

# Glacier Water Treatment Systems Inc.

## Water Timeline:

### THE 1950s:

#### 1950

- Great Lakes basin population reaches approximately 22.7 million, an increase of 30 percent in 20 years.

#### 1950

- Canadians grow concerned about water shortages:

Canadians watch with bewilderment as New Yorkers face strict rations due to a dwindling water supply. Men drive out of the city to get shaves and luxury liners serve free wine instead of water with meals. By the summer of 1950, the problems catch up with some Canadians. In North York, Ontario, water pressures drop so low that residents have to carry buckets of water from basements to second-floor bathrooms to flush toilets. The Agricultural Institute of Canada, an organization of 32,000 scientific workers, releases a statement on the water problem to provincial ministers of agriculture across Canada:

"Conservation of soil and water represents the greatest natural-resources problem facing Canada at present. Lack of an adequate integrated government policy covering land and water resources is a growing menace to farmers and our whole economy. It is a matter of national concern."

- A special committee on the conservation of water in Ontario releases a report warning of dire consequences if lowering water supplies are not curbed:

During the summer of 1950, Canadians across the country experience something that had once been considered absurd for a country so rich with water: water rationing. In 1949, the Ontario government appoints a special committee to study the conservation

needs of the province. The committee reports back "The evidence has been most emphatic on the lowering of groundwater supplies. Farmers complain that wells are going dry, many cities are finding it difficult to secure water for an increasing population, or even for their present numbers ... If rain and snow water continue to race away at top speed into rivers and lakes, rather than percolate into the ground, the day is coming when Ontario's inland cities will be forced to build vast and costly works, piping water from the Great Lakes ... Inland towns cannot continue to grow without more water."

- To the farmer, the water supply is a problem as pressing as taxes:

In Regina, residents are still reeling after two infants die from water contamination in 1949. Another 12 are sent to hospital with cyanosis, a condition that reduces the blood's oxygen carrying capacity. Well waters had dropped so low that the concentration of nitrate poison in some wells rose to 1,300 parts per million. (The danger point: 20 parts per million.) Researchers find that neglected well tops permitted the contamination to get into the wells, but low water caused the dangerous concentration.

#### 1955

- Breeding of bald eagles and double-crested cormorants in the Great Lakes region declines and populations fall to extremely low levels:

Bald eagles and double-crested cormorants eat fish, small mammals and frogs that, in turn, have eaten plants, insects and fish at lower levels in the food chain. Even the smallest concentration of pollutants in water has a magnified impact when it infiltrates the food chain from the small mammals and frogs up to the larger animals. Researchers in the mid-1950s first began to notice a dip in the population numbers

of bald eagles along the shores of Lake Erie and Lake Ontario. By the early 1970s, the bald eagle and double-crested cormorants face near extinction there.

## **THE 1960s:**

### **1962**

- Rachel Carson, in her book, *Silent Spring*, warns that chemical insecticides are toxic to animals and humans as well as to insects.

### **1964**

- Elliot Lake water: Is it safe or not?:

The Ontario Water Resources Commission confirms radioactive contamination in the Elliot Lake and Algoma area, emanating from the radioactive waste of the surrounding uranium mills. The International Union of Mine, Mill and Smelter Workers agree the situation is grave. It recommends the federal government take emergency action to give medical examinations and uncontaminated water to all Elliot Lake residents, and to investigate all water supplies near areas where mining or processing of radioactive materials take place.

### **1965**

- Mink farmers, who regularly feed their animals fish from the Great Lakes, are alarmed when the females begin bearing dead kits:

In the mid-1960s, mink farmers in Michigan and Ontario Canada are forced to rethink the diet of their animals. Up until now, their ranches have relied on fish pulled from the Great Lakes, but researchers soon draw a link between pollutants in the lake, to the fish, and then to the mink themselves. The female mink are giving birth to stillborn young. Researchers point the blame on

the high level of toxins in the mink's primary food source: fish from the Great Lakes.

- University of Toronto professor George Langford says the Great Lakes are being killed by pollution, and warns that within 10 years the point of no return will have been reached.

### **1967**

- Breeding of the bald eagle in the Great Lakes region declines and the population falls to extremely low levels.

