LOCAL STORIES:
Citizen Action to Ensure Safe Drinking Water in Ontario

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1. EXECUTIVE SUMMARY

Ontario communities face a multitude of potential drinking water concerns, ranging from chemical and microbiological contamination to rusted pipes and overtaxed treatment systems. This study documents the efforts of five groups across the province, four citizens groups and one First Nation, to safeguard their drinking water from such problems. It also reveals how initial limited government response to local concerns has forced citizens to pursue political or legal action to protect community health and their local water supply.

Though drinking water on native reserves falls under federal jurisdiction, the Attawapiskat First Nation was included in this study because First Nations are consistently among the most disadvantaged users of drinking water services in the province.

The groups profiled here have followed several diverse courses of action. They have mounted legal challenges in venues such as the Ontario Municipal Board, the Ontario Divisional Court and the Ontario Superior Court. They have also met with politicians and government officials, and petitioned the Auditor General of Canada. As they have found, however, these types of efforts do not guarantee clean drinking water for affected communities. Citizens typically encounter numerous obstacles that inhibit prompt and necessary action, including:

- inadequate responses to their concerns from politicians and government officials;
- insufficient legal protection for drinking water sources;
- limited public participation in decision making;
- significant financial cost of legal challenges;
- limited access to information;
- poor communication between government agencies;
- inadequate communication of health threats to the local community; and
- chemical contamination treated as secondary importance as compared to microbiological contamination.

Clean drinking water is a basic human need and human right. Citizens should not have to fight for it.

SUMMARY TABLE OF LOCAL STORIES

GROUP	LOCATION	DRINKING WATER THREAT/ PROBLEM	ACTION TAKEN BY GROUP	MAIN GOVERNMENT BODIES INVOLVED	MAJOR OBSTACLES	RESULT	FINANCIAL EXPENSES	KNOWN DURATION OF PROBLEM
Attawapiskat First Nation	Western shore of James Bay	Problems with physical parameters (colour, smell, and taste) due to an overtaxed treatment system and inadequate source. Bacteriological contamination from stagnant source and inadequate treatment supplies.	Meetings with government.	Department of Indian Affairs and Northern Development.	• inadequate government involvement; • insufficient federal funding for infrastructure projects; • coordinating three-way government.	New treatment plant is planned to be operational in May 2001, but using funds earmarked for badly needed housing.	Undisclosed.	Late 1980s to present
Beckwith Water Contamination Committee	Beckwith	Trichloroethylene (TCE) and Vinyl Chloride (VC) contamination from an abandoned landfill and scrap yard.	Sent a petition to the Auditor General of Canada.	Ministry of the Environment; Health Canada; Environment Canada; Beckwith Township Council.	• no support from politicians; • no support from government agencies; • poor inter-agency communication; • government officials not voluntarily providing information.	Filters installed in all homes and buildings with TCE levels at or above 5 ppb and VC at or above 2 ppb.	Environmental NGO provided services free of charge.	2000 (Spring) to present
Fort Erie Water Advocacy Group	Fort Erie	Discolouration and high iron content in drinking water due to rusted pipes in the distribution system. Bacteriological contamination from holes in the pipes of the distribution system.	Launched a $30 million class-action lawsuit.	Ministry of the Environment; Ministry of Health; Town and Region.	• no support from government agencies; • government denial of a problem; • government not forthcoming with information.	Town now tests water more frequently and has invested about $10 million in infrastructure improvements.	Undisclosed due to confidentiality.	1993 to present
Four Corners Environmental Group	Township of Greenock	Proposal for a limestone quarry threatened the supply of local drinking water.	Challenged the quarry proposal at the Ontario Municipal Board.	Ontario Ministry of Agriculture, Food, and Rural Affairs; Ministry of the Environment; Ministry of Natural Resources; Department of Fisheries and Oceans; Bruce County Council.	• no support from politicians; • financial costs; • inconsistent responses from different government agencies; • inadequate drinking water source protection.	Quarry license was denied.	More than $90,000.	1993 to 2000
Rural Ontario Stewardship Association	Township of Biddulph	A proposal for an intensive livestock operation posed threats of bacteriological contamination and high levels of nutrients, such as nitrogen and phosphorus.	Challenged proposal before the Normal Farm Practices Board and the Ontario Divisional Court.	Ontario Ministry of Agriculture, Food, and Rural Affairs; Biddulph Township Council.	• no support from government agencies; • inadequate response from local government; • financial costs; • inadequate information.	Proponent conceded to the appeal.	More than $60,000.	1998 to 2000

2. INTRODUCTION

The tragedy in Walkerton, Ontario, in May 2000 dispelled the myth that Canadian communities are immune to serious drinking water contamination. The severity of the matter prompted a public inquiry not only into the E. coli contamination of Walkerton's water supply, but also into the safety of drinking water across the province. As a result, Canadians are questioning the water flowing from their taps, and rightly so. Water systems, both communal and private, are not immune to serious contamination problems simply because they are not causing death or dangerous illness. This study illustrates several examples of existing problems with or potential threats to the drinking water in various Ontario communities, as well as the steps local residents were forced to take to resolve the problems.

