

# Human Health Risk Assessment (HHRA) - Flin Flon / Creighton Community Advisory Committee (CAC)

June 17, 2008 – Creighton Community Hall  
Meeting #6

## Attendance

Community Advisory Committee (CAC) Membership					
Don Aasen Town of Creighton	X	Bev Hill NorMan Regional Health	X	Deb Odegaard FF&D Env't Council	X
Robert Bratvold Creighton School Board	X	Tom Lindsey Steelworkers Union	X	Bill Pauley Flin Flon School Division	
Katie Garinger General Public	X	Charlene Logan MCRRHA		Dave Price Green Project	X
Ian Cooper HBMS	X	Barb Lyons General Public		Tom Therien City of Flin Flon	
Cheryl Hordal General Public	X	Christa McIntyre Healthy Flin Flon	X		

Guests / Other		
Sheldon McLeod (Facilitator) S.L. McLeod Consulting	Shirley Neault (Recorder) HBMS	Elliot Sigal (Consultant) Intrinsic Environmental
TAC Member (Observer) SK Government	TAC Member (Observer) MB Government	1 Public Observer
Dr. Susan Roberecki (via telephone) MB Health and Healthy Living	Dr. James Irvine (via telephone) SK Health	

## Introduction

- Facilitator Sheldon McLeod called the meeting to order and reviewed the agenda. A small timing change was made to accommodate the Health Department visitors.
- A review of the draft notes of the previous meeting was conducted and approved for posting on the website.
- Action Items from the previous meeting were reviewed. The status of these action items is summarized in the tables throughout these notes.

Question: Has the Manitoba Government forwarded any further soil replacement plans?

Response: Not that anyone at the meeting is aware of.

## Recent Media Coverage and Cancer Rates

Reference Documentation – Info Recent Release of Flin Flon Cancer

- Health Officials from MB and SK noted that the information used in the recent media coverage was the total number of brain, bladder, kidney and lung cancer cases in Flin Flon and Manitoba. These numbers were not adjusted for the population structure (e.g. age-adjusted). Although the total number of cases appears to be higher in Flin Flon, without adjustment, it could be a statistical error.
  - The Health Departments are continuing with their plans to add Creighton and Saskatchewan data to the Flin Flon and Manitoba data, which may help to adjust for statistical error. Other factors will also be added to this health risk assessment and community health status assessment (e.g. smoker, other cancers, other diseases, etc.).
  - The assessments are targeted for completion by late summer / early fall.

Question: Why did the media focus on four types of cancer? Are these cancers linked to metals?

Response: Cancer information was initially requested from Manitoba Health and Healthy Living and CancerCare Manitoba from Manitoba Liberal Leader Jon Gerrard on these four types of cancer only.

Background: There are links between cancer and some of the metals involved, however, the information that is often used to determine whether a chemical / metal is a carcinogen or not is from animal studies or from high dose exposures and the types of cancer found in animal studies may not translate into the same type of cancer in humans. Some metals, like arsenic, are classified as human carcinogens and have been linked to specific types of cancer. Other metals, like lead, are classified as possible human carcinogens because even though there is some evidence for the metal in high doses causes cancer in some experimental animals, there is not enough evidence to link it to human cancers.

The other challenge is that many types of cancers have multiple causes. It is often not possible to determine a cause. For example, for overall lung cancers in a population, it is estimated that 85% is attributed to smoking, 10% to radon exposure (in homes, etc) either alone or in combination with smoking, and the other 5% to all the other causes – arsenic would fit into this 5% along with many other causes such as air pollution, other industrial chemicals, etc. Therefore, even small differences in smoking rates in different communities can make significant differences in lung cancer rates for instance.

The Human Health Risk Assessment now underway will help public health officials determine whether there is an increased risk of cancers from exposure to the metals in the Flin Flon and Creighton area specific to these residents.