### **1969:**

- Cuyahoga River, near Cleveland, Ohio catches fire.

- Lake Erie fish begin dying en masse, washing up on bathing beaches. They have to be removed with bulldozers.

## **THE 1970s:**

### **1970**

- Great Lakes basin population reaches 30.8 million, an increase of 36 percent over 20 years. - International Joint Commission report on pollution of lower Great Lakes leads to negotiations for a Great Lakes Water Quality Agreement. - Government bans fishing in Lake Erie after a report shows high mercury content in pickerel from the lake.

- Laundry detergent phosphates targeted:

Energy and Resources Minister J.J. Greene announces a federal ban on phosphates in laundry detergent. Phosphate water pollution becomes a criminal offense. Greene also proposes an amendment to the Canada Water Act, prohibiting phosphates and substitutes, which pollute by stimulating the growth of algae that depletes oxygen, killing other marine forms.

**1971**

- Deformities such as crossed bills, clubfeet and missing eyes observed in common tern chicks in Hamilton Harbor.

**1971**

- Researchers working for the Quebec government find groundwater contamination in the town of Ville Mercier:

For years, neighboring factories have been disposing of industrial wastes into lagoons in an old gravel pit. The zone of contamination, which contains chloroform, dichloroethylene, trichloroethylene, chlorobenzene, PCBs and phenols, is 100 feet thick at some points. The contamination eventually renders the water supplies of thousands of residents in the region unusable. Water has to be pumped from a well 10 kilometers away to replace the area's supply. By 1986, the cost of the alternative water supply and ongoing cleanup reaches \$10 million.

**1971**

- U.S. and Canada sit down to talk water:

Discussions take place between the governments of Canada and the United States on the quality of water in the Great Lakes. Both governments are concerned about the possibility of water from the Great Lakes contributing harm to health and property. The Boundary Waters' Treaty, signed on January 11, 1909, recognizes the rights of both the U.S. and Canada to use the water, and, more specifically, their obligation not to pollute the boundary waters. Now, both sides agree that a new policy must be adopted to prevent the deterioration of the Great Lakes basin ecosystem.

**1971**

- Several experts are reported to state that Lake Erie is "dead":

While the diagnosis may sound alarmist, it isn't far off the mark. Just a year before, the Cuyahoga River, which flows into Lake Erie near Cleveland, had caught fire because of oil on surface. That said, in the early 1970s Lake

Erie is in fact teeming with life -just the wrong type of life, in the form of algae, due to excessive phosphorus. The phosphorus enters the lake from sewage and, even more importantly, from runoff containing fertilizers and wastewater, including detergents "boosted" with the addition of phosphate. Even small amounts of excess phosphorus accelerate the growth of plants in fresh water. Because Lake Erie's waters are bombarded with phosphorus, algae bloom; as they die and decompose, the waters darken and oxygen levels fall. In time, the populations of some fish species seriously decline.

**1971**

- Researchers determine that pollutants in the Great Lakes are making people sick:

Investigators discover a link between chemical pollutants found in Lake Erie, Lake Ontario and the upper portion of the St. Lawrence River, and illnesses suffered by citizens living in communities bordering the troubled waters. The conclusion is shared by the International Joint Commission (<http://www.ijc.org/>), an organization founded by the United States and Canada in 1909, to seek solutions to problems in the lakes and rivers along their common border.

**1972**

- Canada and United States sign the Great Lakes Water Quality Agreement:

Prime Minister Pierre Trudeau, External Affairs Minister Mitchell Sharp, U.S. President Richard Nixon, and U.S. Secretary of State William Rogers sign the Great Lakes Water Quality Agreement. The agreement outlines anti-pollution objectives for Canada and the U.S. One major point is the 50 per cent reduction in phosphorus dumping, expected to cost the U.S. some \$2 billion and Canada \$250 million. An icy downpour keeps the crowd to fewer than 1,000 people, most of who protested Nixon's visit. The RCMP kept protesters away from Nixon as he left Parliament.

**1972**

- United States passes the Clean Water Act.  
- Deformities such as crossed bills observed in double-crested cormorants, Caspian terns, ring-billed gulls and herring gulls.