2.1 Purpose

In documenting the responses of five Ontario communities to local drinking water threats, numerous obstacles will be identified that inhibit citizens from taking prompt action to safeguard their drinking water. The information provided in these stories is not exhaustive, but a cursory overview of the experiences of the selected groups. Despite federal jurisdiction over drinking water on First Nation reserves, Attawapiskat was included in this study because First Nations are consistently among the most disadvantaged users of drinking water services in the province.

The first three stories documented in the "The Local Stories" chapter involve responsive action to an existing problem, whereas the last two stories involve proactive action towards a potential threat to local drinking water supplies.

A sixth story from northern Ontario was originally drafted. However, at the group's last-minute request, it was removed from the study. If interested, information on this story can be found in *The Toronto Star* of July 15, 2000 (p. A1).

2.2 Methodology

The five stories were selected according to the types of threats and problems (qualitative and quantitative) faced by the local group, the type of response from the group (i.e. proactive or reactive), and the geographical location of the affected community.

One representative from each of the four citizens groups and the First Nation was contacted and asked to provide the following, if available:

- a written history of their story;
- legal correspondence;
- government correspondence;
- press coverage;
- scientific studies; and

- any other pertinent material.

Following a preliminary review of the submitted materials, a series of questions was sent to the group's representative, followed by a telephone interview with the representative. Interviews were not conducted with government officials or proponents of projects that posed a potential threat to drinking water supplies.

The study was reviewed by the group representatives, as well as professionals from a variety of fields.

3. THE LOCAL STORIES

3.1 FORT ERIE WATER ADVOCACY GROUP

Since 1994, residents of the Town of Fort Erie have had aesthetic and bacteriological problems with their drinking water. The initial voicing of their concerns with the physical properties of the town's water brought minimal responses from all levels of government, which led to a class-action lawsuit against the Town and Region. Water sample tests commissioned by Fort Erie Water Advocacy Group (WAG) in preparation for the lawsuit, as well as a Freedom of Information (FOI) request for the town's water sample test results, further revealed bacteriological contamination in the distribution system on numerous occasions.

3.1.1 The Group

Since 1994, the Fort Erie WAG has been calling for government action to improve the public water distribution system of Fort Erie. WAG is a grassroots organization of approximately 80 members, administered by a three-member executive committee. About 20 individuals are actively involved, including nurses, lab technologists, and high-school teachers. The group has no assets.

WAG has actively undertaken a number of initiatives to educate the public concerning the state of the water supply in Fort Erie, as well as to improve water quality and water management. It has also collected information on local water quality complaints, and researched the history of water management in the area.

3.1.2 The Drinking Water Problem

The problems with Fort Erie's drinking water in evolved in two stages. Beginning around 1994, corrosion of the cast iron pipes that deliver water from the Rose Hill Treatment Plant caused the release of large quantities of particulate iron into the town's water supply. This pollution, which could last for weeks, would produce high iron counts and a typically orange, red or brown discolouration in the tap water, which in turn left stains and residue on sinks, toilets, bathtubs, and various household appliances and water fixtures.

Subsequently, water in the distribution system began testing positive for the presence of coliform bacteria and E. coli bacteria on a number of occasions. The contamination was occurring not at the treatment plant, but after the water had entered the distribution system through holes in the pipes. The fluctuation of water pressure in the water mains, which can occur for a variety of reasons (including breaks in the pipe or pumps shutting down), enabled bacteria to enter the pipes. The likely source of the bacteria was leaking sewer mains located near the water mains.

3.1.3 The Story

Between 1994 and 1997, WAG met on several occasions with municipal, regional, and provincial officials regarding the concerns of residents over the discolouration of their tap water, the level of iron content in the drinking water, and other water management issues.

In September 1996, the number of complaints in Fort Erie multiplied. An engineering report commissioned by the town indicated a number of possible reasons for the water problems, including changes in treatment practices and changes in the alkalinity of the original source water.

WAG and other concerned citizens demanded action from the town and region to resolve the problems. All of these requests were ignored.

As a result, Shirley Grace, the President of WAG, agreed to act as the representative plaintiff in a $30 million class-action lawsuit against the Town and Region. The class included everyone owning or occupying property in the Town of Fort Erie whose water was being supplied by the Town and Region.

Since the launch of the lawsuit, the Town has expended almost $10 million on water infrastructure improvements, including replacing more than 70% of the iron piping. In comparison, the Town's annual budget for the replacement of cast iron pipes between 1994 and 1996 was $200,000. Furthermore, the Town has more than doubled its testing of the municipal water supply, and has undertaken a comprehensive system of maintenance and regular flushing of the system.

Nonetheless, further water problems have been revealed. In preparation for the lawsuit, WAG retained an environmental consulting firm to test for iron levels in the water, and to conduct a background scan for the presence of bacteria. In August 1997, samples taken from 25 sites throughout the municipal water supply area indicated the presence of coliform bacteria in seven samples and E. coli bacteria in one sample. Samples taken later by the Niagara Medical Officer of Health indicated no presence of either coliform or E. coli bacteria.

