



# Health Considerations of Resource Development Projects for Proponents and Municipalities

Industrial projects have the ability to impact health, both positively and negatively. The many positive aspects of resource development, such as a stronger economy and increased employment opportunities appear to be well understood by proponents and municipalities and are recognized as a socio-economic determinant of health. However, large resource development projects, if not understood, managed and planned for adequately can also have negative impacts on health through their direct and indirect impacts to health care services, community health, the socio-economic determinants of health and environmental health.

This information sheet is meant to help natural resource development companies and communities better understand the potential areas of impact that are of concern to Northern Health. While this list does not encompass all potential impacts and does not identify the many potential positive benefits, it is meant to provide a general overview of the types and range of impacts that we would like to have identified and mitigated as part of the environmental assessment and permitting process(es).

## Potential Health Impacts of Resource Development

### Health care infrastructure and services

Industrial activities can present a large challenge to health by impacting health care services, both in the construction and operations phase of the project. Industrial development can impact health services by:

- Increasing the access and burden to primary care services from their transient work force;
- Increasing the burden to walk-in clinic type services and emergency departments to meet primary care needs of the transient work force;
- Increasing the access and burden to pharmacy services from the transient work force in host communities;
- Increasing the burden to trauma care and emergency department services from workplace and other injuries. It is our experience that a young, male dominated workforce with access to money can also lead to increased risk for injuries;
- Increasing the associated impacts and burdens placed on pre-hospital care, patient transport services, laboratory and diagnostic imaging services, after hours care, surgical services and critical care services;
- Increasing the access and burden to primary care services as employees and their families move into communities;
- Increasing the access and burden to perinatal (pre and post-natal) services as young families move into communities;
- Increasing the access and burden to specialists (e.g. obstetricians, pediatricians, etc.);



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- Increasing the impact and burden on mental health and addictions services. It has been documented that industrial camp life, shift work, access to money, the feeling of powerlessness linked to resource management decisions and a shift in demographics can lead to increased drug, alcohol and mental health issues; and
- Increasing pressures on human resources. As opportunities for employment increase and housing, living and transportation costs rise it becomes harder to Northern Health and its partner agencies to recruit and retain staff. For example, this has been demonstrated by the difficulty of recruiting paramedics in areas where emergency medical technicians are sought by industry.



### Community health and wellness and the socio-economic determinants of health

In addition to the direct impacts on health services, industrial development can also place strains on community health and the socio-economic determinants of health by:

- Creating barriers for the transient work force to access healthy foods, physical activity and activities that promote health and wellness, which can place long-term strains on the health care system in host and home communities;
- Increasing barriers to accessing preventative and public health services due to shift or camp work schedules;
- Increasing communicable disease rates due to such factors as sanitation, drug and alcohol use and a highly mobile work force dominated by certain demographics;
- Impacting family cohesion and stresses through shift and camp work and the boom and bust nature of resource development;
- Increasing barriers to accessing safe and affordable housing when property and rental prices rise (and then later fall), especially for the susceptible sub populations;
- Increasing health and economic inequities;
- Placing increased burden on day-care and school systems when young families move into communities;
- Placing increased burden on transportation infrastructure through increased traffic volumes and industrial transportation needs;
- Loss of tax base for maintaining community services and infrastructure once the boom has passed;
- Decreasing education levels as young workers leave school to pursue lucrative job offers that require minimal education.



### Impacts to environmental health:

Environmental impacts associated with resource development as well, have the ability to impact human health depending on the extent of the impacts and the location of the nearest receptors by:

- Impacting drinking and recreational waters;
  - Impacting air quality;
  - Creating noise and vibration; and
  - Creating or increasing electromagnetic fields



When camps or work sites require sewer systems, drinking water systems or food premises, this also falls under the environmental health umbrella. Please note that these activities may require permits and approvals under the Drinking Water Act and Regulation and the Public Health Act Sewerage System Regulation, Food Premises Regulation and Industrial Camps Health Regulation.

### Minimizing the negative, maximizing the positive

It is important that the potential impacts of resource development projects are well understood so that these can be managed and planned for appropriately. It is because of this that Northern Health recently developed a new Office of Health and Resource Development. It is our goal to work in partnership with proponents, regulatory agencies and municipalities to understand and adequately address and mitigate potential negative impacts that may be associated with natural resource development projects, while maximizing the positive impacts that these developments can bring to our communities.



### For more information, please contact:

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