Station #7
Sydney Tar Mines: Canada's Love Canal
The **Sydney Tar Ponds**, also referred to simply as the Tar Ponds, is a hazardous waste site on Cape Breton Island, Nova Scotia, Canada. Located on the eastern shore of Sydney Harbour in the former city of Sydney (now amalgamated into the Cape Breton Regional Municipality), the Tar Ponds form a tidal estuary at the mouth of Muggah Creek, a freshwater stream that empties into the harbour. Over the last century, runoff from coke ovens associated with a now-decommissioned steel mill filled the estuary with a variety of coal-based contaminants and sludge. Efforts to clean up the waterway have been dogged by false starts, delays, and political controversy. After extensive public consultation and technical study, a CDN$400-million cleanup plan, jointly funded by the Government of Canada and Nova Scotia, awaits further environmental assessment.

![Toxic Sludge on Cellar wall](image1.jpg)

**Figure #1**
Herring gulls resting on a mud flat in the South Pond of the Sydney Tar Ponds, September 2004.
"Canada's policies on toxic waste and abandoned mines are about as progressive as were those in the United States three decades ago. We have no policy and we desperately need one," says Elizabeth May, Executive Director of the Sierra Club of Canada and member of the Green Budget Coalition. "Ad hoc decision making wastes millions of dollars and places human health and the environment at risk. We need a Clean Canada Fund to apply resources consistently within a coherent policy framework."

Sydney Tar Ponds

This is a view of the North Tar Pond in Sydney, Cape Breton, Nova Scotia. This area was industrialised and prosperous because of the coal mines and steelworks which thrived there for over a century. The industries have now gone, leaving behind high unemployment and environmental damage. Nominated by some as the most polluted place on earth, Sydney Tar Ponds are open to the tides and flow into Sydney's harbour. The land and water are heavily polluted with arsenic, lead and Polychlorinated Biphenyls (PCBs). Some activists blame the Tar Ponds on the high mortality rate in Cape Breton, which is 16% higher than the national average and on other problems in the area (see http://www.cbc.ca/news/background/tarponds/) An ambitious plan to rehabilitate the area is planned. See http://tarpondscleanup.ca/reports/Project_Description_Executive_Summary.pdf

**Figure #4**
Making Jobs out of Pollution

"Underneath the town dump is where they used to throw PCBs and other chemicals from the steel plant," says Don Deleskie, a retired steel worker turned community activist. "You gotta see the stuff. burned the skin off my hands once." He stirs the goo, causing a rainbow of colours to wash downstream.

In Sydney, Cape Breton, the remains of Canada’s first industrial boom still haunt the working-class community of Whitney Pier. It’s all part of the largest urban chemical hazard on the continent, a coal-fired legacy of mines, foundries and failed regional development strategies that have left behind 33 times the amount of toxic sludge found at Love Canal.

Local mural reads, "No Matter what all you may hear, the sun still rises over Whitney Pier." The thing that offers steady employment in Cape Breton is precisely the thing that governments, companies and many citizens don’t want to touch: several hundred new jobs could be easily created with a comprehensive clean up of the tar ponds.

Most of Sydney’s waste came from the foundry’s coking process, where coal was metalurgically fired to produce a vital fuel for producing steel: the coke ovens operated nearly continuously, 24 hours a day, from 1901 to 1988. Estimates range from $500 million to $2 billion for a complete clean-up — a project that would employ hundreds of unemployed steel and coal workers.

Figure #5
I have lived on Frederick Street my entire life. I was born and raised here. In 1987 I brought my husband here and we proceeded to produce and raise our son. At that time there was never any publicity about the monster across the street. In fact, the Post carried an article saying the coke ovens site was to become a park, with a ballfield and mini-mall.

One year ago we came home to see men in environmental suits hanging Human Health Hazard signs on the fence 300 feet from our front yard. Around that time the multi-coloured ooze appeared from the ground. Before this we believed we resided in a safe area.