From November 1997 to July 1998, WAG continued to test approximately 25 to 40 samples per month from a minimum of 25 sites. Through this period, coliform was detected in 84 tests and E. coli was detected in 38 tests. The tests further revealed low or non-existent levels of chlorination in some samples, in addition to high concentrations of iron in many samples.

WAG proceeded to notify the Medical Officer of Health of each sample that tested positive for coliform or E. coli, and employees of the Regional Health Department were sent to conduct follow-up tests. However, these retests were typically conducted days after notification, and as a result, the region's test results often differed from those conducted by WAG.

In early 1998, WAG accessed the Town's and Region's water testing results for the previous three years using the *Municipal Freedom of Information Act*. These results revealed positive readings for the presence of coliform bacteria on 39 occasions and for E. coli on 8 occasions

between May 1995 and June 1997. That is, Fort Erie's municipal drinking water should have been determined unsafe 16 times in 15 months, pursuant to the definition of "unsafe water" described in the Ontario Drinking Water Objectives (ODWO).[1] However, affected residents were never notified of any water quality problems.

Moreover, when water is judged to be unsafe, the ODWO mandates that "special sampling" be conducted, which includes resampling at the site of a positive test, sampling upstream and downstream from the site, and testing at the site for residual chlorine. Yet local authorities never conducted the required special sampling on any occasion.

Alarmed by the potential health threats to local residents as a result of the Town's and Region's deviation from provincial guidelines, WAG proceeded to notify the public of the Town's and Region's testing results, as well as their own testing results, through press releases and advertisements in local newspapers. WAG continues to notify the community of testing of water samples that indicate substandard water quality.

3.1.4 Major Obstacles and Lessons Learned

1. **Group Ignored By All Levels of Government**. Local, regional, and provincial officials undertook minimal action to address the water quality concerns of WAG and other citizens until the class-action lawsuit was launched against the Town and Region.

2. **Government Denied the Existence of a Problem**. Local officials, the Medical Officer of Health, and the Ministry of the Environment (MOE) were not open to the possibility that different types of problems, aside from total system breakdown that leads to illness and death, were possible. Moreover, they dismissed the possibility that water already in the distribution system could be contaminated through holes in the pipes, despite a study conducted by the American Water Works Association supporting this claim.

3. **Government Not Forthcoming with Information**. The Town forced WAG to resort to the *Municipal Freedom of Information Act* in order to obtain test results and other materials produced by the Town concerning local drinking water quality.

3.1.5 A Local Voice

"Given that water is such a necessary resource, it's been very unfortunate to see how unresponsive all levels of government have been when 'red flags' have appeared."

- Eric Gillespie, Counsel for *Fort Erie Water Advocacy Group*

[1] The ODWO defines "unsafe water" as any water containing any E. coli bacteria, or any water in which 10% or more of a set of distribution samples is found to be positive for coliform bacteria, or any situation where an individual site produces consecutive positive samples.

3.2 BECKWITH WATER CONTAMINATION COMMITTEE

In a rural community just west of Ottawa, the Beckwith Water Contamination Committee has spent the last year struggling to protect community health from drinking water contaminated by trichloroethylene and vinyl chloride. The group has been actively advocating that filters be provided to all households or buildings with a contaminated well, and that an alternative source for drinking water be used to supply the community.

3.2.1 The Group

The Beckwith Water Contamination Committee (BWCC) was formed in March 2000 after the discovery of TCE-contaminated water in Beckwith. The group consists of 12 active residents who have volunteered countless hours of their time in collecting information, launching a web site (www.beckwith-water.org/) to inform the community, and speaking with government officials. The group's members include technical experts in the areas of toxicology, air quality, and information technology. BWCC has no financial assets.

The community has been split over the issue. Many support the BWCC and its concerns about community health, while others are content with the government's action. Still others fear that the group's demands for filters and a new source of drinking water will raise taxes. No legal action has been taken by the BWCC.

3.2.2 The Drinking Water Problem

In March 2000, government officials informed Beckwith residents that private wells had tested positive for trichloroethylene (TCE), which is designated a "toxic substance" under the *Canadian Environmental Protection Act* and was identified as a "probable carcinogen" in 1993 by Environment Canada and Health Canada. TCE degradation compounds, such as vinyl chloride (VC), were also detected in numerous wells in Beckwith. Approximately 260 households and businesses, as well as a public school with 600 students and staff, fell within the plume area.

TCE is a highly volatile liquid used primarily in metal degreasing operations. The suspected source of contamination in Beckwith is an abandoned landfill and scrap yard known as the Levine Property, which accepted waste from the Town of Carleton Place and Beckwith Township from 1966 to 1973.

