

Water Terrorism

- Cyber Threats
 - The use of computer network tools to shut down critical national infrastructure
 - Energy, transportation, dams
 - The most likely form of water terrorism (Lewis 2002)
- Physical Threats
 - Destruction of infrastructure from explosives

Water Terrorism

- Examples:
 - Romania 1944 German military polluted a Romanian towns drinking water with human waste (biological)
 - 1985- A cult in the Ozark mountains were planning to poison the water supply of New York, Chicago, Washington D.C., with potassium cyanide (chemical)
 - 2000 Australian man gained control over the waste water system, releasing sewage into parks, rivers, and private properties. Did this using a laptop and radio transmitter (Cyber)
 - U.S. security heightened post 9/11

Strategies to Increase Public Education and Awareness

- Educate citizens to engage and inspire to permanently change behaviour
 - Websites
 - Newsletters
 - Annual water quality report and fact sheets
- Information should help public understand guidelines, conservation issues, costs of providing services, improvements, further research needs, pollution mitigation



Education

- Educating land owners on regular water testing and well maintenance
- Land owners should be aware of best management practices
 - Stream banks
 - Buffer strips
 - Tree planting
 - Fencing

Research & Science

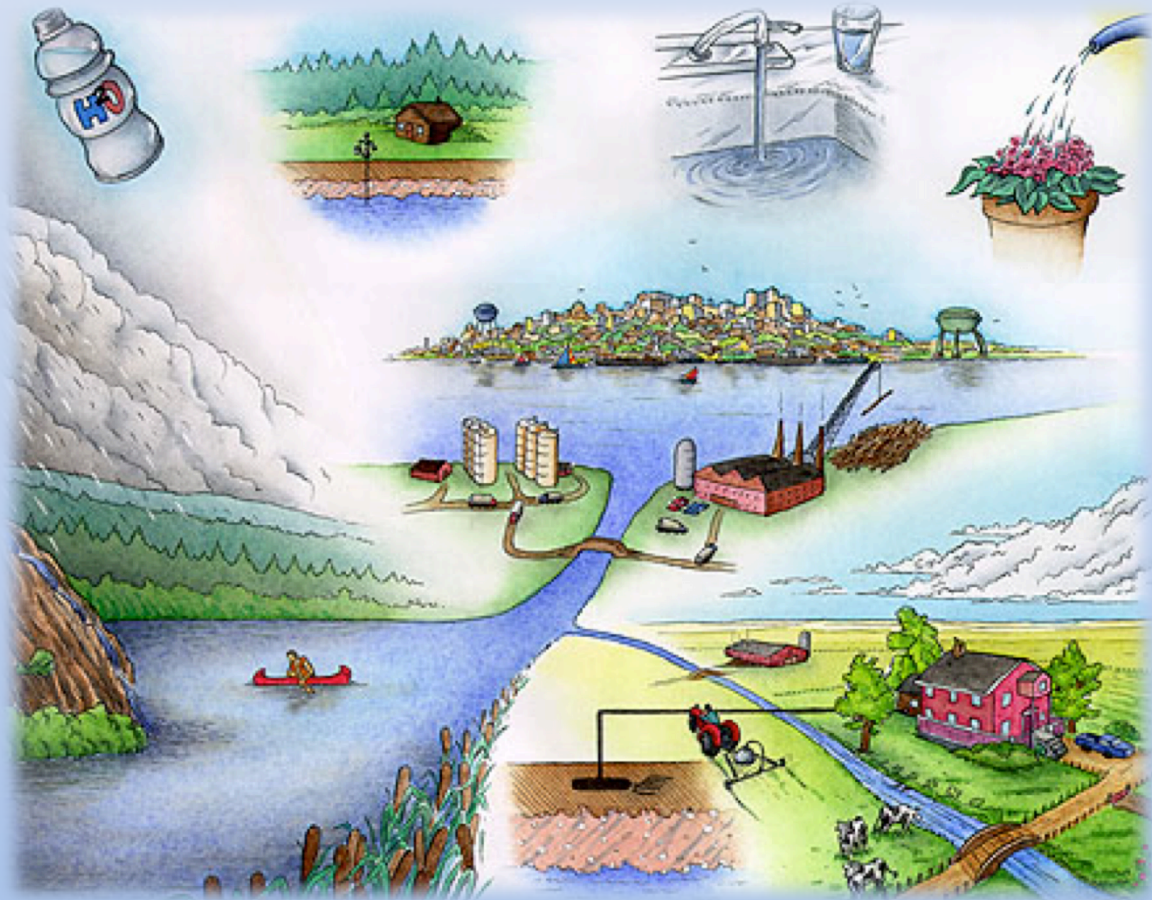
- Science-based decisions should be made - rather than on policies and assumptions which could result in measures that are overly or under-protective of human and ecological health.
- Research and development must be supported – it is not a cost, it is an investment in the future.
- Science is usually only 10-20% of the solution. The remaining management requires partnerships across jurisdictions, industry, commerce and the community.

Responsibility and Management

- Political Issues – Up/Downloading of responsibility
- Stewardship of landowners
- Preventive Risk Management Approach
 - Understanding water supply from beginning to end
 - Know the ways it can be contaminated and the required treatments
- Example: The Multi-Barrier Approach
 - Identifies all known and potential hazards
 - Ensures barriers are in place to reduce or eliminate risk of contamination

Closing Remarks

- Better knowledge of who is responsible
- Recognizing tomorrow's threats and finding the solutions today, rather than looking to solve today's problems tomorrow



MINISTRY OF THE ENVIRONMENT
DRINKING WATER ONTARIO

The background of the slide is a close-up photograph of water with numerous small, concentric ripples. The water is a light blue-grey color, and the ripples create a textured, shimmering effect across the entire surface.

What do you think is the best way to manage untapped threats?

What other threats may exist to our drinking water supply?