

# **LESSONS FROM WALKERTON PROACTIVITY TO PROTECTION**

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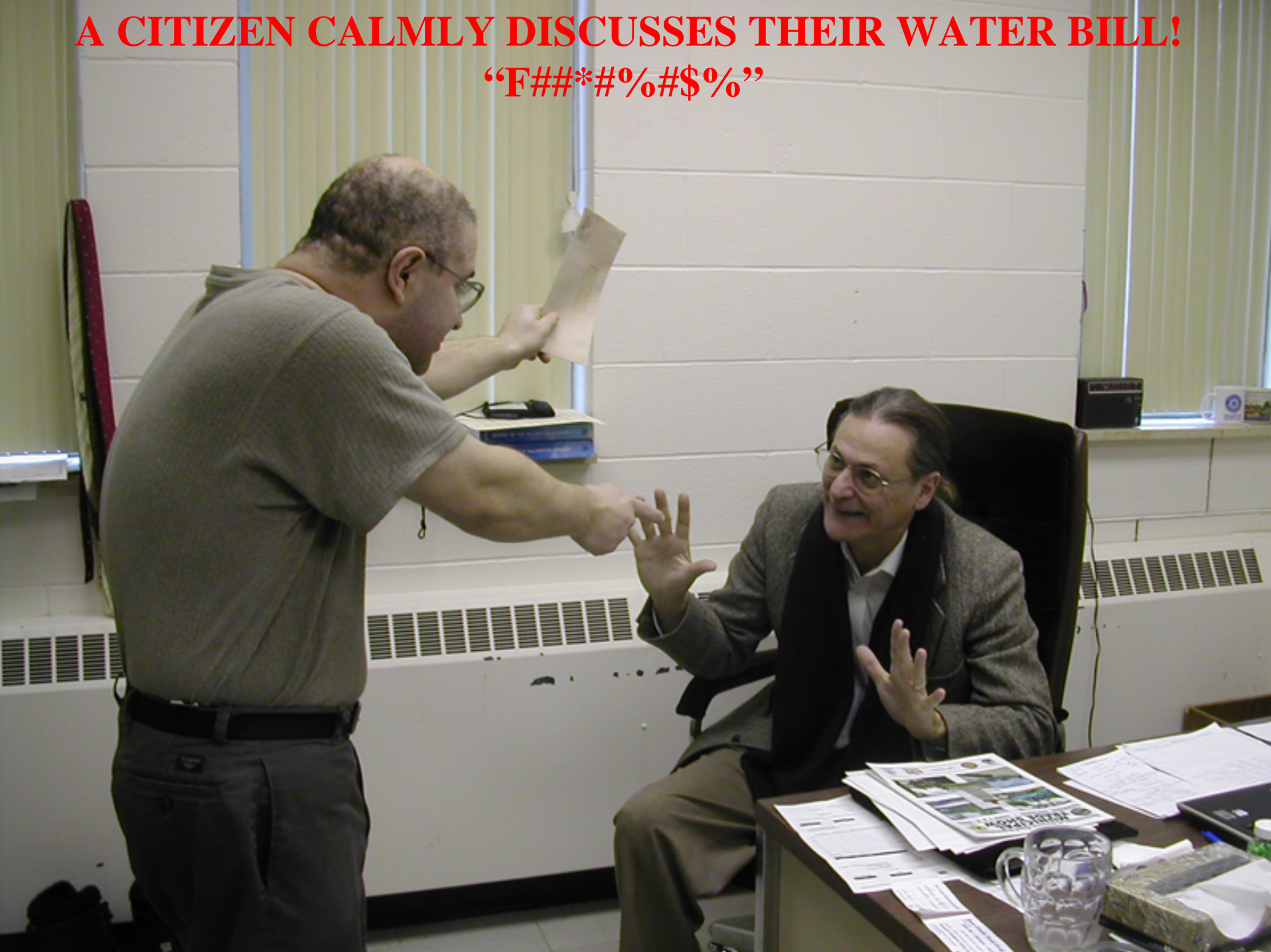
# **PUBLIC EXPECTATIONS OF MUNICIPAL WATER SERVICE**

- Safe
- Cheap
- Without interruption
- Limitless
- Aesthetically to my taste



**A CITIZEN CALMLY DISCUSSES THEIR WATER BILL!**

**“F##\*#%#\$%”**





# REQUESTING FINANCIAL SUPPORT FOR A WATER CONFERENCE





# **BUT OUR WATER HAS ALWAYS BEEN GOOD**

- Compared to what and based on what?
- Walkerton over 20 years had chronically contaminated water.
- Until now everything has been OK?