Since last April we have had our lives thrust into turmoil. Daily we are subjected to aromas and sickness that are attributed to the coke ovens site. We have been neglected by government, have had our own relatives say we are crazy, and have even been subjected to verbal abuse from neighbouring streets.

We have been called outsiders looking to make a fast buck. In 1977 my father, Clarence Keller, had his life destroyed in the coke ovens explosion. So no one can tell me I need a lesson on Pier history.

Fresh air and a safe environment are not luxuries. They are a right. We are committed to our battle and will not give up. Unless those who criticize have walked a mile in our shoes, they should keep it to themselves.

Debbie McDonald
Frederick Street, Sydney

Construction near tar ponds raises questions

by Lloyd MacDonald
To the editor:

Incredibly, work has not stopped on the Sobeys expansion at the Sydney Shopping Centre. PAHs and hydrocarbons exceed guidelines, and benzo A pyrene is six times greater than acceptable. The plan to keep these substances from entering the building and food products has apparently not been determined.

How a building permit was issued in the first place must be answered by those responsible. How can an apartment building on Intercolonial Street be forbidden to be lived in because of its proximity to the tar ponds, and yet Sobeys is allowed to build practically on top of the sludge and poisons?

Will the carcinogens under the ground permeate into the store, onto the meats and produce? This is a question that should be asked and answered. Why is work allowed to continue? Were tests on this property done before construction began and before the building permit was issued?

Someone at city hall owes an explanation to citizens.

And imagine: the Industrial Cape Breton Board of Trade is angry about the tar ponds Internet website. Did I hear the board get angry when this construction started? Did it ask questions regarding the health and safety aspects of a food store in this location, just feet away from the tar ponds?

Sobeys executives are hundreds of miles away, in Stellarton, safe from the tar ponds. Are they worried about those of us who remain here? I think not.

Lloyd MacDonald,
Park Street, Sydney

Figure #7

Pollution silence proved deadly

by Donald DeLeski

To the editor:

Once again I deem it necessary to express my outrage regarding the high number of people dying from cancer and
other illnesses due to the emissions that came from the former coke ovens stacks. Make no mistake, the federal and provincial governments knew steelworkers and the residents of Sydney would die because of these emissions.

Many who never worked on the coke ovens died because of the cancer-causing agents coming from the stacks. For many others, quality of life was destroyed. The government is not concerned that former coke ovens workers will bring legal action for the government will hide behind the Workers' Compensation Act. I would say the government is concerned that residents who never worked on the steel plant or the coke ovens could take legal action.

Who gave governments the right to turn the people of Sydney into guinea pigs? We will have researchers here talking about genetics and smoking. Those who worked on the coke ovens were sucking down the equivalent of 35 packages of cigarettes a shift. The high pollution was falling in residential districts 24 hours a day.

As I stated in 1993, we must remember those who died because of government omission on the coke ovens, for if we forget those who died it would be the same as agreeing with what the government did. I always thought it was against the law to poison people. Was I wrong? I thank Donnie MacPherson for shining the light on the high cancer rates in Sydney. You will notice I have mentioned only Sydney, and I have done this because the government documents I have in my possession mention only Sydney.

If the federal and Nova Scotia governments had been at war with the residents of Sydney, it would seem their mandate would have been to take no prisoners. But then again, we would have had a chance to defend ourselves. Silence is not always golden. In this case it was, and still will be for years to come, deadly!

Donald DeLeskie,
Sydney

Figure #8
From DISCO to SYSCO and JAG
Adapted From The Book Frederick Street - By Barlow And May