TCE poses a threat to human health through ingestion, inhalation, and dermal absorption. The Ontario maximum acceptable concentration for TCE in drinking water is 50 ppb, following Canadian guidelines set by Health Canada and Environment Canada. In comparison, the U.S. standard for TCE in drinking water is 5 ppb (U.S. EPA, 2001)

3.2.3 The Story

TCE was first detected in a single well in Beckwith in the late 1980s. The contaminated private well, which was 120 feet deep, was believed to be an isolated incident. Other wells in the area, which were 60 feet deep, did not indicate any TCE contamination.

TCE was not detected again in Beckwith for more than a decade, as standard testing of private wells throughout the 1990s did not include tests for the contaminant. However, in March 2000, extensive testing conducted for a development proposal revealed contamination once again. The MOE initially believed that the contamination was limited to a small number of streets, and notified the affected residents not to drink the water. The MOE later learned that the size of the plume was 9 km by 3km.

The MOE's public communications strategy was limited at the outset. However, with increasing demands from local residents for more information, a Public Liaison Committee (PLC) was established in April to provide the community with updates and to address public concerns. The PLC includes representatives from the MOE, Health Unit, Township Council, and BWCC. Meetings are held twice per month and are open to the public.

Also in April, the local Medical Officer of Health, Dr. Gardner, required that bottled water be provided to all residents within the known plume area, even though most households did not exceed the Ontario TCE standard of 50 ppb. His justification for such action was the variability of the test results. All households with TCE or VC levels above the Ontario standards were provided with filters. Until the end of the year, approximately one new household per week was provided with a filter.

Concerned about residents using or consuming TCE-contaminated water at any level, the BWCC continued to push for additional filters for all affected households and buildings. However, no action was taken by government officials. The BWCC thus contacted Sierra Legal Defence Fund (SLDF) in September 2000.

SLDF proceeded to conduct research that provided a more complete picture of the health threats facing the community of Beckwith, as well as the inadequacy of current Canadian regulatory practices towards TCE. In reviewing toxicological and epidemiological studies performed by Health Canada and Environment Canada in 1993, as well as research on health effects from inhalation and dermal absorption of TCE, SLDF identified risks that had not been previously communicated by the involved government agencies to the residents of Beckwith. The MOE informed the BWCC that they were not previously aware of these studies.

In October 2000, SLDF prepared a petition to the Auditor General of Canada on behalf of the BWCC. The petition generally called for the need to regulate TCE and to lower the Canadian Drinking Water Guideline for TCE. With regards to Beckwith, it called for the federal government to provide a safe supply of water for the residents immediately, and to provide funding and assistance to clean-up the contamination.

Over the next two months, the BWCC was sent back and forth between Health Canada and the MOE, as the government agencies appeared uncertain as to who was authorized to lower the TCE standard. Health Canada eventually made it clear that provinces may institute standards different from those specified in the federal guidelines.

As a result, Dr. Gardner requested that the MOE adopt the U.S. standard for Beckwith and provide filters to all households with TCE at or above 5 ppb and VC at or above 2 ppb. By early January 2001, an additional 69 homes were provided with filters, bringing the total to 110 households. The remaining 150 households, as well as the public school, continue to receive bottled water. However, affected residents without filters still use TCE-contaminated water for washing and bathing.

An alternative water supply is currently being sought through an open public process. Three studies have been commissioned to identify possible sources. To date, only one has been completed.

3.2.4 Major Obstacles and Lessons Learned

1. **Absence of Political Support**. Politicians in all jurisdictions have been reluctant to become involved. For example, the township council took no initiative, choosing to wait for direction from others. Moreover, local MPP Norm Sterling took minimal interest in the BWCC's concerns at the outset. However, since the new filters were provided in January 2001, his interest in the matter has increased.

2. **Poor Inter-Agency Communication**. Health Canada claimed it was the Province's responsibility to institute a more stringent standard, yet the MOE claimed new standards could only be implemented by the federal government.

3. **Government Officials Not Voluntarily Providing Information to the Public**. The relevant health information was brought forward by the BWCC, not the appropriate government agencies. In their attempts to get these answers, the BWCC was forced to circumvent the township council.

4. **Government Ignored the Local Group**. The involvement of SLDF was a significant turning point in government's response to the community's water threat. Prior to contacting SLDF, the BWCC felt it was being ignored by government officers and politicians. However, the national environmental organization, as well as the petition, attracted greater attention from media and government alike.

3.2.5 A Local Voice

"I'm afraid that the Beckwith problem is just the beginning. Authorities are basically stumbling in the dark trying to figure out what to do about garbage disposal and drinking water issues. It's a huge problem with no reasonable answers in sight."

- Kim McArdle-Buse, *Beckwith Water Contamination Committee*

3.3 THE ATTAWAPISKAT FIRST NATION

On the western shores of James Bay, residents of a First Nation reserve have been supplied with contaminated drinking water from a communal system for more than a decade. In addition to problems such as discolouration, E. coli, and total coliform, the community water plant is incapable of supplying the demands of the growing population. Poor planning and insufficient funding for infrastructure has resulted in chronic problems with water quality. According to Chief Gull of the Attawapiskat First Nation, First Nation reserves in general are among the most disadvantaged users of drinking water systems in the country.