## 1972

- Arctic Waters Pollution Prevention Act becomes law:

The Act is a response to recent challenges to Canada's sovereignty over the Arctic. The specter of American tankers plying northern waters with impunity and increased chances of disastrous spills lead Ottawa to act, asserting its right to control these waters to prevent pollution.

## 1975

- Research indicates that chlorine can in fact allow contamination of water in some cases

Researchers in Holland, and later in Canada and the U.S., find that chlorine reacts with some substances -including human excrement- to produce a family of chemical compounds called "organohalides," which have been shown to cause cancer (primarily of the liver) in laboratory animals. A survey of 12 Ontario municipalities found organics in the drinking water of 11, recording the highest levels of contamination in North America.

-An arsenic scare worries citizens of Yellowknife, NWT

Arsenic compound is found in the gold-bearing ore of the Yellowknife area. Gold mining in the region pushes the arsenic into the air through smokestacks and then into the water via mine tailing ponds.

## 1976

- A study examines whether a dioxin, considered culpable for an "epidemic" of herring gull stillbirths around Ontario's Prince Edward County region, could also have seeped into the drinking water and have caused human birth defects. - New Brunswick man escapes arsenic poisoning of his well:  
John Hartlen, 36, is hospitalized with a mysterious illness that baffles his doctors - they say it looks like he may be the victim of arsenic poisoning. It is later found that Hartien, his aunt, mother and two children were poisoned over a long period of time by the accumulated effect of drinking water from a well containing minute quantities of arsenic leached out of the tailings dump of an old gold mine. 31 of the 180 wells in the area were found to have arsenic concentrations above the .05 parts per million

considered safe. Water in the Hartlen home contained 5 parts of arsenic per million. Oldham, a community about 20 miles from Waverley, is also affected. Fourteen of the town's 67 wells are above the limit. Edwin Tupper, administrator of the health engineering services branch of the Nova Scotia Department of Health, believes that arsenic may turn out to be as serious a hazard as mercury poisoning. "it could become the next national and international pollution phenomenon," he says.

-PCB spill threatens the Regina's drinking water aquifer:

-Regina suffers two major blows to its water supply. Residents worry about the high chlorine levels required to kill off highly toxic blue-green algae that is growing in Buffalo Pound Lake, from which some of the city's water supply is drawn. Another danger focuses on the aquifer that supplies half of the city's water. The aquifer is in danger of contamination after a PCB spill and from the threat of chemical runoff from a landfill site built on top of it.

- Arsenic found in Yellowknife drinking water.

Residents of Yellowknife, NWT, are instructed "not to panic" when arsenic is found to have contaminated the city's drinking water. A later report asserts that the public is suffering "no excessive or dangerously high levels of arsenic." The report shows municipal water supplies are within federal standards. The author of the report, Dave Gemmill, however, says more research is required to study the environmental hazards of arsenic contamination.

-PCBs threaten Regina water supply

A broken underground pipe at the Federal Pioneer plant in Regina, Saskatchewan, leaks more than 3,000 gallons of PCBs into the surrounding soil. The spill of PCBs percolates towards the groundwater table from which the city of Regina draws its drinking water.

## 1977

- Breeding success of bald eagles and double-crested cormorants in the Great Lakes region begins to improve.

## 1978

- Great Lakes Water Quality Agreement is expanded:

The amendments to the agreement introduce an ecosystem approach, which considers the interaction of air, land, water and all living organisms including humans, in efforts to clean up Great Lakes. The new Agreement also calls on the two countries to "virtually eliminate" discharges of persistent toxic substances to the Great Lakes. Research shows that substances such as PCBs and dioxin take much longer to break down than other chemicals do; they are responsible for adverse health effects on humans and wildlife.

## 1979

- Petroleum tanks contaminate wells in New Brunswick:

Some underground storage tanks for petroleum products and hazardous wastes are deteriorate and leak their contents into aquifers, leaving them unfit for human use. In 1979, 19 spills of gasoline leach and contaminate 35 wells in New Brunswick (though the full extent of the contamination will not be known until 1988). Once contaminated, groundwater is much more difficult to clean up than surface water, and the recovery time is much longer.