1900 Dominion Iron and Steel Company (DISCO) begins construction of steel plant in Sydney
1910 Amalgamation of DISCO and Dominion Coal Company into Dominion Steel Corporation
1920 British Empire Steel Company (BESCO) created through corporate merger of Dominion Steel Corporation, Nova Scotia Steel, the Halifax shipyards, Wabana iron mines and the Eastern Car Company
1928 Creation of dosco—Dominion Steel and Coal Company—controlling the steel mill
1957 DOSCO becomes a subsidiary of British multinational, Hawker-Siddeley
1967:
- Oct. 13 - "Black Friday," the day Hawker-Siddeley announced its intentions to close the steel mill
- Nov. 20 - Parade of Concern to save the steel mill
- Dec. - Creation of Sydney Steel Corporation (SYSCO), a provincial Crown corporation, taking responsibility for the steel mill
1982 The federal Department of Fisheries and Oceans closes the harbour to lobster fishing due to contamination of lobsters
1984-1985 Tar Ponds was sampled by Acres International Ltd. during site assessment
1986 First announcement of federal-provincial funding for clean-up of tar ponds with promised completion date of mid-1990s
1987 Acres International Ltd. was awarded a contract to clean up the site
1988 Sydney’s notorious Coke Ovens finally shut down
1989 Superburn Joint Venture was awarded a contract to build 2 fluidized bed incinerators to burn the toxic waste.
1992-1993 Failure of the sludge pipeline, and inability of the incinerator to burn PCBs safely causes Federal government to abandon the project
1994: Sept. 4 - N.S. government assumes ownership of incinerator through Crown corporation, Sydney Tar Ponds Clean-Up Inc. (STPCUI)
1995 JWEL-IT Joint Venture (contracted by STPCUI), a consortium made up of Nova Scotia consulting firm Jacques Whitford Environmental Ltd. (JWEL) and International Technologies (IT) of Pittsburgh discovers much larger concentration of PCBs during testing. They propose options including incineration, land-filling, and encapsulation.
1996:
• Jan. - Province admits incinerator will not work; announces Plan B, the "encapsulation option" leaving the toxic sludge where it is and burying it in slag
• Aug. - Province abandons encapsulation option amid public protests; federal-provincial announcement of new process to determine cleanup approach—the Joint Action Group (JAG)
1998:
• April - Sign reading "HUMAN HEALTH HAZARD" is posted on a fence along the railway embankment adjacent to Whitney Pier's Frederick St. (Fence erected by Devco in Fall of 1997) Shortly thereafter, an orange Ooze appears in resident Debbie Ouellette's basement, as well as in the nearby brook.
• Aug. - a black ooze is discovered in the Frederick St. Brook just outside the fence.
• Aug. - Provincially funded CANTOX study claims contamination poses no serious health risk to Frederick St. residents.
• Sept. - A report by Health Canada scientists Dr. Pierre Band and Dr. Michel Camus reveals Sydney residents have much higher death rates from 22 diseases than other Canadians do.
• Oct. - Dr. Judy Guernsey of Dalhousie University in Halifax and other researchers find Sydney-area men and women much more likely to develop cancer than other Nova Scotians.
1999

- Jan. - A review of the 1998 Cantox study by Ontario researchers on behalf of the Sierra Club environmental group disputes Cantox’s claim that Frederick Street residents are not at risk.
- April - Three Ontario doctors commissioned by Cancer Care Nova Scotia review the two 1998 studies and find no "specific cancer problem, but rather an overall health problem" in Cape Breton. Lifestyle factors such as smoking and obesity are blamed.
- May
  - Evacuation of residents of Frederick Street and Curry’s Lane
  - Dodds Birth Outcomes Report on live and stillbirths from 1988 to 1997 determined that for all major anomalies combined, the rates in Sydney were about 27 per cent higher than in the rest of Nova Scotia
- June - Federal-Provincial announcement of $62 million of JAG process, health studies, demonstration projects and sewer collector pipe; residents of Frederick Street and Curry’s Lane to be offered permanent relocation

2000: July - Following through on his election campaign promise, Premier John Hamm decides to stop government subsidies to the Sysco plant. The steel plant finally closes.

2001:

- May 2 - Sierra Club of Canada’s Executive Director Elizabeth May begins 17 day hunger strike to demand relocation of affected Sydney residents.
- July 6 - Public Health officials test 237 people for lead and arsenic exposure. It is revealed that children have tested positive for high levels of both lead and arsenic in their urine. See Sierra Club’s Testing and Risk Assessment Backgrounder
- Fall - An updated 1999 study by Dr. Linda Dodds of Dalhousie University says Sydney had a 25 per cent higher rate of birth defects than the rest of the province, 1988-98.
- Dec. 4 - A Provincial-Federal report by JDAC Environment concludes that the area around the Sydney Tar Ponds is as safe as any other urban area. Environmentalists with the Sierra Club were skeptical of the report.