3.3.1 The Attawapiskat Cree

The Attawapiskat First Nation live at the mouth of the Attawapiskat River on the western shore of James Bay. The Cree community has a population of about 1,700 on the reserve and approximately 1,500 living off the reserve.

The Attawapiskat Cree are hunters and gatherers that settled on the coast of James Bay in their traditional territory in the first part of the twentieth century. In 1904, the Canadian and Ontario governments approached the Attawapiskat First Nation with a treaty proposal, in which non-native governments and people could have shared access to the lands owned by the Attawapiskat Cree in exchange for Cree access to benefits offered by the non-natives, including non-native education and medicare. Settlement in one location (part-time, at least) of the Attawapiskat Cree was a condition of the agreement, for it was the only way in which such benefits could be delivered.

3.3.2 The Water Problem

Since the late 1980s, the community water on the Attawapiskat reserve has been discoloured, with a pungent odour and unpleasant taste. Stagnant source water, an overtaxed treatment system, holes in distribution pipes, and occasionally insufficient treatment supplies (e.g. chlorine) have resulted in significant water problems, including the presence of lead and E. coli. Most community members, therefore, only use water supplied by the treatment plant for washing and toilets. Drinking water is mainly obtained from four Culligan water filtration units located throughout the reserve, from which water is lugged back to households in large barrels. Individuals without powered vehicles depend on neighbours, or carry containers with wheelbarrows or by hand. Some individuals obtain water directly from the river, and many people melt snow and ice in large containers in the winter. Those that use the tap water for consumption must boil it first.

Water is sometimes not available at night, when it must be conserved to ensure demand throughout the day can be met. Moreover, the insufficient capacity of the treatment system has resulted in the operators running the plant despite clogged filters, thus delivering water that is treated inadequately.

A new treatment facility is expected to be operational in May 2001. It's greater pump capacity will attempt to satisfy the growing demand from the rapidly increasing population on the reserve. However, the same source (i.e. a swampy lake) will be used, and concerns include the possibility the lake will meet demands for only about five or six years before running dry.

3.3.3 The Story

From the 1960s through the 1980s, when most Canadians had drinking water piped into their homes, the Attawapiskat Cree obtained their water for drinking, bathing, and cooking by hand directly from the Attawapiskat River. In the winter, they would transport large bags stuffed with snow and pieces of ice from the river by snowmobile back to their homes to melt for water.

In 1976, the Department of Indian Affairs and Northern Development (DIAND) installed the first water treatment plant on the Attawapiskat reserve, drawing water from a small, swampy lake nearby. However, the treated water was provided only to the local school, hospital, and housing for teachers, not to homes. In 1986, the water plant burned down.

In 1987, water mains were installed and a new treatment plant was built providing access to water for community members at nine watering points throughout the reserve. However, problems with the distribution pipes in the late 1980s resulted in contamination of the water. The residents, therefore, began obtaining drinking water directly from the river or directly from the main treatment plant itself.

In 1996, DIAND completed a $16.2 million water and sewer sanitation system that hooked up more than 230 households to potable water and sewage disposal. Thus, the Attawapiskat Cree first received home water decades after most Canadians. However, problems persisted due to inadequate planning, such as: (1) the use of the same small, shallow, and stagnant lake for source water that was used for the initial system; and (2) the use of very low per capita consumption estimates to determine the capacity of the system. The combination of these two factors, in conjunction with holes in the distribution pipes and the rapidly growing population of the reserve, has resulted in persistent water quality and quantity problems. As a result, Culligan units have been installed by DIAND at select locations throughout the reserve. However, residents still must transport water back to their homes.

Microbial contamination was identified in the summer of 2000, in which E. coli and total coliform was detected in tap water on the reserve. An inadequate stock of water treatment supplies was the likely cause; i.e., the plant ran out of chlorine. A boil water advisory was issued for the reserve.

A new water plant will be built by May 2001, however, again using the same inadequate source for water. A study commissioned by DIAND estimates that with the increased pump capacity of the plant, this source can likely supply community demand for five to six years. About $8 million will be spent on this system and an expanded sewer system. However, these funds consist of monies originally earmarked for badly needed housing projects to satisfy the existing housing shortage and rapidly growing population on the reserve.

3.3.4 Major Obstacles and Lessons Learned

1. **Inadequate Government Involvement**. The distinct constitutional status of First Nations has resulted in inadequate government involvement in native affairs, including community infrastructure needs. Perhaps one reason is that distinct status has made First Nation communities more complicated to deal with, or perhaps it is simply a lack of importance placed on native affairs in general.

2. **Insufficient Federal Funding for Infrastructure**. The federal government has made frequent attempts to minimize spending in First Nation communities, or to postpone funding the types of major infrastructure projects which most Canadians take for granted. Until recently, DIAND had maintained to the Attawapiskat reserve that it did not have the funds for capital projects, despite repeated studies recommending a new water source and a new treatment system for the reserve. Although the government is now spending several million dollars on a new water plant and sewer system expansion, the funds were diverted from other badly needed infrastructure projects.

