nations and 16 Tribal Councils in Ontario
- Provide direct services to 22 unaffiliated First Nations
- Two offices: Toronto & Thunder Bay



WWW.OFNTSC.ORG

OFNTSC – ENVIRONMENT



Types of Services:

- **Advisory** – provision of information such as generic TOR, BMPs, guidance material, INAC process, forms, policy & legislation, funding
- **Training** – dependent on client needs and available funding
- **Technical** – scientific / technical project reviews, support to project committees
- **Special Projects** – based on need, time, and funding availability



OFNTSC – ENVIRONMENT



- Solid Waste Management & Diversion
- Environmental Assessment
- Spills & Environmental Emergencies
- Water Quality & **Source Water Protection**
- Contaminated Site Assessment & Remediation
- Community Sustainability & Planning
- Energy Efficiency & Conservation
- Environmental Education and Awareness
- Environmental Legislation & Regulations
- Environment Funding Opportunities



WWW.OFNTSC.ORG

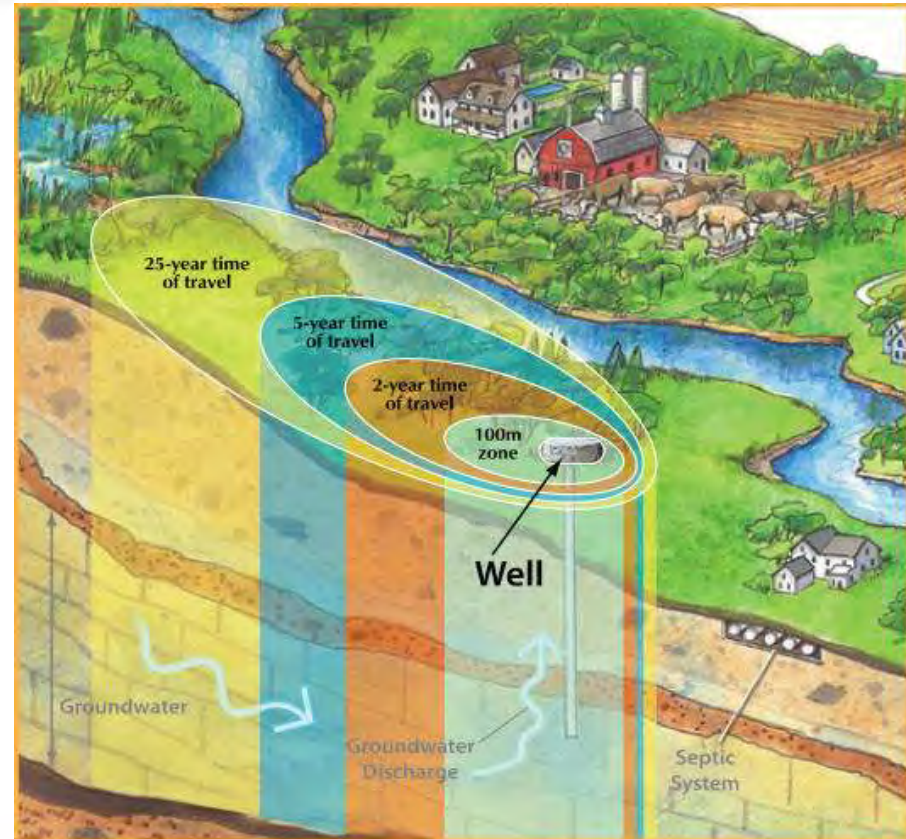
1. WHAT IS SOURCE WATER PROTECTION?

- Source water = untreated groundwater or surface water used to supply human drinking water
- Protection = both the quality and quantity of drinking water sources
- First Nations definitions tend to be broader and encompass the ecological considerations also



SOURCE WATER: PLANNING SCALE

- Wellhead Protection
 - communal groundwater wells
- Intake Protection Zones
 - Surface water intake
- Source Protection
 - drinking water
- Watershed Management
 - ecosystem approach