2002:

- Feb. - Local media uncover documents revealing that high levels of toxic substances such as arsenic, lead,
manganese and benzene have been found on every block of a Whitney Pier neighbourhood next to the government-owned coke ovens site.

- March 6 - Government soil testing program determines it's safe to live close to the tar ponds. More than 300 soil samples were taken in areas around Sydney, but researchers say only one sample had unsafe levels of toxins. Many people in the community aren't convinced.
- Aug. 16 - Only half of the 90 people eligible to have their contaminated properties cleaned up by the province sign up. Some people demand to be relocated instead. Others say a clause in the waiver prevents them from suing the government later.
- Oct. 22 - Environmental Commissioner Johanne Gelineas criticizes the Federal government's handling of the Tar Ponds cleanup. Despite millions of dollars already spent, the government still has no clear plan. A few days later, Environment Minister David Anderson and Robert Thibault, Nova Scotia’s representative in the federal cabinet, meet with Sydney residents.

2003:

- Feb. 18 - The Federal budget alots $340 million over two years to help clean contaminated sites across the country. The Tar Ponds are specifically mentioned, but no specifics are given.
- Feb. 24 - Remediation Options are presented to the public; options range from burying contaminated material to washing it and burning it. Costs could exceed $600 million over 11 years.
- Mar. 5 - Sierra Club of Canada calls for a Full Panel Review of the tar ponds cleanup, claiming JAG's 10 options are ineffective and unsafe. Similar to a royal commission, the review could take up to three years to complete.
- Mar. 26 - Health Canada study by doctors Band and Lambs suggests the closer you live to the Tar Ponds site, the greater the health risk. They examined death rates from 1961 to 1988.
- Mar. 28 - Over 160 Whitney Pier residents file suit. Defendants being considered include the federal and provincial governments plus a number of private companies that operated on or near the Sydney tar ponds and coke ovens site when the steel plant was in operation.
- April 5 - Health Canada announces soil study (draft); toxic boundaries extended to Ashby and parts of Sydney’s North End.
- April 7 - Lambert dust study released by Sierra Club. Household dust levels show that all three neighborhoods surrounding the Sydney tar ponds, steel and coke ovens site have been significantly
affected by 100 years of steel making.

- May 16 - JAG announces Property Value Protection scheme to protect Tar Ponds property owners from financial loss.
- May 28 - JAG passes a motion recommending remediation options to government. Co-burning of toxic wastes figures largely in recommended options.
- June 7 - Governments pull the plug on JAG funding
- June 17 - Membertou (First Nations) demands compensation. Chief Terry Paul wants separate consultation sessions with government.
- June 24 - Residents surrounding Point Aconi Power Plant reject co-burning of toxic sludge in their area.
- Aug. 13 - First shipment of Domtar tank sludge goes to Mercier, Que. by truck.
- Aug. 30 - Lawsuit gains momentum as 185 Sydney residents file intention to sue
- Sep. 17 - Government replaces JAG with "lame-duck" liaison committee.
- Sep. 19 - Mystery engulfs extreme toluene levels recorded in Sydney.
- Sep. 25 - NSPI takes heat as Pt. Aconi plant scores poorly on pollution ratings .

Figure #9
Before venturing into deep mines, miners in the 19th century lowered canaries into the mineshafts to determine whether potentially lethal gases (e.g., carbon monoxide and methane) had accumulated. Characterized as odorless, tasteless, and colorless, the build-up of such gases was often undetected. If the canaries died, the miners took this as a signal not to descend into the mine until the shaft was ventilated. Today, some animal and plant species, even entire ecosystems, are reacting to environmental stresses, serving as a similar early warning system.

Figure #10