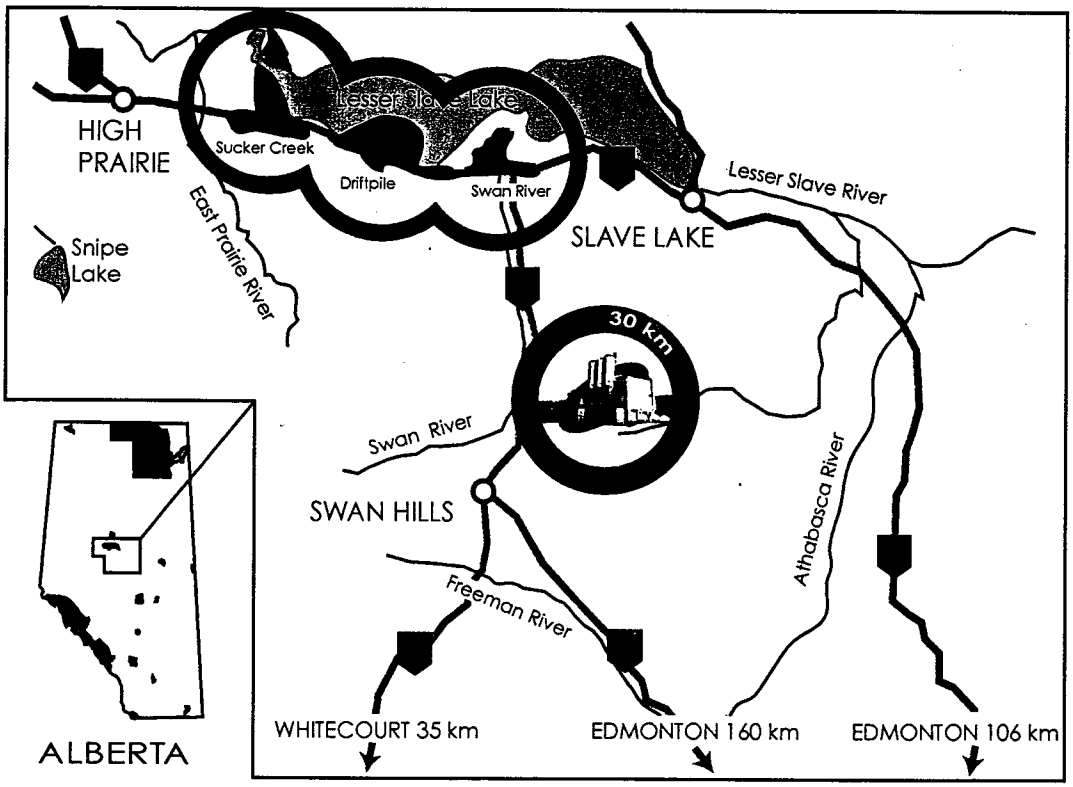
# Hazardous Waste: Disrupted Lives




## First Nation perspectives on the Alberta Special Waste Treatment Centre at Swan Hills

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# Executive Summary

This study was initiated after a court order from the Provincial Court of Alberta. In October 1996, a leak at the Swan Hills Hazardous Waste Treatment released contaminants out into the environment. After the accident, Bovar Inc. entered a guilty plea and was assigned the largest fine in the history of the Alberta Environmental Protection and Enhancement Act. After many studies on the environment and public health arising from this incident, a health advisory remains in effect. *This study aimed to discover First Nation (adjacent to the plant) information needs, perceptions and concerns and existing resources with respect to issues related to the 1996 accidental contaminant release and the subsequent health advisories.*

This report is coming at a time of great change for the treatment plant. Since this study was initiated, ownership of the company has changed. Sensor Environmental has agreed to run the plant for the 12 months following the plant closure by Bovar on December 31, 2000. The future of the plant is still uncertain.

## Health advisories don't add up

Current advisories are confusing to people, although people are abiding by their perception of what the advisory is. Some people think the current advisory suggests limiting consumption of game caught within 30 km of the plant to 13 ounces per month. This advisory, issued by Alberta Health (now called Alberta Health and Wellness) and applying to low consumers of game, is ridiculed because many people eat more than this. The Health Canada advisory, that says not to eat meat within 30 km of the plant, is also made fun of because "*moose travel farther than this.*" No one reported eating wild game from within 30 km of the plant.

**The current advisory councils NOT EATING wild game from within a 30-km radius of the plant. At the same time, Health Canada recognizes the benefits of traditional food use and suggests that First Nations continue to consume wild game. The advisory does not refer to plants, herbs, or berries.**

Two advisories are referred to throughout this study:

a. *Original Alberta Health advisory*, December 13, 1996. This public health notice advises against eating wild game taken from the Swan Hills area. (See full advisories in Appendix A)

b. *Revised Alberta Health advisory*, May 16, 1997. This advisory suggests limiting eating wild game taken from within a 30-km radius of Swan Hills Treatment Centre to 13 ounces per month.

c. Health Canada released a study confirming the original Alberta Health advisory, 2001 for First Nations. This Health Canada

supports the original advisory issued by Alberta Health in December 1996, due to higher consumption levels of wildgame by First Nations.