WATER THE UNIVERSAL SOLVENT & THE MYTH OF ABUNDANCE

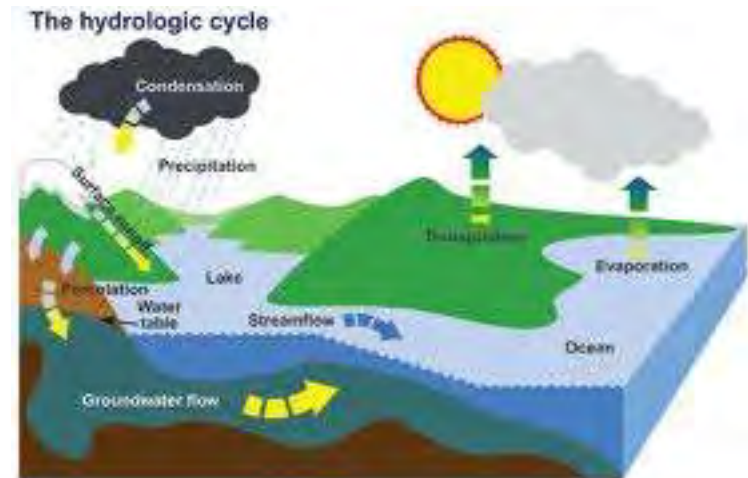
Pure water does not exist in the natural environment