3. **Coordinating Three-Way Government**. As First Nation governments increasingly expand their jurisdiction over their own territories, including vital areas such as physical infrastructure, numerous questions of coordination and efficiency arise in the context of three interacting levels of government (federal, First Nation, provincial). Notably, government must acknowledge that water infrastructure is one of the social services that will be increasingly administered by First Nation governments, and that this will require coordination with the level of government (namely the provincial government) which provides or oversees the provision of that service to other Ontarians.

3.3.5 A Local Voice

"For my people, water used to be the easiest of the necessities of life. I sometimes wonder if we've gone backwards. However, if the lawyers and the bureaucrats can get back to focusing on some basics, I think we can make progress. The starting point has to be that my people should have clean water, no questions asked. I think my government and your governments can make it work."

- Chief Ignace Gull, *Attawapiskat First Nation*

3.4 RURAL ONTARIO STEWARDSHIP ASSOCIATION

For more than two years, the Rural Ontario Stewardship Association (ROSA) was involved in legal manoeuvrings to prevent the construction of a large hog facility in the Township of Biddulph, near London. The recent surge in the number of such intensive livestock operations throughout Ontario has caused ROSA to voice concern over the environmental impacts of these farming practices. In the Biddulph case, the group was particularly concerned over the possibility of bacteriological contamination and high levels of nutrients impacting local water supplies. This case was settled out of court in September of 2000.

3.4.1 The Group

The Rural Ontario Stewardship Association was formed in 1998 due to the rapidly increasing number of intensive livestock operations (ILOs) in Ontario. The group has a membership of approximately 40 people throughout southern Ontario. Its 10 active volunteers include a veterinarian, a retired well driller, farmers, and others. ROSA received a great deal of community support throughout the Biddulph case.

With assistance from the Canadian Environmental Defence Fund (CEDF), ROSA spent countless hours raising funds in their community through direct appeals, and also received large personal donations from group members. After raising more than $60,000 for its case in Biddulph, the endeavour has left ROSA approximately $5,000 in debt.

3.4.2 The Threat to Drinking Water

Two fundamental issues formed the basis of ROSA's concerns over water quality following the proposed expansion of the hog operation in Biddulph. First, nutrients from manure spread on farm land can degrade ground water quality and local waterways. Nitrogen and phosphorus are of particular concern, as both accelerate eutrophication, which depletes levels of dissolved oxygen. Nitrogen can also pose serious threats to human health, particularly babies under the age of three months. A condition known as methemoglobinemia, or "blue baby" disease, can occur from infants ingesting nitrate-contaminated drinking-water.

Second, ROSA was concerned that local water supplies would be threatened by bacteriological contamination. Since the recharge areas and shallow aquifers around the proposed site were unknown and macro-pores in the soil would permit quick drainage of the manure, its impact on ground water was unclear. A recent study by the Upper Thames River Conservation Authority substantiated the group's concerns, determining that liquid manure can hit the tile[2] as quickly as 20 minutes after application to the land, depending on the rate of application, condition of the soil, and weather events.

[2] Long perforated tubes buried about two feet underground to take away excess water.

3.4.3 The Story

In the Spring of 1998, Premium Pork submitted a proposal to the Township of Biddulph for the construction of a second intensive livestock facility consisting of 2,500 sows. At that time, no local by-law existed to regulate facilities of this magnitude and to ensure environmental safety. The Township thus issued an interim by-law that placed a moratorium on the construction of new ILOs until an appropriate by-law could be structured and implemented. A committee that reflected the community's interests was established by the Township shortly thereafter to assist in drafting the by-law.

In July 1998, by-law 38-1998, which regulated the storage and use of nutrients in the township, was unanimously approved by council. Premium Pork withdrew its proposal shortly thereafter.

In November 1998, local farmer Fred Knip applied to the Normal Farm Practices Protection Board (NFPPB) to be exempted from three sections of the new by-law for the proposed expansion of his hog operation from 1,000 hogs to 3,000 hogs. The three sections included:

- s.4.4.9 No applications will be accepted for construction of facilities larger than 500 livestock units for any one building site;
- s.6.8.1 At least 1 acre of tillable land must be provided for every 1.5 animal units in the facility; and
- s.6.8.3 The proponent must own at least 66% of the tillable land base.

At the hearing, the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) testified on behalf of Fred Knip. The Ministry's position, which was heavily weighted by the Board, was that the requirements of the new Biddulph by-law were unnecessary if both Nutrient Management Plans and Minimum Distance Separation formulas had been used in the planning of the ILO. The proponent used both in his plans for the proposed operation.

The Township publicly opposed Fred Knip's proposal, as it contravened the new by-law. However, they chose not to actively defend their position at the hearing, sending a clerk to represent their concerns rather than legal counsel. As a result, ROSA was the only party to legally oppose the proponent's hog farm expansion.