## Institutional change

This study recommends greater co-ordination between agencies when advisories are being considered. However, greater co-ordination between agencies may be insufficient to contend with some of the issues that arose in this research. Health Canada is responsible for First Nation health while Alberta Health is responsible for the health of all Albertans. An example illustrates this point: one First Nation woman, married to a non-aboriginal man, was furious to find that he got a health advisory when he purchased his hunting license. This woman had never heard of the advisory through any other source. This incident points to an institutional problem that may not be fixed by tinkering with how communication occurs.

## Decisions don't include First Nation perspectives

Food advisories are one way the government informs and protects the public from the potential effects of contaminants on their health. Community members believe they have a right to be involved in the process of making decisions about how to manage their traditional territory. The communities are also concerned with development of standards for traditional foods. Communities believe they have the right to:

- Define the problem,
- Collaborate in designing an approach to address the problem,
- Run as partners any research that is done, and
- Communicate the results of the decision.

The government used the best information they had available to estimate the risk to the health of community members from the contaminant release. However, the government isn't always able to estimate the less measurable effects of accidents. For example, some elders spoke of how they won't harvest plants anymore from the territory surrounding the plant. This can adversely affect the health of individuals because they no longer receive care from that elder. Other people spoke of how they are scared to eat traditional food. They are now eating more store-bought food. **This can adversely affect the health of the individual through increases in the rate of diabetes, a well-documented effect in native populations experiencing such shifts in diet.**

## Communities report significant changes since the accident

1. People spoke of how their way of life has been affected.

2. Herbs and berries are no longer used from the area.

*We take the roots for medicine, for curing ourselves of sickness and all them roots too and herbs are damaged out mostly in that area. – Driftpile elder*

3. The area has been abandoned for teaching and camping.

*It was a good Indian holiday there. – Swan River community member*

4. Hunters and trappers don't use the area anymore.

Hunters said they are moving to new areas, such as Snipe River, Judy Creek, Fox Creek, Martin Hills, Smith, Athabasca, Freeman River and Goose River. These changes cost more money to travel farther.

5. People feel fear and a lack of control.

*I feel sad, sick and sorry. I am sitting here getting angry, hurt feelings. – Swan River elder*

6. Front-line health workers report a change in health status.

*A lot of diabetics now spring up, last year I think we were getting something like two a month. And children as well. And we try to promote health ... Everything we try to teach is contradicted. – Driftpile community member*

## Communities report advisories miss the mark

Government agencies relied on conventional channels for government communications that do not work to convey information to rural First Nation communities. Community members themselves are the best-placed advisors on how to communicate effectively and this report documents how they prefer communication to happen. *Communication programs need to be designed to work with the communities to address the above issues.* Communication efforts should build on existing mechanisms (e.g., elders meetings and band meetings) and should train local people to design and convey the information needed by community members.

Hunters, trappers, elders, and many others spoke of how they know the health of the environment through observations of animals and plants. When a moose is killed, the organs are examined. Local ways of knowing the environment are important. Communication efforts need to include and build on the ways that people know and understand the environment and their relationship to it.

## Communities advise government and industry

Community advice to the government from the communities was consistent: get out to the communities and listen to them. The perception that southerners do not understand the feeling of living near a waste plant was common in the communities. People were seeking more information about the safety of the plant, the possibility of moving the plant, and about the meaning of the health advisories. Further, communities are looking for opportunities to be involved in consultation on further importation of hazardous waste from other countries, involvement in monitoring or review of permits and studies of operations that may affect their traditional territory.

## Communities advise the leadership

Individuals in the communities spoke of how they felt left out of the information loop in their own communities. Elders spoke out strongly about the need to refine the community process for making decisions, and to consult elders constantly. Citizens requested:

- General council meetings;
- A chance to participate in decisions made about the territory;
- Variation of the leaders who represent the community at the negotiations with plant management and the government, and
- Dialogue with other lakeside communities such as Faust.

## Communities need more information

People spoke of the community learning that must occur on topics such as emergency response by the plant, diabetes prevention, the importance of the traditional diet and the risks of store-bought food, and the effects of contaminants on the environment. Front-line workers spoke of the conflict they face since release, that of telling people not to eat country food from the plant area, but encouraging the continuation of this diet from other country sources. Outreach and support is needed for local communicators, such as nurses, community health representatives (CHRs) and doctors who help to get key health messages out. Barriers such as the overload of key workers will need to be addressed.

**Lesson – Research needs to be responsive to community needs.**

*Replicate successful research relationships* – The health assessment research conducted jointly by Health Canada and LSLIRC met the needs of these communities because the parties hired independent experts, defined

clear roles and responsibilities, and worked hard to establish trust and a jointly-agreed upon process. Future assessments should build on this successful model.