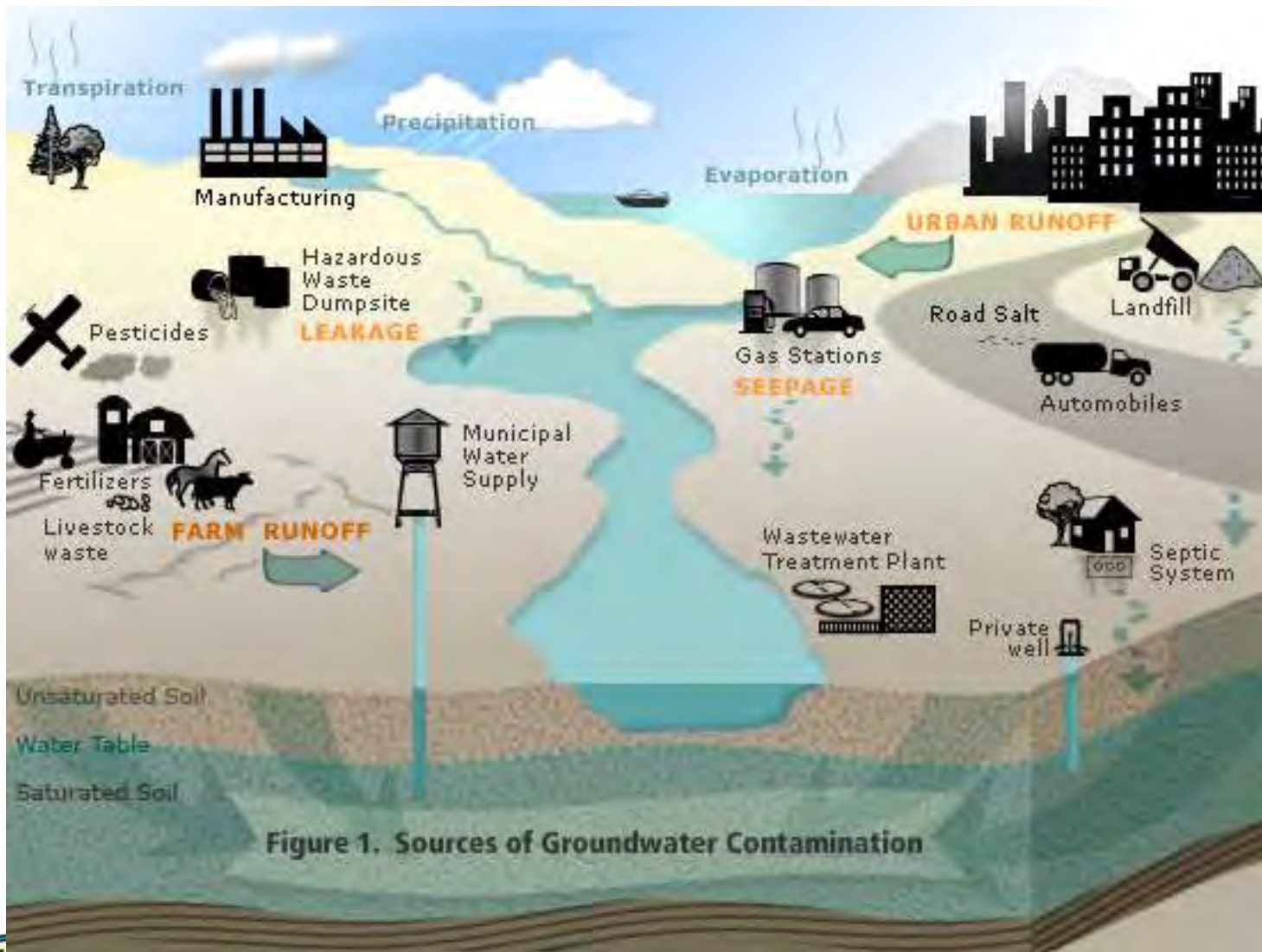


Salt dissolved in water

The myth of abundance

- Fact: Only 1% of Canada's Freshwater is Renewable (groundwater, contamination)





ACTIVITY: PROBLEM TREE

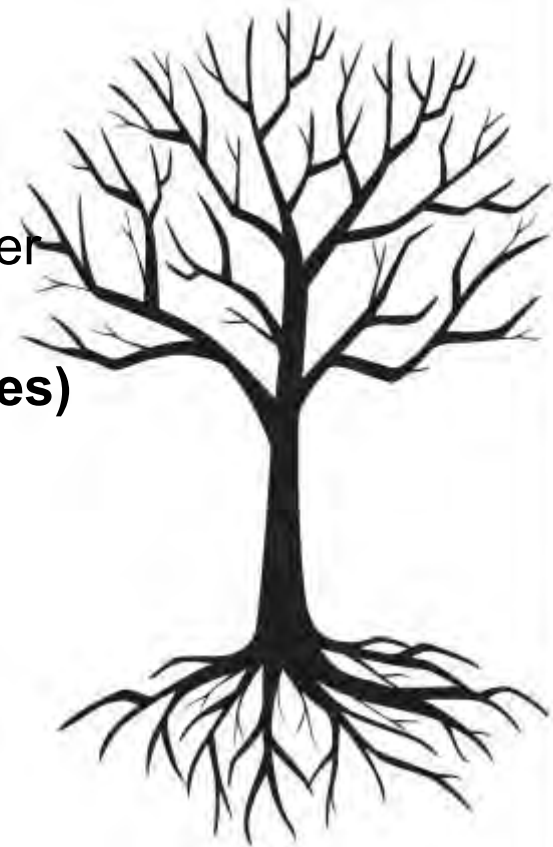
Problem: **Water Pollution has led to a decline in Water Quality**

Instructions:

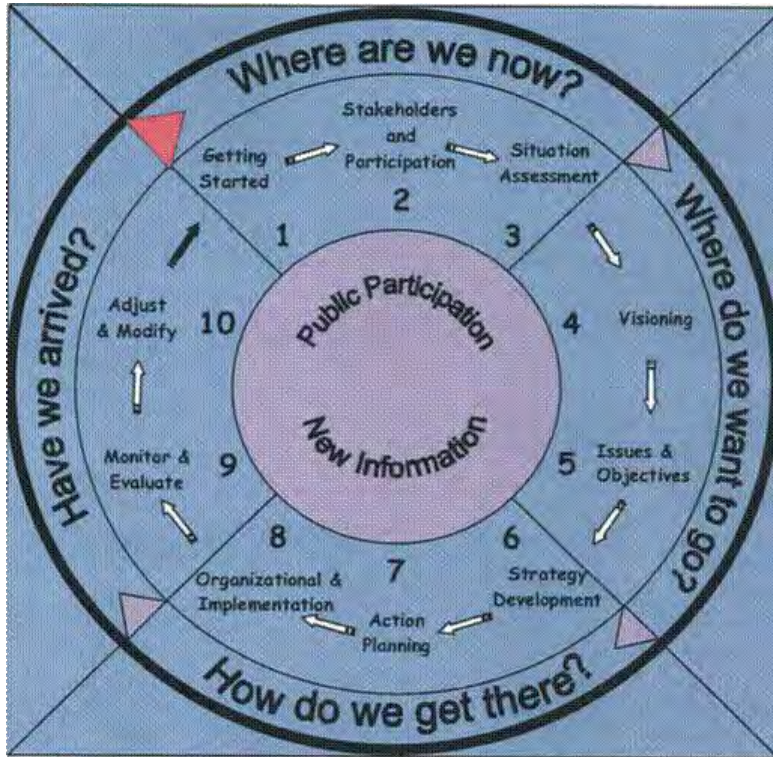
- a) What happens when there is a decline in your water quality? e.g. beach closed to swimming
 - One index card: **CONSEQUENCES (tree leaves)**