# CHANGING CONDITIONS AND RISK TO WATER

- Intensive Industry
- Intensive Agriculture
- Urban Sprawl
- Evolving Micro Organisms
- Is E-coli the last water borne pathogen we will face?



# WHAT IS CONTAMINATED WATER?

- What does another Walkerton really mean?
- Chronic exposure to moderate levels of contamination.
- Sporadic water related illnesses may be misinterpreted.

# **MULTI BARRIER APPROACH**

- Source to tap protection of water.
- Water shed management.
- Regulatory framework and enforcement.
- Treatment and distribution.



# **THE EVOLVING NATURE OF MUNICIPAL ACCOUNTABILITY**

- Perception is reality.
- Accountability.
- Pro-activity.
- Example – Walkerton's systemic breakdown.



MAURICE BOLDUC, RCMP

An aerial view of Well #5 and the surrounding area



# **FAILURE OF ACCOUNTABILITY AND PRO-ACTIVITY**

- Training
- Maintenance
- PUC
- MOE
- Health Unit
- Spills Action
- Government Warnings
- Risk Management

# THE COST OF GETTING IT WRONG

- Experts suggest up to 15% of population may suffer Post Traumatic Stress Syndrome.
- Loss of business to other communities.
- Municipal insurance 3 times average cost.
- Cuts to MOE \$40 million.
- Cost of tragedy \$150 million.
- Ongoing illness.



# LIFE WITHOUT POTABLE WATER

- Walkerton 7 months under Boil Water Order.
- Some communities are years without potable water.
- Non potable water adds 3-4 hours of work per adult per day.
- Confidence in all government services is undermined.





**From cooler to bath tub.**



**Hand washing, boiling and shaving.**





**10 Liters required to flush a toilet**





**45 Liters required to prepare 1 pot of  
stew and wash dishes.**



**Wading pool 275 liters.**

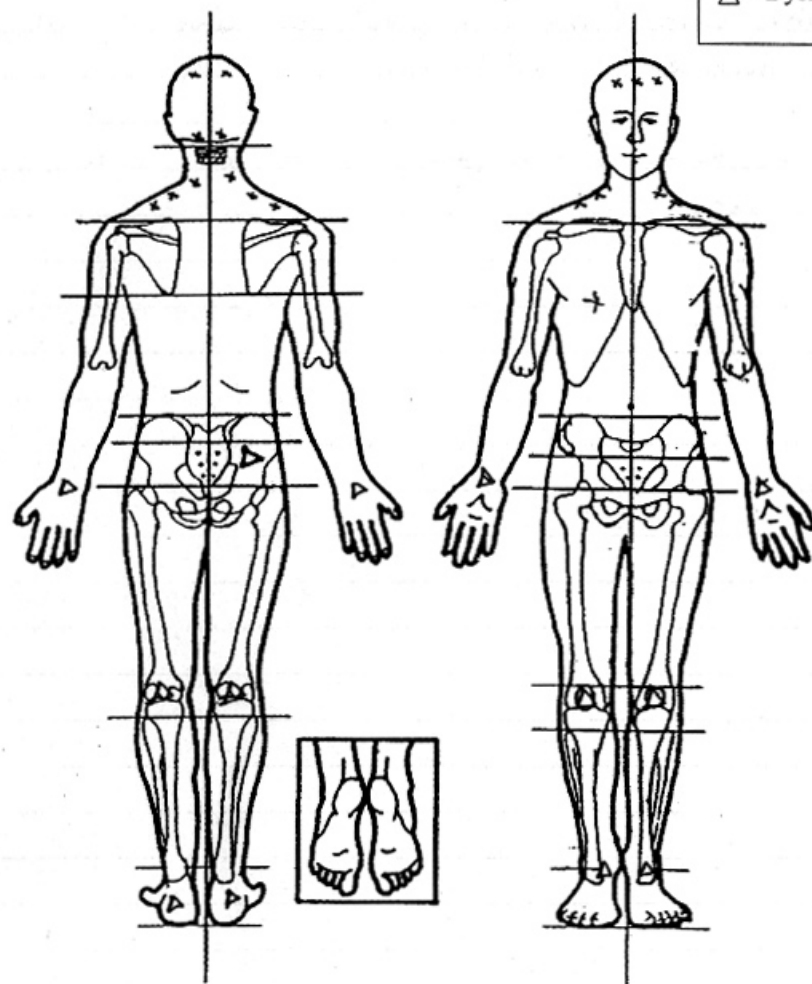




Please indicate **current symptoms/conditions** using the index and diagram of the human body provided:

**Index:**

X = Pain  
O = Condition  
(diagnosed by doctor)  
△ = Dysfunction



Has a medical professional documented/indicated a relationship between your diagnosis and the 2000 water contamination exposure? (please circle appropriate) ☒ Y ☐ N

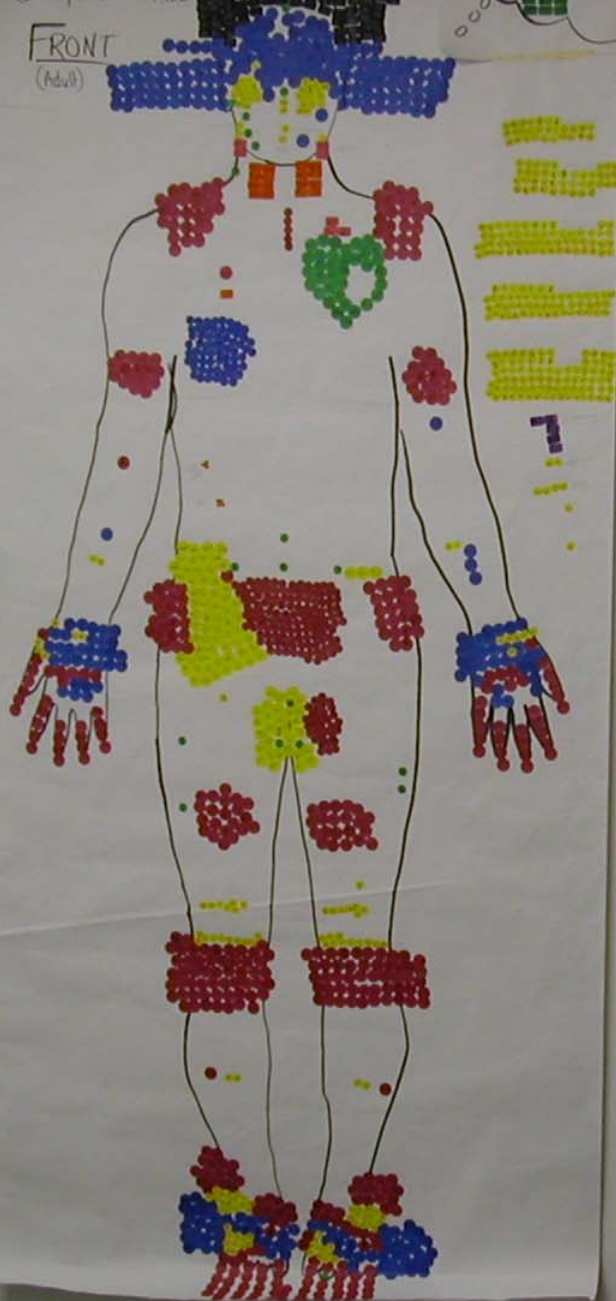
# **WATER MAIN BREAK**

- Cost of repair.
- Protocol – 2 negative tests to confirm potable status.
- Boil water order approximately 7 days.
- Water pressure loss in higher elevations of town.
- Nursing home seeking cost recovery for labour and bottled water expenses.