Nonetheless, the NFPPB found in favour of Knip on s.4.4.9 and s.6.8.1, claiming that they restrict normal farm practices in livestock operations. Moreover, they deferred the land ownership issue, as Fred Knip possessed the required amount of land, though in more than one name (e.g. Fred Knip Farms and Eileen Knip).

ROSA appealed the decision to the Ontario Divisional Court in January 1999 on the grounds that the proponent failed to present a demonstrable plan. Without one, they contended, it is not possible to determine if the farm is conducting "normal" farm practices. However, limited financial resources restricted ROSA from retaining any experts.

About a year later, ROSA had filed all the necessary documents for the appeal, and a hearing was scheduled for the fall of 2000. By August 2000, however, Fred Knip conceded to the appeal.

ROSA is now challenging a proposal for another intensive livestock facility in Middlesex County. The group has retained legal counsel, a professional engineer, and a hydrologist for this case, which is currently before the OMB. Again, ROSA is not receiving any support from local or provincial government officials.

3.4.4 Major Obstacles and Lessons Learned

1. **Inadequate Response from Local Government**. Although the Township passed a by-law in 1998 regulating large farming operations, local council did not actively defend the by-law at the NFPPB hearing. Instead, ROSA was left to mount the legal opposition the proposed hog farm expansion.

2. **No Support from Government Agencies**. OMAFRA testified on behalf of the proponent at the hearing, stating that the new requirements of the Biddulph by-law were unnecessary if an ILO plan included both Nutrient Management Plans and Minimum Distance Separation formulas.

3. **Limited Financial Resources**. ROSA has spent countless hours over the past three years raising more than $60,000 for this case. However, the group was unable to retain technical expertise to further their case as legal expenses consumed their financial resources. To date ROSA has a $5,000 debt.

4. **Inadequate Environmental Studies Conducted**. Although little was known about the recharge areas and locations of shallow aquifers, the NFPPB still approved the ILO proposal.

5. **Belief in ILOs as Best Farming Practice**. Government and industry alike seem to believe that ILOs are the only way to produce pork. But other ways of farming hogs are more environmentally sensitive and responsible.

3.4.5 A Local Voice

"We see the same story everywhere that the ILO phenomena is taking hold. Government and industry claim that they have a handle on it, that it's a good thing. But we are already seeing water quality problems. We seem to be heading down the same road that other jurisdictions have already been."

- Don Mills, *Rural Ontario Stewardship Association*

3.5 FOUR CORNERS ENVIRONMENTAL GROUP

Just outside of Walkerton, a local citizens group spent the last eight years opposing a proposed quarry that would adversely affect the local environment. Of particular concern was the quantitative impact of the quarry on local water wells, as digging below the water line would require the removal of significant amounts of water. With no support from local and provincial government officials, the group challenged the quarry license at the Ontario Municipal Board (OMB). Its recent ruling denied the license to build the quarry.

3.5.1 The Group

Four Corners Environmental Group (Four Corners) was formed in response to a proposal in 1993 for a limestone quarry in Greenock Township. Approximately 20 volunteers are actively involved in the group, including a retired Ontario lands surveyor and a landscape architect. Four Corners has a membership base of more than 160 community members.

The group has spent approximately $93,000 on a lawyer, a fisheries expert, and a hydrogeologist, and is presently $25,000 in debt. Funding has been acquired mostly from a supportive local community. Additional support has been provided by local fisheries groups, field naturalist groups, and environmental organizations.

3.5.2 The Threat to Drinking Water

The proposal for the limestone quarry presented both quantitative and qualitative water issues, although the quantitative concerns have been paramount to date. With local residents obtaining water from private wells and the size of the source unknown, Four Corners expressed concern that local wells within a 1.7 km radius would run dry if the proponent was allowed to mine into the water table. As the quarry would drill below the water line, water would have to be pumped out in order to mine. The extracted water would be diverted to on-site holding ponds, where the water would warm before entering the neighbouring coldwater stream, adversely affecting the Brook Trout spawning habitat.

Water quality concerns existed from the outset, mostly with regards to the impact of diesel fuel spillage from on-site machinery and other contaminants from dynamite usage. After the tragedy in nearby Walkerton, additional concerns surfaced about cow manure from surrounding agricultural lands washing into the water table through the 107 hectare mining site.

3.5.3 The Story

In 1992, Formosa Environmental Aggregates Inc. (Formosa) applied for a license to extract up to 850,000 tonnes per year of limestone, along with a companion application for rezoning of the property from “Agricultural” to “Industrial (M2).” However, the MOE, the Saugeen Valley

Conservation Authority (SVCA), and OMAFRA expressed concern at the time and required the proponent to provide additional information. Local council provided no position on the development, deferring the matter to the provincial ministries.

Over the next five years, the proponent conducted numerous studies to satisfy the requirements of the aforementioned government agencies. Nonetheless, Four Corners continued to express concern about the adverse impacts of the quarry on the local water resource and the overall quality of life of the community. Moreover, the proponent would not provide guarantees to ensure the local water supply for the neighbours, and did not include noise and dust controls on the quarry site plans.