- b) What is one of the causes of the decline in water quality? e.g. heavy rainstorm
 - One index card: **ROOT CAUSES (roots)**

Post your index cards on the tree with tape provided



THE PLANNING PROCESS



Source: W. Trousdale, EcoPlan International, It



WWW.OFNTSC.ORG

2. ESTABLISHING YOUR VISION

- Define the scope of the planning process
- Yukon River Inter-Tribal Watershed Council – 70 First Nations & Tribes:

Our vision, put simply, is “to be able to drink water directly from the Yukon River”



Hands on planning

Working Community Planning Weekend, 2007, John Thompson & Partners.

“If you want to know how the shoe fits, ask the person who is wearing it, not the one who made it.”



ACTIVITY: WHY IS WATER IMPORTANT?

Instructions:

- In your break-out group discuss ***why water is important to you*** based on who you have been assigned
- Record your points on flipchart and post your sheet on the wall when finished.
- 10 minutes



WWW.OFNTSC.ORG

***In every deliberation we must consider
the impact on the seventh generation....***

Kaianerekowa
(The Great Law of Peace,
Haudenosaunee/Iroquois)



WWW.OFNTSC.ORG

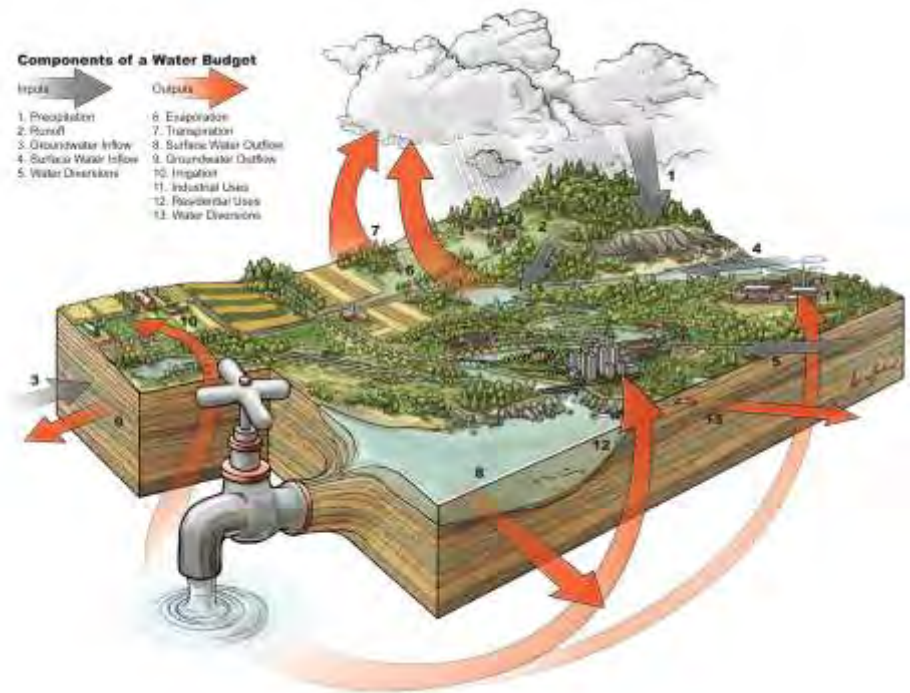
3. DATA COLLECTION

- Scientific/Technical + Community Data
- Community: issues, values, Indigenous Knowledge
- General Watershed Information



SCIENTIFIC/TECHNICAL ASSESSMENT

- Watershed Characterization
- Water Budget
- Water Quantity Threats Analysis
- Surface Water Vulnerability
- Groundwater Vulnerability
- Drinking Water Quality Threats Analysis



EVERY PROCESS IS UNIQUE

Survey:

- Who has a WTP? Surface or groundwater? Great Lakes intake? Who has wells? Both?
- Who has WWTP? Type? Who has septic? Both?
- Landfill on-reserve? Fuel tanks? Gas stations?
- Major roads? Harbours/marinas/boat traffic?
- Important waterbodies in community?
- Unique soils and geology e.g. fractured bedrock?
- What industry is in the area?
- What is going on in your watershed? Urbanized or not?