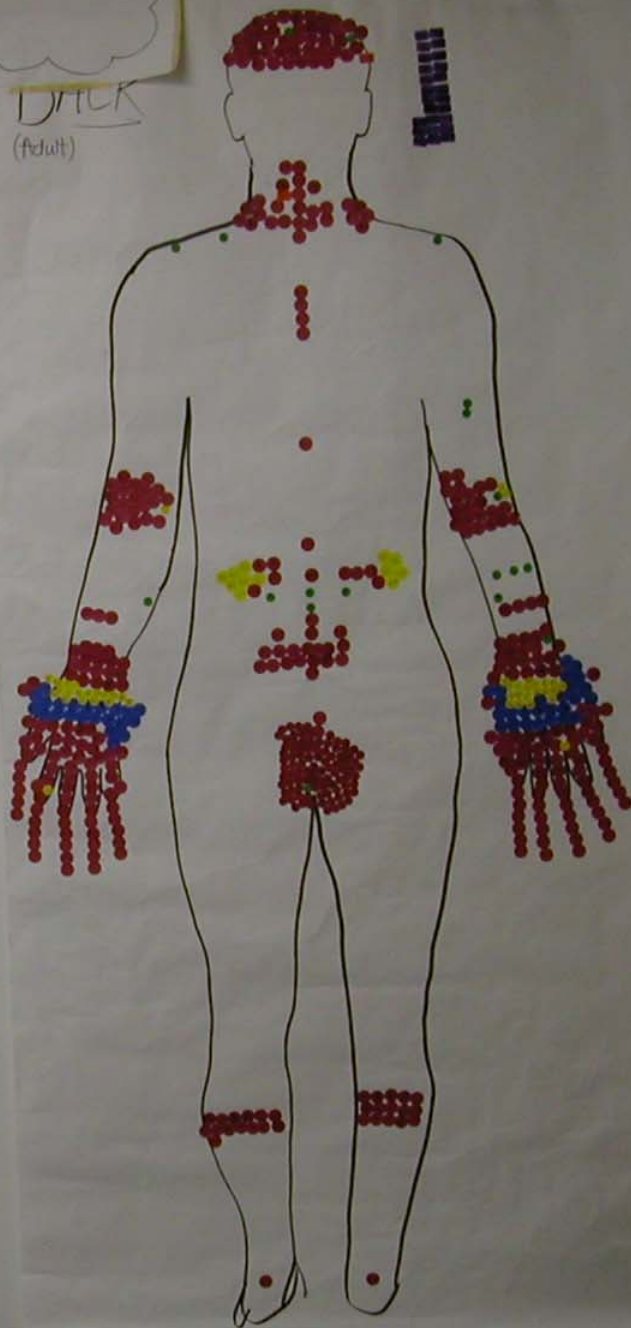


Community of Walkerton (first)

FRONT  
(Adult)



BACK  
(Adult)



# CONSEQUENCES OF ILLNESS

- Hemolytic Urea Syndrome
- Irritable Bowel Syndrome
- Reactive Arthritis
- Post Traumatic Stress Syndrome
- High blood Pressure
- Diabetes







# **HOW CLOSE MUST ILLNESS COME BEFORE WE ACT?**

- Woman with IBS.
- Man with reactive arthritis.
- Young boy with gout symptoms.
- Man with diabetes and high blood pressure.



# COMPENSATION PLAN

- Initial payment \$2000 per resident.
- Water disruption - \$1000 per child - \$4000.  
per adult.
- Business losses.
- Illness compensation.
- Ongoing illness compensation.
- Property losses.

# PROACTIVITY TO PROTECTION

- Professional water management team.
- Certified operators.
- A certified operator means training, knowledge, experience, competence, comprehension of regulations and a commitment to the profession.
- Local operators supported by water management team.
- Risk management.
- Emergency preparedness plan and simulation.



# EMERGENCY PREPAREDNESS

- What is a “State Of Emergency”?
- Above a municipalities ability to respond.
- Volunteer worker coverage?
- Additional expertise.
- Availability of federal funding.

# PROACTIVITY TO PROTECTION

- Water 101.
- Safe Drinking Water by Steve Hrudey.
- Wellhead protection.
- Watershed based protection.
- Surface water monitoring.
- Hydrogeology.
- Water resources mapping.
- Water budget.
- Utilization of provincial resources.



# INSURANCE DELEMA

- Many players named in various lawsuits.
- Two main insurers involved.
- Approximately \$30 million coverage.
- Approximately \$17 million in insurance pay outs.
- Balance of costs to be assumed by province.









ANTIQUE  
PARLOR  
HOME DECOR

Barber Shop



















# Functional Relationships

- Department heads – frontline workers.
- Elected municipal officials – department heads.
- Municipal government – provincial ministries.
- Provincial ministry to provincial ministry.
- Provincial ministry to federal ministry.
- Municipal government (media) public.



**DANGER**

**STARTS  
AUTOMATICALLY  
KEEP HANDS CLEAR**





## WELL 5 MEMORIAL

This plaque marks the location of Walkerton's former Well 5 which supplied a portion of the town's drinking water from 1978 into the spring of 2000. In mid May of the year of 2000, extremely heavy rains washed a toxic blend of biological pathogens through the soils and into the vulnerable shaft of Well 5 and ultimately into Walkerton's Municipal drinking water system. The resulting contamination of the town's drinking water system lead to the deaths of seven people and caused thousands of others to fall ill. It is hoped that all those who visit this location will reflect upon the multiple causes of this tragedy and will be filled with a renewed reverence for the comprehensive stewardship of the waters that sustain us all.

MUNICIPALITY



OF BROCKTON