- Officials downplay industrial contamination of Port Hope drinking water:

An industrial solvent, methylene chloride, is discharged into the Ganaraska River killing all crayfish and rainbow trout in a half-mile stretch of the river. Considerably diluted, the same chemical surfaces downstream from the spill in the drinking water of Port Hope, Ontario. Ministry of the Environment officials state that the levels are "not dangerous to human health," but critics argue that no one can guarantee there will be no subtle effects on health decades down the line,

## THE 1980's:

### 1980

- Physical and behavior differences found in Michigan infants whose mothers ate Great Lakes fish.

- For months, townsfolk in L'Epiphanie, Quebec, have to put up with tap water that smells of hog manure:

In Quebec, the people of L'Epiphanie, 35 km northeast of Montreal on L'Assomption River - one of six sorely polluted rivers in Quebec - are finally given an alternate tap water system after months of putting up with tap water that smells of hog manure. The federal government orders them to stop using the water and find one hog producer in the area \$10 000 for dumping agricultural pollutants in the river. Quebec Environment Minister Marcel Leger calls the disposal of liquid hog manure "a grave problem which appears to have no solutions."

- BC communities of Ashcroft and Savona are stunned by the news that their drinking water has been contaminated with phosphorus for 10 years:

The two towns sit downstream from Kamloops on the Thompson River. They learn that since 1970, the Weyerhaeuser Canada Ltd. Pulp mill has been discharging a brown liquid laced with phosphorus into the river. The pollutant shows up in the drinking water, along with other industrial chemicals. "I guess those who can afford it drink Perrier," says Rose Delap, a resident and secretary of the Save the Thompson River Committee.

-Chemicals baffle Great Lakes researchers:

The International Joint Commission on the Assessment of Human Health Effects of Great Lakes Water Quality makes meaningful toxicity evaluation of only 89 of the 381 compounds that contaminate the Great Lakes system. These are broken down into three categories: 18 chemicals known to be acutely toxic, 33 chemicals known to cause "chronic adverse effects" in humans, and 38 chemicals known to cause chronic adverse effects in laboratory animals. There is insufficient data to draw conclusions about the remaining 292 chemicals.

-Study shows water treatment can actually add dangerous contaminants to drinking water:

-Studies by Ontario's Ministry of the Environment indicate that organic chemicals have infiltrated drinking water in the province. A subsequent report stuns officials when it shows one of the chemicals, chloroform, is brewed in water treatment plants themselves, Chlorine, by far the most widely popular disinfectant in North America, reacts with organic substances in raw water to produce chloroform. Not only is chloroform considered a serious threat, the family of halomethanes, including bromoform, bromodichloromethane and chlorodibromomethane, are found to form with chloroform during chlorination.

**1981**

- Researchers find 17 chemicals in the drinking water pulled from Ontario's St. Clair River:

-Provincial officials who test Ontario's St. Clair River, which runs through what is mockingly called "Chemical Valley", find 17 chemicals in the drinking water - as far as 165km away at Windsor. The people in the vicinity of Canada's largest concentration of petrochemical plants are told they would be "prudent" to avoid drinking the water.

**1981**

-Harrietsfield, N.S. residents are given a provincial court order to stop drinking the water when 40 of 95 wells are discovered to be contaminated with uranium.

**1982**

- Pollution Probe, the Toronto-based environmental group, shocks Torontonians when it says that local tap water can cause cancer.

**1983**

- Phosphorus load reduction supplement added to the Great Lakes Water Quality Agreement, setting targets for Lakes Erie and Ontario.

**1983**

- More than 3,000 people fall ill in Drumheller from a gastroenteritis epidemic. The sickness is blamed on water contamination:

-In February, some 3,000 people fall ill in Drumheller, Alberta, with the same symptoms: nausea and diarrhea. All of them have one thing in common - the water they drink comes from the same source, the Red Deer River. After studying the incident, Alberta environment officials determine that the town is the victim of history's worst outbreak of a suspected Norwalk virus – a gastroenteritis epidemic touched off when city workers dump 18,000 L of sewage into the Red Deer River, upstream of the city's primary water intake.