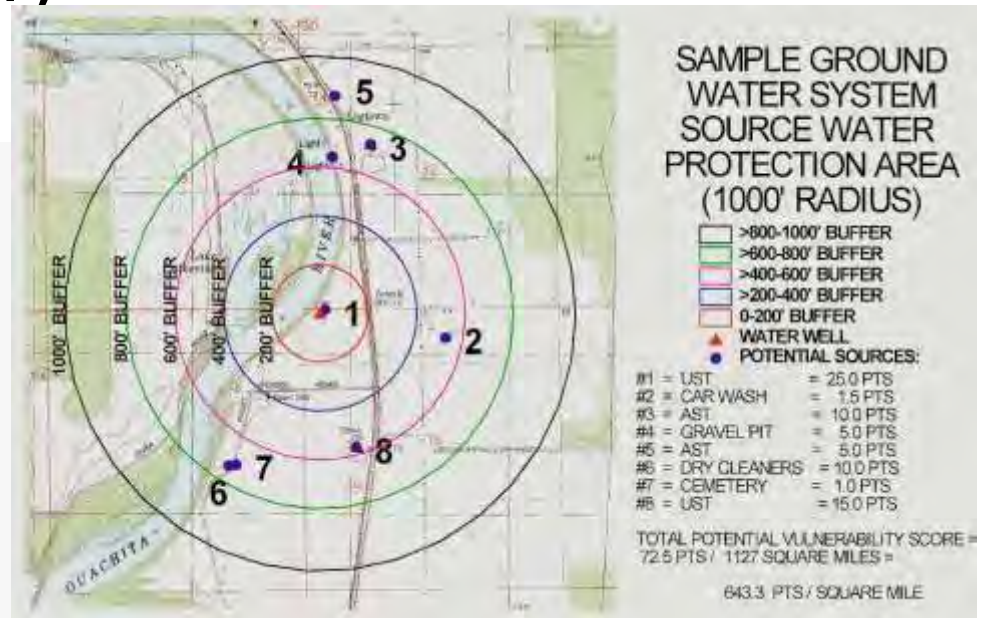
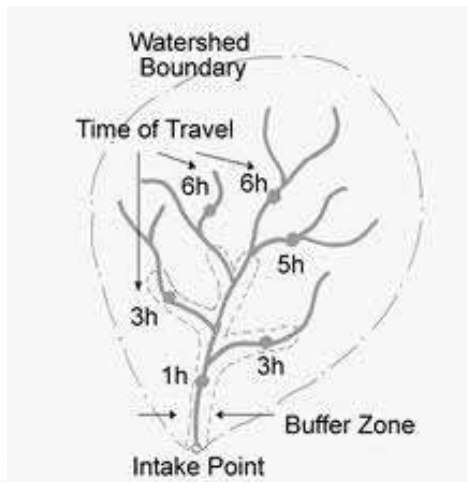
PHOTOVOICE EXAMPLE

