Canadian Nurses for Health and the Environment

Mining & Health: Digging for the Truth
April 24, 2015 – 6 to 7:30 pm EDT

Facilitators:
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PART 1:
Introduction to the Ajax Mine in Kamloops
Background of the Ajax Mine Project - Kamloops

For the past 3 years over 87,000 people in Kamloops have lived under threat of a huge open pit gold/copper mine 1.4 km from the city boundary. KGHM International, a Polish owned multinational corporation in conjunction with Abacus Exploration, initially planned an open pit 2.5 km wide and 1 km long with a depth of 500 meters, North and East waste rock facilities, and a 150 meter dry tailings storage facility measuring 1km by 3 km adjacent to the Coquihalla Highway. Early indications were that their application (AIR) would be filed with the BC EAO and CEA Agency by fall, 2013.
Introduction to the Issue

Citizen participation was sought by Provincial and Federal Environmental Ministries through

• a Community Advisory Group
• a Technical Working Group
• and First Nations communities.

All three groups have worked in isolation and work has been sporadic.
AJAX MINE IN KAMLOOPS

A dangerous proposal opposed by many Canadians

The proponent held public information sessions with a limited number of registrants admitted to each session. Three community response groups also emerged: Kamloops Area Preservation Association (KAPA), Kamloops Physicians for a Health Environment (KPHE) and Kamloops Moms for Clean Air. In collaboration, they have raised funds to provide educational resources throughout the community, host guest speakers and hold public demonstrations.

The risks to the health of Canadians and the natural environment are far too high!
In late summer, 2013, the proponent announced that due to further discovery of ore bodies their AIR application would be delayed. In May, 2014, KGHM unveiled a revised site plan including a wet tailings pond to replace the dry tailings stack in the original plan, a deeper mine pit, with more southerly placement of tailings, stock piles and storage facility.
AJAX MINE IN KAMLOOPS

The Ajax mining proposal has been highly controversial pitting neighbour against neighbour.

Some believe the mine will benefit the community with high paying jobs while others strongly oppose its environmental impact and potential adverse health consequences.

The silent majority await further information when the Application Information Requirements (AIR) document is released in March, 2015.
AJAX MINE IN KAMLOOPS

THREATENING AIR QUALITY AND HEALTH

Meanwhile air quality in the Kamloops air shed is already compromised. Our air quality falls short of provincial Air Care Objectives (8 micrograms/m3) at approximately 9 micrograms/m3 annually. To date an independent Health Impact Assessment has not been carried out.

For more information please visit:

http://www.stopajaxmine.ca
http://www.kphe.ca
http://www.kamloopsmomsforcleanair.com
http://faculty.tru.ca/cross/CALDER.pdf
PART 2:
Why should we be concerned?
Mining is important to Canada’s economy

Canada is one of the leading mining nations in the world, producing more than 60 minerals and metals.

In 2010, more than 220 principal producing mines (metal, non-metals and coal mines), more than 3000 stone quarries and sand and gravel pits, and about 50 non-ferrous smelters and refineries and steel mills were operating in Canada.
Canadian Mines
This is a HEALTH and ENVIRONMENTAL issue!

Canada’s estimated mineral production in 2010 was $41.3 billion; more than 80 percent of the total was accounted for by

- Ontario (18.6 percent),
- Saskatchewan (17.2 percent),
- British Columbia (17.1 percent),
- Quebec (16.4 percent),
- Newfoundland and Labrador (11.1 percent).

- Destruction of ecosystem
- Land destruction
- Wildlife effects
- Air and rain pollution levels due to Sulfuric acid and other contaminants
- Ground water contamination
- Tailing pond leaks affect lakes, rivers
Mining effects on rainfall drainage

The Acid Mine Drainage (AMD) is the number one environmental problem facing the mining industry. AMD occurs when sulphide-bearing minerals in rock are exposed to air and water, changing the sulphide to sulphuric acid. It can devastate aquatic habitats, is difficult to treat with existing technology, and once started, can continue for centuries (Roman mine sites in Great Britain continue to generate acid drainage 2000 years after mining ceased).

Acid mine drainage can develop at several points throughout the mining process: in underground workings, open pit mine faces, waste rock dumps, tailings deposits, and ore stockpiles.
Mining waste takes up a great deal of space, blights the landscape and often affects local habitats. By its very nature it can constitute a serious safety hazard. Poor management may allow acidic and metals containing drainage to the environment, it can result in contaminated dusts be spread by the wind, and can also pose a physical risk. Indeed, the failure of structures such as dams built to contain mining waste has lead to many accidental spills with extremely serious consequences.

**The Danger of Environmental Impact is very high – is it worth the economic value?**
Occurred in the Cariboo region of central BC - began August 4, 2014 with a breach of the Imperial Metals-owned copper and gold mine tailings pond, releasing its water and slurry with years worth of mining waste into Polley Lake. The spill flooded Polley Lake, its outflow Hazeltine Creek, and continued into nearby Quesnel Lake and Cariboo Creek. By August 8th the four square kilometres sized tailings pond was empty. Water tests showed elevated levels of selenium, arsenic and other metals. Imperial Metals had a history of operating the pond beyond capacity since at least 2011.