**1983**

-Pollution Probe, a Toronto-based environmental group, reports that 57 contaminants have been found in Toronto tap water.

**1984**

- **90** spills of gasoline leachate contaminate 100 wells in New Brunswick (another rash of contamination occurred

- U.S.-Canadian environmental committee confirms that the Niagara River discharges 3,000 lbs. of toxic chemicals into Lake Ontario each day:

A joint U.S.-Canadian environmental group says the lives of 4.5 million Canadians who take their drinking water from Lake Ontario are in danger. The group, the Niagara River Toxics Committee, publishes a report that demonstrates that the 33-mile long river discharges a staggering 3,000 lb. of toxic chemicals into the lake each day.

**1985**

- Study suggests gas reservoirs are leaking into Canadian groundwater:

-A study by Pollution Probe, the Toronto-based environmental group, concludes that 20-25 percent of all retail outlet gas tanks are likely to be leaking gasoline. The study goes on to say that more than half a million gallons of petroleum seeps into Canadian groundwater each day. That's the equivalent of the Exxon Valdez spill entering our groundwater about every 18 days, or 20 such spills each year.

## 1986

- Great Lakes Governors sign the Great Lakes Toxic Substances Control Agreement. Ontario and Quebec later join in the Agreement.

- Chemicals dumped into the Welland Canal:

-The Ontario NDP publishes a report on water pollution in the Welland Canal. The study shows that sewage treatment plants and industries dump 394,000 cubic meters of chemical waste into the canal every day. Much of the effluent contains known or suspected carcinogens. The report is highly critical of the governments half-hearted efforts to clean up the water, which like that of the highly polluted Niagara River, eventually finds its way into Lake Ontario. Furthermore, had the study been conducted according to government guidelines, up to 90 per cent of the dangerous chemicals would have gone unnoticed.

## 1987

-Protocol expands Great Lakes Water Quality Agreement to include airborne pollutants.

-Federal Water Policy passed:

-The federal government passes the Federal Water Policy, which includes commitments to groundwater assessment and protection. But those commitments receive no special funding. In fact, federal spending on groundwater issues declines.

- Canada and the United States agree to develop Remedial Action Plans to bring communities into clean-up efforts in Great Lakes Areas of Concern:

-Canada and the U.S. sign a tougher version of the 1978 Great Lakes Water Quality Agreement. Instead of just identifying obvious polluters, "we are taking ... an ecosystem approach," says Canada's Environment Minister Tom McMillan. McMillan promises that all sources of pollution will now be dealt with. These include leaking dumps, fertilizer runoff from fields and toxic chemical seepage.

## 1988

-Canada adopts a new Canadian Environmental Protection Act.

- Federal and provincial government calls for upgrading leak detection and replacement of old petroleum tanks across Canada.

## 1989

- Gallup poll shows that 95 per cent of those polled are concerned about the quality of drinking water in Canada.

- New Brunswick, the province afflicted with some of the country's worst contamination, passes the Clean Water Act, paving the way for a protection strategy.

- Health and Welfare Canada sets guidelines for Canadian Drinking Water Quality:

-The guidelines pertain to four categories: microbiological (bacteria, viruses, and protozoans), radiological (radioactive isotopes), physical (taste, odor, temperature, and colour) and chemical. The guidelines are set at levels at which the risk is thought to be sufficiently low or negligible (i.e., one person in a million developing cancer.)

- Elmira, Ontario, struck by carcinogenic contamination:

-A suspected carcinogen, N-Nitrosodimethylamine (NDMA) is discovered in the drinking water of Elmira, Ontario (population 7,200). NDMA is later found in the groundwater that feeds several of the town's wells, in the Canagigue Creek, downstream along the Grand River system, and even 40 miles away in Brantford and Six Nations. Three of Elmira's six wells -serving half of the community- and a handful of private wells are declared unsafe. Water has to be trucked into the town by the regional government, school fountains are sealed up, the town pool is drained, a watering ban imposed, and residents are advised to shower and bathe in Waterloo, 15 miles to the south. Ontario's Ministry of the Environment eventually figures Uniroyal Chemical Ltd., a local company that makes chemical fertilizers, as the culprit and thus to curtail the contamination at its source.