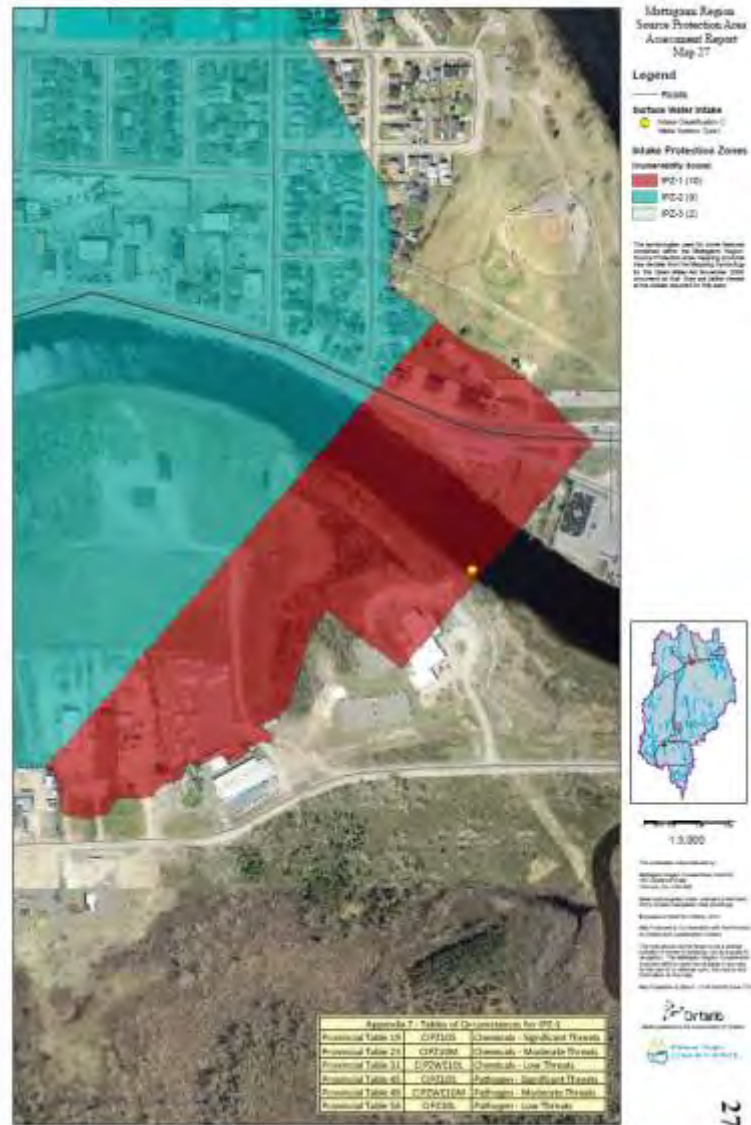
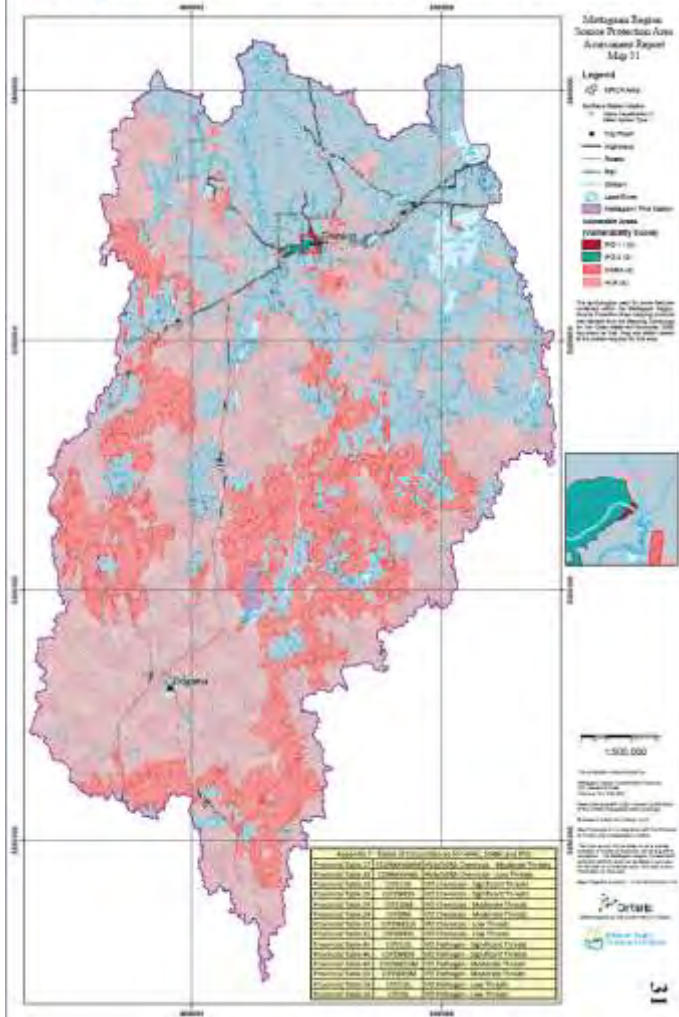
- Provides pictorial evidence of community issues (a picture being worth a thousand words)
- One example of a participatory activity
- “Participatory photography and digital storytelling”
- Tool for communication, self-expression & advocacy