### **Member's Commentary – Community Feedback**

- Each CAC member was given the opportunity to share what they are hearing in the community regarding the HHRA. Comments included:
  - There is not a whole lot of discussion or concern being conveyed to CAC members.
  - The early death of pets has been speculated. No other contributing factors have been considered (e.g. pet-owner smokes; animal has poor diet, little exercise, age, etc.).
  - Since early May, a lot of school kids have been out spreading limestone. The opportunity to educate the children on environmental issues in general is great.
    - As an aside, the member mentioned that 35 hectares have been covered in the last nine years.
  - One member indicated that any related conversation is always generated by the member.
  - Most residents know and understand that the statistics portrayed in the media are not true and accurate. This adds to the "jaded" attitude of residents and, unfortunately, leads to non-residents being more concerned than residents are.
  - Some minor feedback and questions from homeowners whose yards were sampled have still been coming in.
  - This commentary mirrors that of the Sudbury study.

### **HHRA Update – Elliot Sigal, Intrinsic Environmental**

- The overall assessment is progressing well and is on schedule:
  - Data continues to be collected and analyzed;
  - The bioaccessibility (availability of metals in soil to be released into the body) study is ongoing;
  - Dust resample collection is scheduled for next week. Approximately 30/54 (as of yesterday) appointments have been made;
  - The food sampling plan has been drafted, based on the survey results. The proposal will be reviewed by the TAC before being finalized. The proposal currently includes fish and blueberry

sampling. Some assistance from the CAC may be requested for directions to fishing holes and blueberry patches. No game meat collection is planned; modelling will be used instead.

- The snow and drinking water studies are complete. The criteria were not exceeded in any of the drinking water samples. The snow report still needs something to compare to or an explanation for the rationale used to reach the conclusions in it. These reports will be released before this group meets again and will be distributed to the membership (see action #030).

Question: Are we considering hair, blood and/or urine analysis?

Response: Quite likely there will be blood and/or urine sampled. The HHRA report expected by the end of this summer will likely recommend this type of further analysis. Importantly, the HHRA results will help determine the scope of biological monitoring required. Further direction from the CAC, TAC and the Health Departments will also likely be requested.

**Presentation - Sudbury Process and Results - Elliot Sigal, Intrinsic Environmental**

Reference Documentation – HHRA Final Presentation\_SARA\_20080617

Question: The situation in Flin Flon changed radically in 1974 with the addition of the big stack, followed by other HBMS improvements. Is Sudbury's situation similar?

Response: Yes.

Question: An ecological study was done there but is not planned here. Why?

Response: At this point, only the HHRA has been recommended (see action #031).

Question: Who sets the parameters used to determine the risk?

Response: Various, mostly regulatory, bodies have published databases (e.g. Health Canada, the US EPA, etc.).

Question: If a cluster of samples that are analyzed indicate a potential problem, do you sample everything around them?

Response: Yes.

Question: Have any other HHRAs been done in mining / smelting towns? Was anything beyond negligible risk found?

Response: Yes. Examples include Trail, BC; Anaconda, MT; Peru. All resulted in major process changes to improve emission and continued relevant monitoring to measure effectiveness of the improvements.

Question: What about independent peer reviews?

Response: Yes, the Sudbury study was reviewed by a 7-member panel that produced an independent report commenting on the final draft report. Their comments resulted in more data being added before the final report was released.

- Now that CAC members see what the finished product will look like, we need to consider how to engage the public (see action #032).

Question: How many hits is the website getting?

Response: Nobody at the meeting was able to respond (see action #033).

#	Action	Responsibility	Target Date	Status
027	Forward comments or concerns from SK residents on possible precautionary soil improvement plans that MB Conservation was looking at in FF, as would relate to similar work in SK to SK Environment	CAC Members	2008-07-31	2008-02-27, new 2008-04-24, ongoing 2008-06-17, ongoing

#	Action	Responsibility	Target Date	Status
030	Distribute snow and drinking water reports to the CAC	Alan Hair / Shirley Neault	2008-07-02	2008-06-17, new
031	Request that the TAC consider recommending an ecological risk assessment	Sheldon McLeod, with Tom Lindsey / Tom Therien (on behalf of CAC)	2008-07-16	2008-06-17, new
032	Offer suggestions for engaging the public when the final report is ready	CAC Members	2008-09-01	2008-06-17, new
033	Provide CAC members with the number of hits that the soil website has received	Alan Hair	2008-07-11	2008-06-17, new

**NEXT MEETING:           Tentatively September 10 from 6:30 pm – 8:30 pm  
FF Council Chambers**