The spill has been called one of the biggest environmental disasters in modern Canadian history – which has been denied by BC government!
Air Quality is Seriously Compromised
PART 3:
A Review of the Environmental and Health Impacts of Mining on Aboriginal Peoples in Ontario
OVERVIEW

First Nations, Inuit and Metis people have been the most vocal opponents to these issues:

- History of Mining in Ontario
- Ontario Mining Legislation
- Aboriginal Treaty Rights
- The Environmental Impacts of Mining
- The Health Impacts of Mining on Aboriginal Peoples
- Occupational Health & Safety Issues
- What You Can Do: Citizen Advocacy and Coalition Building

In the Eastern Provinces
History of Mining in Ontario

- Province has long history of mining compared to other provinces
- “Free Entry” allowed prospectors to access any land owned by the Crown
- 5.4% province currently under active mining claims

In the Eastern Provinces

- Total value of mineral production estimated at over $9.8 billion dollars (2012)
- Two thirds of these were gold or base metal (iron, nickel, lead and zinc) mines, with a palladium and a diamond mine also in operation
- Recent discoveries in “Ring of Fire” means that remote First Nations communities will experience most of the social and environmental impacts from this project
Amendments include:

- amending the Act’s purpose to encourage mining activities “in a manner consistent with the recognition and affirmation of existing Aboriginal and treaty rights,” including the duty to consult;
- expanding the list of lands where no claims may be staked; incorporating consultation with Aboriginal communities in mining legislation and regulations;
- introducing a dispute resolution process for Aboriginal-related mining issues;
- prohibiting staking or the establishment of a new mine in the “Far North” if there is no community-based land use plan for the area, or if the land use designation is “inconsistent” with mineral exploration and development.

On October 28, 2009, Bill 173 (the Mining Amendment Act, 2009) received Royal Assent, concluding a multi-year process to bring Ontario’s Mining Act into the 21st century.
Aboriginal Treaty Rights

Leaks, Spills, Pollution, Desecration

- Aboriginal and Treaty Rights are collective rights which stem from the Royal Proclamation of 1763 and are affirmed within the Canadian Constitution of 1982.
- When this issue has been challenged, the courts have consistently ruled in favour of the continuing efficacy of Aboriginal and Treaty Rights.
- Treaty rights set against a possible economic boom makes it a complex relationship.
- Positive impacts (job opportunities, increased infrastructure spending and revenue) versus negative effects (unequal sharing of benefits, loss of revenue after mine closure, changes to the social, cultural, health of the communities, environmental impacts) need to be considered by the community.

The Risk is far too great!

Big Trout Lake Experience with Platinex Inc. encapsulates issues many Aboriginal communities face when dealing with mining industry.
Environmental Impacts of Mining

- A single mine is the centre of a web of development that includes the construction of roads, power-generating facilities and transmission lines, impoundment areas, and dams.

- **Effects on Water Quality** (pollution, mixing zones, effects of methyl mercury contamination, depletion of fish stocks, sedimentation, turbidity)

- **Land Impacts** (waste rock, slag and toxic tailings, hazardous waste) include soil contamination (smelting, airborne pollutants, bioaccumulation, potential fuel spills) and landscape fragmentation (reduction of forest habitat for wildlife, increase in hunting & fishing pressures, and indirect impacts).
Health Impacts on Aboriginal Peoples in Ontario

Uranium Mining and the Serpent River FN Experience

- Workers not warned of dangers; no concern for the environment; no long term monitoring; health effects of uranium mining on the local population; toxic milling and tailings; airborne radioactive and radon particles; ethical use of uranium

Diamond Mining and the Attawapiskat Experience

- Land fragmentation; lack of economic spin-off; effects on community; water contamination; methyl mercury contamination; land impacts; impact on wildlife
Occupational Health & Safety Issues

- In 2013, 25 critical injuries and three traumatic fatalities were reported to the Ministry of Labour for the mining sector.

- To date in 2014, six fatalities have been reported to the Ministry of Labour.

Over the past 10 years, in the Ontario Mining sector:

- 337 critical injuries were reported to the Ministry of Labour.
- 24 fatalities were reported to the Ministry of Labour.
- 193 occupational disease fatality claims were allowed by the WSIB.

In 2014, Ontario launched a comprehensive mining review to improve health and safety of workers across the country.
What You Can Do:
Citizen Advocacy

Environment Canada’s National Pollutant Release Inventory

provides information on over 400 pollutant materials including potential health effects from exposure and best available current information on safe exposure thresholds:

http://www.ec.gc.ca/inrp-npri/
What You Can Do: Coalition Building

**MiningWatch Canada**

is a coalition of 18 environmental, social justice, Aboriginal and labour organizations:

http://www.miningwatch.ca/

**Community Coalition Against Mining Uranium**

is a grassroots organization that is sponsoring the Citizens' Inquiry into the Impacts of the Uranium Cycle: uraniumnews@mail.ccamu.ca

*Nurses’ Voices can support these Initiatives!*
PART 4: DISCUSSION
Digging for Truth and Acting for Change Together!

Thank you