4. RISK ASSESSMENT & TAKING ACTION

- Risk assessment:
vulnerable areas (4)
x threats (21)





DRINKING WATER THREATS

1. The establishment, operation or maintenance of a **waste disposal site** within the meaning of Part V of the Environmental Protection Act.
2. The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of **sewage**.
3. The **application of agricultural source material to land**.
4. The **storage of agricultural source material**.
5. The **management of agricultural source material**.
6. The **application of non-agricultural source material to land**.
7. The **handling and storage of non-agricultural source material**.
8. The application of **commercial fertilizer** to land.
9. The handling and storage of **commercial fertilizer**.
10. The application of **pesticide** to land.
11. The handling and storage of **pesticide**.
12. The application of **road salt**.
13. The handling and storage of **road salt**.
14. The storage of **snow**.
15. The handling and storage of **fuel**.
16. The handling and storage of a **dense non-aqueous phase liquid**.
17. The handling and storage of an **organic solvent**.
18. The management of runoff that contains chemicals used in the **de-icing of aircraft**.
19. An activity that **takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body**.
20. An activity that **reduces the recharge of an aquifer**.
21. The use of land as **livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard**. O. Reg. 385/08, s. 3.



TAKING ACTION

- The point of your plan is to effect change
- ACTIONS = policies, programs, education, etc.
- Example: Mattagami Region Source Water Protection Plan identified a “Septic Systems Policy”

VISION – Values & Direction

GOALS - What

OBJECTIVES - How

**ACTIONS:
Programs, Policies,
Projects**

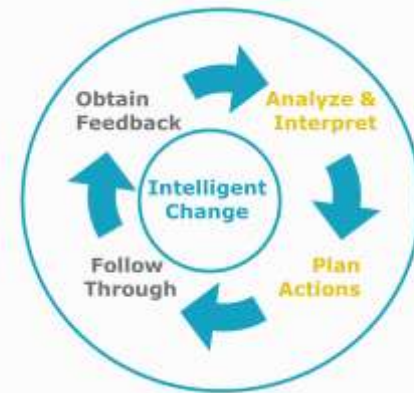
IMPLEMENTATION



ACTIVITY: BRAINSTORM ACTIONS

Instructions:

- In your break-out groups brainstorm possible actions that can be taken to address the risk you have been assigned
- ***Remember actions = policies, programs, projects***
- Record your actions on flipchart and post your sheet on the wall when finished.
- 10 minutes



ONTARIO ACTIONS

Soft Tools (non-legal mechanisms)

- Research programs
- Pilot projects
- Stewardship programs
- Incentives
- Education and Outreach
- Best Management Practices



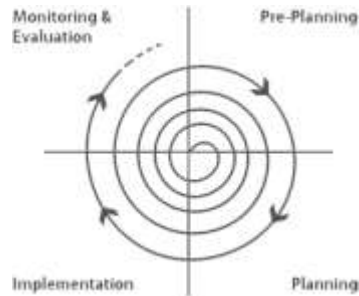
Regulatory Tools (legal mechanisms)

- Land use planning/other municipal tools
- Use of Prescribed Instruments (E.g. Certificates of Approvals, Permits, Nutrient Management Plans)
- Risk Management Plans- to be negotiated with landowner
- Prohibition



5. WRAP-UP

- SWPP is one component of larger plans
- Planning is a cyclical process
- Local/indigenous knowledge + scientific/technical
- Action-oriented!!



“A community that destroys its land forfeits its future.”



ACTIVITY: WHO HAS THE ANSWERS?

	THEY KNOW	THEY DON'T KNOW
WE KNOW		
WE DON'T KNOW		



WWW.OFNTSC.ORG

QUESTIONS?

Stephanie Allen
Environmental Scientist
OFNTSC
111 Peter St., Suite 606
Toronto, ON
M5V 2H1
Tel. (416) 651-1443 ext. 243
sallen@ofntsc.org

Deneen Brigham
Environmental Scientist
OFNTSC
200 South Syndicate Ave.
Thunder Bay, ON
P7E 1C9
Tel. (807) 623-9595
dbrigham@ofntsc.org



WWW.OFNTSC.ORG