Even though this model was successful, the Health Canada and LSLIRC study was conducted without with a comparison, or background, community. The First Nations are considering taking samples again of 50 high consumers to establish baseline levels. As a result, there is no context for the figures that have been released. Many statements of the study member blood levels being eight times higher than those of people in Swan Hills have been made. This comparison is not necessarily valid as methods and labs used for the two studies (Alberta Health and the Health Canada/LSLIRC studies) were different. A research project incorporating both communities and appropriate reference (background) communities should be encouraged to help clarify and interpret the apparent discrepancy in PCB levels between the two population groups.

Further, studies that have been done are exclusive to the plant. First Nations are concerned with a much larger geographic scope. Environmental monitoring may need to focus on a larger area and on issues of concern to the communities, as well as on species of concern to the communities.

**Lesson – Agencies are responsible for risk communication and involving the communities.**

Considering the uncertain future of the plant and the past history of unsuccessful risk communication, the government would be well advised to include a variety of stakeholders in the coming decisions for the plant. Decommissioning the plant or continuing to run it should be decisions that are made with and by the communities that are affected by its existence.

Past efforts to disseminate advisories have had limited success, as this study has shown. Alberta Health does not have a mandate to communicate messages directly to First Nations. However, partnerships between Health Canada and Alberta Health should be encouraged so that the two agencies can effectively plan for communication with First Nation communities.

Communities are looking for opportunities to be involved in consultation on:

- further importation of hazardous waste from other countries;
- development of standards for traditional foods, and
- involvement in monitoring or review of permits and studies of operations that may affect their traditional territory.

**Lesson - Industry is responsible for effective risk communication.**

*Develop emergency response plans* – Telling communities not to worry often achieves the opposite intent. Instead of advising the communities that

they should not be concerned, industry should demonstrate the safety of the plant to its' neighbours. The plant should prepare, in collaboration with the communities, risk management plans and emergency response plans. These materials should be developed with the communities affected, so that they can answer the concerns and questions of potentially affected citizens. Pre-testing of materials with the intended audience will be key to communication success.

**Lesson – Communities are responsible for effective risk communication.**

Community members should be involved in deciding how data developed in the Traditional Monitoring Program will be used, how local indicators will be used, and what will be agreed upon early warning signs. Monitoring programs should take into consideration "traditional" signs already documented, and known among experienced harvests and Elders.

**Lesson – A risk communication program needs to be developed.**

It seems that the various perspectives, information, and roles of industry, agencies and communities are critical to the success of a communication effort. We recommend that a risk communication program be developed that integrates the information and perspectives of these parties.

*Include people in planning* – Agencies and industry must strive to include a breadth of people in the planning for risk management decisions that can affect First Nations. For example, elders and health care workers were key leaders that were not approached during the planning or the release of the advisories. If management decisions are to be understood or applied, these informal leaders need to be a part of the planning. In cases where agencies are considering applying a food advisory where First Nations may be affected, a select group of community representatives should be included as advisors before an advisory is issued. When the concerns of First Nation are implicated, special consideration should be made of the implications of decisions on cultural, social and dietary factors. Community members are best placed to advise on these potential effects. Members from the community that could advise on these issues include front line health workers, elders, Chiefs or Acting-Chiefs, and band council members, among others. Other sources of expertise on the intangible effects of risk management decisions may include public health workers, anthropologists, sociologists, planners, dieticians, geographers and front-line community workers.

Involvement of local representatives from the beginning of risk management processes more clearly identifies the problem, perceptions, potential management options, their impacts (direct and indirect), supports the building of trust among stakeholder groups, and identifies key resources (people, etc.) to implement risk management options.

# Research on Health Risk Communication in the Swan Hills Area

*What do we know about health risks from exposure to PCBs and other contaminants?*
*What kinds of information do people want about their own health risks?*
*What kinds of concerns do they have about the health risk advisories in place?*
*How have health risk issues affected their communities?*

Researchers from the University of Alberta are hoping to answer these questions through a series of research studies in the Swan Hills region to look at community concerns about health risks. The overall purpose of these studies is to develop a better understanding of people's concerns, knowledge and communication needs. This research is funded under the court order for the October 1996 release of PCBs from the Alberta Special Waste Treatment Centre. Under an innovative program called "creative sentencing", a portion of the fine paid by Bovar (the former operators of the Centre) is being used to fund research projects on concerns in the area.

These studies started in January 2000 and will run until the fall of 2001. The research consists of several components:

- Working with the First Nations' communities of Swan River, Sucker Creek and Driftpile to try to learn about what these communities know and need to know about health and environmental risks (as summarized in this report). This study component is being done together with researchers from the Rutgers University Centre for Environmental Communication.
- The collection of scientific information about human health risks from PCBs in food, information about the chemistry of PCBs and dioxins, and technical and monitoring information. The goal is to put together a clear summary of available information that can help people understand what we know and what we don't know about these health risks.
- A telephone survey of Swan Hills' residents to get information about their understanding of environmental issues and available health information.
- Talking with residents in the Swan Hills area to find out what they know and think about the fish and wild game consumption advisories, and how they think the community should be involved in both setting and reviewing advisories.

The study results and recommendations will be returned first to the people who participated in the study to make sure they agree with the findings. The final recommendations will then be returned to the Provincial Court, and to the government agencies involved in communicating health risks.

For further information on these studies please contact:

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