## THE 1990's:

### 1990

- Population of the Great Lakes basin reaches approximately 33.4 million, 8 percent more than in 1970.
- Behavior differences found in New York infants whose mothers ate Great Lakes fish.
- Biennial report of the International Joint Commission states that exposure to persistent toxic substances, even at low levels, is a threat to children's health. The Commission recommends that Lake Superior be designated a demonstration area where there will be "zero discharge" of these substances.
- Survey shows 20% of Toronto residents use bottled water instead of tap water. The rise in bottled water usage reflects a growing perception among the public that drinking water is increasingly contaminated with pollutants, and is therefore unsafe.
- The St. Lawrence River, the source of the drinking water for about half of Quebec's 6.7 million people is so polluted that beluga whales in the river are dying.
- In B.C., where six pulp mills dump and estimated 32,000 tons of potentially toxic chemicals into the Fraser River each year, the environmental organization Greenpeace labels the river the "biggest sewer line in British Columbia."
- Federal officials announce that industrial polluters annually discharge an estimated 1.7 billion gallons of liquid waste into Canadian lakes and rivers, an amount equal to the water that flows over Niagara Falls in a 10-hour period.
- Committee of federal and provincial environment officials identifies 10,000 potentially hazardous locations in Canada for drinking water. About 1,000 are given top priority for cleanup, and at least 50 are "orphan" sites, abandoned by their owners and adopted under the National Contaminated Sites Program.

### 1991

- United States-Canada Air Quality Agreement calls for reductions in acid rain.
- The two national governments, Ontario, Michigan, Minnesota and Wisconsin agree to "A Binational Program to Restore and Protect the Lake Superior Basin."

### 1995

- The U.S. Environmental Protection Agency issues water quality guidance for the Great Lakes, known as the Great Lakes Water Quality Initiative.
- A reservoir in Victoria, BC, becomes contaminated with toxoplasma. The contamination comes from animal feces and causes flu-like symptoms, which can be lethal for people with weakened immune systems.
- Chlorine Doubts:
  - Health Canada study shows bladder cancer rates are up to 13-percent higher among people who drink chlorinated water than among those who consume little or none. "If the chlorine levels are low, the risk is low," says federal scientist Barry Thomas. "At the high end, were getting into an area where we have concerns."
  - Great Lakes Water: Is there a cancer connection?:

-Health Canada study of Great Lakes drinking water shows that 10-13 percent of bladder and colon cancers in Ontario (about 520 cases) could be attributed to drinking and showering in chlorinated water over a period of at least 35 years. The studies focus on one group of byproducts formed when chlorine reacts with organic material like decaying leaves and bacteria. Trihalomethanes (THMs) -the best known being chloroform gas- have been linked to certain cancers.

### 1996

- In an effort to cut costs, the government of Ontario drops E.coli testing from its Drinking Water Surveillance Program.

- Outbreaks of cryptosporidiosis occur in the cities of Cranbrook and Kelowna, causing widespread diarrheal illness and temporary "boil water advisories":

-Cryptosporidium is a small, single-cell parasite that may be found in the stool of wildlife and domestic animals, particularly cattle, and can infect the intestines of humans as well. The parasite is particularly dangerous for individuals with weakened immune systems. When in water, the parasite is contained in an egg called an "oocyst", which is highly resistant to environmental conditions such as cold weather or moisture. In 1993, an estimated 400,000 Milwaukee residents experienced similar illness during a cryptosporidiosis outbreak, which was thought to have been caused by runoff from a slaughterhouse. While the causes of the outbreaks in Cranbrook and Kelowna have not been conclusively determined, there is evidence to suggest that high spring run-offs contributed to the outbreak by carrying the cryptosporidium parasite into the drinking-water supplies. Other British Columbia communities with a history of biological contamination in the water supply include Cassiar, Creston, Fernie, Kimberley, Kitimat, Lytton, 100 Mile House, Penticton, Rossland and West Trail, Chilliwack, Kamloops, Nakusp and Matsqui.