In Spring of 1998, the proponent's application for zoning and official plan amendments were approved by Bruce County Council, as the proponent had addressed all questions from the MOE, SVCA, and OMAFRA. However, three conditions were attached to the amendments, one of which was that the proponent must immediately supply water for wells within 1 km of the quarry if they run dry.

Four Corners thereafter retained a lawyer, a fisheries ecologist, and a hydrogeologist to review the quarry proposal. Their findings were quite different from the conclusions of the proponent's studies. For one, the likely impact on water wells of the quarry was found to be within a 1.7 km radius, whereas the proponent claimed that only two wells would be affected. Moreover, the studies conducted by experts for Four Corners exposed the possible impacts of the quarry proposal on local fisheries (Brook Trout). As a result, the Department of Fisheries and Oceans (DFO) became involved.

As meetings between Four Corners and Formosa proved unsuccessful in reaching an acceptable compromise, the local citizens group challenged the proponent's license to extract limestone before the OMB. Central issues of concern at the hearing included domestic and farm wells, local fisheries, and wetlands.

In October 2000, the OMB's final decision recognized that the quarry may have adverse impacts on local fisheries, and thus denied the license. The ruling states that the fishery issue would first have to be resolved with DFO. If those concerns could be addressed, the developer would be allowed to mine up to 2 metres above the water table. Thus, water quality and quantity issues would no longer be pressing.

Furthermore, in addition to the DFO requirements, the OMB ruled that the proponent:

- meet all noise and dust control measures requested by Four Corners;
- guarantee the water supply for neighbours within a 1.7 km radius; and
- engage in an agreement with MNR to ensure funding for future liabilities, should they arise and should the developer abandon the site.

3.5.4 Major Obstacles and Lessons Learned

1. **Inadequate Protection of Drinking Water Sources**. The Four Corners challenge of the quarry proposal was successful primarily because of the fisheries issue. That is, local water supplies were safeguarded as a result of concerns for fish, not for residents' water quantity or quality.

2. **No Consistency in Response Among Government Agencies**. MNR initially overlooked the fisheries and water supply issues. However, after Four Corners conducted its studies, DFO came in "fast and hard." According to the local group, DFO seemed prepared and progressive.

3. **No Support From Local and Provincial Politicians**. Despite petitions and letters to Council, local officials deferred the matter to the regulating agencies. The MPP for the area demonstrated interest, but ultimately left it up to MNR.

4. **Need for Legal and Expert Assistance**. The absence of legal or expert assistance when presenting its argument to the Agriculture, Tourism, and Planning Committee harmed the group's presentation of its case. Bruce County Council's decision to grant the license and approve the zoning amendment was based on this Committee's recommendation. Four Corners subsequently received assistance from the Canadian Environmental Defence Fund.

5. **Financial Costs**. Four Corners has spent $93,000 on legal and expert fees. Most of these funds have been provided by local residents, as well as a number of field naturalist associations, sportsman associations and clubs. Despite countless hours fundraising, the group is still $25,000 in debt.

3.5.5 A Local Voice

"We couldn't believe that drinking water sources had no legal protection. We had to use the *Fisheries Act* as a big stick to get government interested in the matter."

- Brian Folmer, *Four Corners Environmental Group*

4. CONCLUSION

This study documents the experiences of a handful of Ontario groups attempting to secure safe drinking water for their communities. Their efforts expose extensive drinking water concerns facing a number of communities in Ontario, ranging from contamination problems, to overtaxed treatment systems, to source water threats. Each of these stories highlight the need to address important issues - such as inadequate government responses to potential threats and existing problems, legal protection for water sources, and greater transparency - in order to establish and enforce high drinking water quality standards.

Although this study provides only snapshots of local responses to drinking water concerns in the province, it nonetheless demonstrates the diversity of obstacles that inhibit citizen groups and First Nations from taking the necessary steps to ensure clean drinking water.

Some of the major obstacles facing these groups include:

- inadequate responses from politicians and government officials to concerns expressed by citizens;
- insufficient legal protection for drinking water sources;
- limited public participation in decision making.
- significant financial costs of legal challenges;
- limited access to information;
- poor communication between government agencies;
- inadequate communication of health threats to the local community; and
- problems other than microbiological contamination treated as secondary threats.

The stories of these four citizen groups and one First Nation, therefore, reveal major inadequacies with Ontario's approach to safeguarding clean drinking. Although Ontario's drinking water generally meets provincial standards, in situations when it does not government should be reaching out to assist concerned citizens.

Instead, government officials often impose barriers that limit prompt and effective action, requiring citizens to spend thousands of dollars and countless hours to secure clean drinking water for their communities. Unfortunately, it has taken a tragedy such as Walkerton to reveal the full extent of drinking water issues facing the citizens of Ontario.

REFERENCES

U.S. Environmental Protection Agency. “Current Drinking Water Standards.” [online] [Cited February 8, 2001.] < http://www.epa.gov/safewater/mcl.html>