- Collingwood contamination signals water trouble in Ontario:

-Hundreds of people in Collingwood, Ontario, become ill after cryptosporidium, a parasite linked to human feces, contaminates the drinking water. No one dies, but it is a clear signal that Ontario's water-monitoring system is faltering. Four years later, in Walkerton -one hour's drive from Collingwood- is devastated by a lethal contamination of E.coli in the water supply.

### 1997

- Disease-causing cryptosporidium parasite contaminates the drinking water

supply of Northern Ontario town, Sioux Lookout.

-The water of Sioux Lookout, a town in Northern Ontario, tests positive for cryptosporidium contamination and for the Giardia (beaver fever) parasite. An adequate filter will cost from \$3 million to \$7 million, says Mayor Hubert Morrison, "and that's too much for a community our size." Spread through the feces of animals and humans, the cryptosporidium parasite is difficult to eradicate because its hard outer shell protects it from conventional chemical treatments. Residents receive the boil water notice in April, but many believe the problem has been present for years. "My daughter was sick with cryptosporidiosis for about six weeks in 1992," says Danielle Blair. "Then my son got it. I do worry about getting it again."

- Water Surveillance Program in Ontario shut down:

-In an effort to cut costs, the government of Ontario shuts down the province's Drinking Water Surveillance Program. It also passes Bill 57, "The Environmental Approvals Improvement Act," which, among other improvements, prohibits legal action against the government by anyone adversely affected by the Environment Ministers failure to apply environmental regulations.

### 1998

- E.coli detected in drinking water of Walkerton, Ontario:

-Walkerton, Ontario: The town's drinking water receives its last inspection by the Ontario Ministry of the Environment in February 1998. The inspection shows there have been problems with the water for years including the detection of E.coli in the system, The Ministry outlines improvements that should be made, but short of inspection staff, it never schedules a follow-up inspection to see if the improvements are carried out.

## 2000

- Cuts cause concern in Ontario's Water Policy Branch:

-Staff at Ontario's Environment Ministry's Water Policy Branch become more and more concerned about the safety of the province's drinking water. In January, the staff sends a report to the government warning that "Not monitoring drinking water quality is a serious concern for the ministry in view of its mandate to protect public health." The report states that a number of smaller- municipalities are not up to the job of monitoring the quality of their drinking water. It further warns that because of the privatization of many testing labs, there is no longer a mechanism to ensure that the Minis", and the local Medical Officer of Health, are informed if problems are detected in local water systems. The Ontario government ignores the report.

- The tragedy in Walkerton, Ontario

"We have a terrible tragedy here." With those words, Ontario Premier Mike Harris waded into the Walkerton, Ontario water crisis on Friday, May 26, 2000. He addressed a crowd of reporters and residents in the normally quiet town in the heart of Ontario's rural heartland; a part of the province that normally gears up for a flood of fun seekers at this time of year. Instead, Walkerton began the transition into the town "where those kids died from E. coli". It's not what anyone wanted, but it is the end result. Reporters from around North America descended on the area, trying to get to the bottom of what's being described as Canada's worst-ever outbreak of **E. coli** contamination.

Seven people died from drinking contaminated water. Hundreds of people suffered from the symptoms of the disease, not knowing if they too would die. And according to the local medical officer of health, it all could have been prevented. Dr. Murray McQuigge stuns the country with his revelation on CBC Radio on Thursday, May 25, that the Walkerton Public Utilities Commission knew there was a problem with the water several days before they told the public.

## 2001

- Erickson loses chlorination battle

A B.C. community's 10-year battle over the safety of its water supply takes a dramatic turn. Erickson, in British Columbia's Kootenays has resisted having its water chlorinated. Many members of the community have been collecting data on chlorinating processes and possible links between cancer and the popular water treatment chemical. A frustrated regional health officer pushes the provincial government to take control of the situation and the Minister of Municipal Affairs pulls the plug on the Erickson Improvement District, the local authority charged with delivering tap water.

- Settlement reached in Walkerton's tainted water tragedy

Residents of Walkerton, Ontario, could receive at least \$2,000 as part of a tentative deal to settle a class-action lawsuit against the Ontario government. In exchange, the provincial government won't admit to any wrongdoing in connection with the poisoning of the town's water supply that left seven people dead and more than 2,000 sick.